June 2025 • Issue #576

AMSTATNEWS

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Scan me!

influence community knowledge

Learn more and get involved in WSDS 2025 at *ww2.amstat.org/wsds*.

AMSTATNEWS

JUNE 2025 • ISSUE #576

Amstat News welcomes news items and letters from readers on matters of interest to the association and the profession. Address correspondence to Managing Editor, *Amstat News,* American Statistical Association, 732 North Washington Street, Alexandria, VA 22314-1943 USA, or email *amstat@amstat.org*. Items must be received by the first day of the preceding month to ensure appearance in the next issue (for example, June 1 for the July issue). Material can be sent as a Microsoft Word document, PDF, or within an email. Articles will be edited for space. Accompanying artwork will be accepted in graphics file formats only (.jpg, etc.), minimum 300 dpi.

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

features

columns

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.*

STAT*tr@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*.

ASA BOOK CLUB

Love a good book and even better conversation? **The ASA Book Club** meets every second Friday to discuss thought-provoking reads across data, statistics, and beyond.

Follow the ASA Book Club on LinkedIn and join the next dynamic discussion! *www.linkedin.com/showcase/106487207/admin/dashboard*

TELLING OUR STORIES

Check out the latest Telling Our Stories video featuring former ASA President and retired US Census Director **Rob Santos** at *www.youtube.com/watch?v=-SKMYzWtev4*. Then, go behind the scenes with ASA podcast hosts Donna LaLonde and Ron Wasserstein as they talk to Santos and DVA Productions' Anna Soldatova and Dmitrii Petrov about how the video came together—from concept to final cut. *https://magazine.amstat.org/podcast-2*

PREDICT 5

WINNERS

CONGRATULATIONS TO THE PREDICT 5 WINNERS

This global competition invited high school, college, and graduate students to apply their statistical and data analysis skills to predict outcomes for real-world events taking place in April, ranging from climate research to sports stats and cryptocurrency.

The challenge was for participants to predict the following:

1) Number of climate-titled articles in *Nature* in April 2025 (7)
2) Closing price of Bitcoin on April 30, 2025, at 5:00 p.m. ET ($94,207.31)
3) Domestic box office gross for *A Minecraft Movie* during April 2025 ($383,559,863)
4) Toyota Camry sales in the US for April 2025 (28,350)
5) Home runs hit by the LA Dodgers in April 2025 (36)

The winners are **Michael Carnival** of the University of West Florida, **Max Aronson** of Amherst College, and **Justin Guo** of Montgomery Bell Academy.

Learn more at *ww2.amstat.org/mathstatmonth/predict5contest.cfm*.

Judges at the Detroit, Ann Arbor Chapters Michigan Science and Engineering Fair: (from left, clockwise) Alexander Verros, Andrew Ekstrom, Karry Roberts, Bern DeBacker, Zeynep (Tuba) Suzer-Gurtekin, Frank Murdock, Wei Chen, Sukanya Das, and Hon Yiu (Henry) So. —Page 38.

Photo Courtesy of Karry Roberts

member news

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Building Regional Bridges: Introducing Regional Innovation Conferences

Ji-Hyun Lee

In February 2024, hundreds of applied statisticians and data scientists gathered in New Orleans for the ASA Conference on Statistical Practice. The energy was high. We shared tools, explored new methods, and connected over a shared mission: solving real-world problems with statistics. Many attendees left feeling inspired, equipped, and part of something larger.

By these measures, CSP was a success for those able to travel to New Orleans. However, the ASA Board decided to suspend CSP this year due to lower registration and a shifting conference landscape. This strategic pause gave us a chance to reflect on how to better serve our community, especially in an environment where statisticians and data scientists now must choose among overlapping events while facing tighter time and resource constraints.

Before we look ahead, it's worth recalling the original vision laid out by the working group in the November 2009 President's Corner. They saw the conference as a space to elevate statistical leadership, not just through technical expertise, but also by building communication and other soft skills essential for leading applied projects. They emphasized supporting career development, particularly for students and early-career professionals, by sharing diverse career paths and practical advice. The working group also called for sessions and workshops that tackle real-world methodological challenges such as messy data and evolving programming needs. Finally, they stressed the value of collaboration between statisticians and nonstatisticians, even suggesting partnerships with other professional societies to foster broader engagement.

Upon reflection, these emphases remain relevant, so what was missing? In listening to our members—especially those from smaller institutions, state agencies, and regional organizations—a theme kept coming up: *"How do we bring the benefits of a conference closer to home?"* That's where the idea for **regional innovation conferences,** called RICs, began.

RICs will build on the successes of CSP and continue to provide participants with opportunities to learn new statistical methodologies and best practices in statistical analysis, design, consulting, and programming, with added emphasis on fostering networking, engagement, and collaboration in local regions. As 2022 ASA President Kathy Ensor described community analytics, "bringing the best of statistical science in collaboration with municipal governments, universities, local businesses, NGOs, and community organizations to improve lives through a better understanding of our communities and how we live, work, learn, and play," RICs will do the same.

A while ago, I attended a Florida Chapter meeting in Orlando. During the meeting, a local police officer presented his regression modeling approach to predict criminal incidence in the Orlando area. I thought that was fascinating. Later, I asked him if he had been working with a statistician. He said no. I thought that if the police officer teamed up with local statisticians, it could create a powerful and synergistic collaboration with real benefits to the community. It reinforced for me that there are many local issues in which statisticians can meaningfully engage and help mitigate challenges.

Imagine a RIC that invites city or state leaders, including mayors or governors, to listen and understand their region's challenges. Can we also invite high school teachers and students to introduce them to our work? Can we bring in isolated local statisticians and data scientists working alone or with just a few colleagues at state agencies, banks, or local businesses? We have so much to offer. Further, we can grow and strengthen local networks by connecting statisticians and data scientists, fostering trust, and building lasting relationships between our profession and communities. That kind of engagement strengthens our ties in meaningful ways.

In this era of big data and AI, if we focus only on individual goals for academic achievement (such as peer-reviewed publications and grant funding), we risk missing many opportunities to improve our society. Of course, I recognize measuring genuine impact is challenging within today's academic structures. However, I firmly believe this will change, and it is a conversation we must continue to have. RICs can serve as a bridge, helping to close the gap between scientific research and scalable solutions for local challenges.

With this concept in mind, we envision RICs that would empower local chapters as centers of innovation and provide a regional venue for sharing research and applications valuable for statisticians and data scientists from all employment sectors.

By leveraging our established chapter networks and building strategic partnerships, RICs have the potential to do the following:

- Create organic networking opportunities among members across different chapters in a region
- Share best practices and innovations relevant to local contexts
- Build collaborative and sustainable partnerships that address regional challenges
- Strengthen the ASA community while celebrating the richness of regional perspectives

When we first discussed the concept of RICs during an ASA Board meeting last year, the directors' reaction was overwhelmingly positive. Among them, Melinda Holt, professor of statistics and dean at Sam Houston State University, shared her excitement with me:

> I am excited that the ASA is pursuing the regional innovation conference model! I truly believe that regional conferences are unique opportunities for collaboration and community-building. As I share regularly, the Conference of Texas Statisticians has played a pivotal role in my career. It is where I gave my first presentation as a student, where I reintroduced myself to colleagues when I moved back to Texas, where I met my future employer, and what led to my service on the Council of Chapters Governing Board, then the ASA Board of Directors. COTS launched the careers of many of my students. Regional conferences will increase engagement because they are moderately sized, are relatively inexpensive, and require minimal travel time. That makes them accessible to many students, junior faculty, isolated statisticians, and universities or small businesses with limited travel funds.

That is exactly what I envisioned.

There is also an opportunity to strengthen the regional contributions to existing conferences. This could include a discounted registration category for members of chapters in the region and creating chapter-specific programming. Looking ahead, we might also consider a formal request for proposals process that allows a chapter or a group of chapters to propose serving as the host for events such as Women in Statistics and Data Science or the Symposium on Data Science and Statistics.

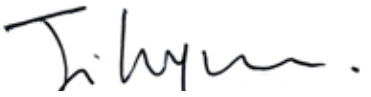
For RICs, there would be logistic support, including commitments to leverage ASA resources to secure sponsorship, apply student and early-career travel funds to support participation, and use ASA networks to identify potential collaborators. As with section-hosted conferences, we envision two levels of support. Tier 1 involves the chapter(s) and regional partners operating largely independently. Tier 2 represents a more collaborative model between the chapter(s), regional partners, and ASA.

Conference organizers would complete an event planning form and submit a proposal to the ASA office far enough in advance to allow the board of directors to review it in consultation with the Council of Chapters Governing Board. This timeline ensures both thorough evaluation and sufficient lead time for effective planning and implementation.

This is still a work in progress. But our goal is clear: to support ASA chapters as engines of regional innovation and give more members access to high-impact, community-driven events. By doing so, we hope to create a stronger, more interconnected ASA, rooted in shared mission, local relevance, and national reach. These efforts are about building strong, sustainable bridges both within our community and beyond the ASA.

Stay tuned as the policy framework continues to evolve. And if your chapter is interested in piloting a RIC, we would love to hear from you.

We envision resilient, regionally rooted collaborative partnerships that foster innovation and drive meaningful change. Let's work together to make it happen!



Highlights of the April 4–5, 2025, ASA Board of Directors Meeting

Ronald Wasserstein, Executive Director

On Friday, April 4, ASA President Ji-Hyun Lee called to order the first 2025 meeting of the ASA Board of Directors. The board met at the ASA headquarters in Alexandria, Virginia.

During the meeting, the second "Telling Our Stories" video premiered via webinar.

The highlights of the board meeting follow.

Actions

The ASA Board of Directors:

- Appointed Tianxi Cai, Runze Li, and Xiaotong Shen as editors of the *Journal of the American Statistical Association* Theory and Methods for 2027–2029, with 2026 as a transition year.
- Appointed Weile He as editor of *Statistics in Biopharmaceutical Research* for 2026–2028.
- Approved changes to the ASA constitution and bylaws to grant the treasurer voting rights on the executive committee.
- Approved signing a letter of intent to sell the ASA headquarters building in Alexandria, Virginia. The sale process will take 12–16 months due to rezoning requirements. The association is selling the building, its headquarters since 2006, because it no longer needs that much space. The ASA will find a new headquarters during the coming 12 months.
- Established the Katherine K. Wallman Award for Transformative Impact on Federal, State, and Local Statistics. The award honors the memory of Kathy Wallman, who served as 1992 ASA president and chief statistician of the US for 25 years. The award will recognize small groups or individuals who significantly advance the relevance, credibility, utility, and objectivity of official statistics at federal, state, or local levels in ways that solve pressing policy problems and promote public trust.
- Approved revised transition and continuity plans for the staff positions of director of finance and administration, associate executive director, and executive director.

2025 Board of Directors

Ji-Hyun Lee, *President*

Jeri Mulrow, *President-Elect*

Bonnie Ghosh-Dastidar, *Past President*

Jenny Thompson, *Third-Year Vice President*

Susan Paddock, *Second-Year Vice President*

DuBois Bowman, *First-Year Vice President*

Melinda Holt, *Third-Year Council of Chapters Representative*

Tomi Mori, *Second-Year Council of Chapters Representative*

David Corliss, *First-Year Council of Chapters Representative*

Jana Asher, *Third-Year Council of Sections Representative*

Jennifer Parker, *Second-Year Council of Sections Representative*

Sharina Person, *First-Year Council of Sections Representative*

Ingrid Van Keilegom, *International Representative*

Antje Hoering, *Publications Representative*

Jean Opsomer, *Treasurer*

Ron Wasserstein, *Executive Director and Board Secretary*

Huge News from the ASA!

Members have elected **Brian Millen** of Biogen as the 122nd president of the association.

Also elected:

Julia Sharp, Vice President

Martin Slawski, Council of Sections Representative

Ruixiao Lu, Council of Chapters Representative

Pedro Silva, International Representative

Congratulations to all!

Their terms officially begin on January 1, 2026, but they will join the ASA Board at its November meeting this year. Details at *https://tinyurl.com/ptunrn5z.*

Reports and Discussions

- Derek Curtis II, ASA director of finance and administration, reviewed the 2024 year-end financials. The association finished the year in the black, with help from strong market gains.
- ASA Treasurer Jean Opsomer presented the status of the ASA investment portfolio and reviewed the performance of our investments against various benchmarks. He noted that investment performance tracked the market closely.
- Amanda Malloy, ASA director of development, shared the results of fundraising for 2024. She also reviewed the new projects rolled out in the past year, including legacy pages, the corporate partner program, and the Dionne Price Public Lecture.
- The board discussed strategies for mitigating the impact on JSM 2025 attendees resulting from government reductions in force and loss of funding for research. We understand these are challenging times for many in our community and we're committed to making JSM 2025 accessible to all. Please submit your request for discounted registration at *https://amstat.jotform.com/team/meetings/jsm-2025-discount-reg-request*.
- The board continued reviewing its processes for making public statements based on suggestions received by the Scientific and Public Affairs Advisory Committee. The executive committee of the board will finalize and publicize the updated document detailing these processes.
- Steve Pierson, ASA director of science policy, updated the board on developments within the federal government and the ASA's responses to those developments thus far. He noted that recent developments have considerably changed the direction of the second year of *The Nation's Data at Risk* report. He also updated the board on federal agency and scientific research budgets.
- Vice President Dubois Bowman and Council Vice Chair Elizabeth Mannshardt presented the Membership Council's annual report, highlighting key achievements and upcoming initiatives. Staff and council leadership will address the issues raised by the Membership Council committees.
- The Leadership Support Council and board of directors met to address concerns about committee member engagement and explore strategies for improvement. The results of the discussion will inform future policy and practices of the council and presidents-elect.
- Tomi Mori, second-year Council of Chapters representative, reported on the activities and initiatives of the Council of Chapters Governing Board. The council noted that the Southern California Chapter is celebrating its 100th anniversary this year, the first chapter to reach this milestone.
- Jennifer Parker, second-year Council of Sections representative, reported that the council approved two new interest groups: Mobile and Wearable Data Science and Stats Up AI. The council is reviewing and updating invited session allocations for sections for JSM 2027 and 2028.
- Lee updated the board on the components of her Building Bridges initiative, including new collaborations with *Nature Medicine* and the American Evaluation Association. President-Elect Jeri Mulrow introduced her Communities in Action initiative, aimed at equipping ASA members with the skills and knowledge to engage with their communities to effectively communicate the value of data-driven decisions.
- ASA Associate Executive Director Donna LaLonde introduced a proposal to develop regional innovation conferences in collaboration with ASA chapters. These conferences, a component of the Building Bridges initiative, will foster networking, engagement, and collaboration locally.
- LaLonde and Alex Hanlon, professor of statistics at Virginia Tech, presented the findings from the ASA member survey and solicited board input on follow-up areas.
- The board brainstormed potential speakers for the 2026 Dionne Price Lecture Series. The board will select the 2026 lecturer at its next meeting.

The board will have its next full meeting August 1–2, 2025, in Nashville, Tennessee, immediately prior to JSM. ■

Grace Wahba Awarded 2025 International Prize in Statistics

The International Prize in Statistics Foundation has awarded Grace Wahba the 2025 prize in recognition of her groundbreaking work on smoothing splines, which has transformed modern data analysis and machine learning.

Wahba was among the earliest to pioneer the use of nonparametric regression modeling. Recent advances in computing and availability of large data sets have further popularized these models, especially under the guise of machine learning algorithms such as gradient boosting and neural networks. Nevertheless, the use of smoothing splines remains a mainstay of nonparametric regression.

Wahba earned her PhD in statistics from Stanford University in 1966 and joined the University of Wisconsin-Madison in 1967 as the first female faculty member in the department of statistics. She remained there for 51 years, retiring in 2018 as I.J. Schoenberg-Hilldale Professor Emerita.

In seminal research that began in the early 1970s, Wahba developed theoretical foundations and computational algorithms for fitting smoothing splines to noisy data. Her sustained contributions led to a rigorous mathematical framework and practical techniques for extracting meaningful patterns from imperfect observations, a challenge that lies at the heart of statistical analysis.

Her joint work on reproducing kernel Hilbert spaces (RKHS) and the famous "Representer Theorem" showed that optimizing functions over infinite-dimensional spaces could be reduced to finite-dimensional problems, making previously intractable computations feasible. She also developed "generalized cross-validation," a regularization method now widely used for automatically selecting optimal smoothing parameters, solving a critical practical problem in data analysis.

"Grace Wahba's contributions have had a profound and lasting impact on statistical methodology and practice," said Jessica Utts, chair of the International Prize in Statistics Foundation. "Her early insights into regularization and smoothing have become essential tools used daily by statisticians and data scientists working across nearly every scientific field."

Often called "the mother of smoothing splines," Wahba was practicing data science before the term was even anticipated. Her work has seen practical applications in fields ranging from climate science to medical imaging. Her techniques have been used to analyze spatial patterns in global temperature data, predict disease risk factors, and enhance image reconstruction in various medical contexts.

Wahba's work has also been recognized as foundational in modern machine learning. Her methods form a pillar of contemporary artificial intelligence and were instrumental in the development of popular kernel-based algorithms such as support vector machines.

"Grace has been an inspiration and a role model to me ever since I first met her 50 years ago," said Sir Bernard Silverman, past president of the Royal Statistical Society and Institute of Mathematical Statistics. "She was one of the pioneers of genuinely applicable computational statistics and always spent time talking to people in applied fields, as well as in statistics."

Wahba

"I can remember visiting her in the 1970s and, each week, she would go off to a 'liver lunch,' which was not the menu but the topic of medical research in which she was collaborating at the time," Silverman recalled. "She knew, and demonstrated to her graduate students and collaborators, that the only way to do proper interdisciplinary work was to get a proper understanding of the substantive field."

In addition to her stellar research contributions, Wahba has been a mentor and role model for women in mathematics and statistics throughout her career. She has advised numerous PhD students who have gone on to become leading figures in the field, with several department chairs and one member of the National Academy of Sciences among her academic descendants.

Wahba's achievements have been recognized with numerous honors, including membership in the National Academy of Sciences and American Academy of Arts and Sciences. In 2021, the Institute of Mathematical Statistics established the Grace Wahba Award and Lecture in her honor.

Wahba will receive the prize, which includes an $80,000 award, in October 2025 at the World Statistics Congress, organized by the International Statistical Institute. ■

MORE ONLINE
Read about the International Prize in Statistics at *www.statprize.org.*

STAFF SPOTLIGHT

Meet Rachel Mills, Administrative Assistant for Volunteer Engagement and Chapter Relations

Mills

Hello! My name is Rachel Mills, and I am excited to be the American Statistical Association's new administrative assistant for volunteer engagement and chapter relations.

My career has been entirely made up of support and administrative roles. For the decade prior to coming to the ASA, I served in different roles on the administrative team at a full-service accounting firm. I have been known to say that I still don't know what I want to be when I grow up. And while that is a bit tongue-in-cheek, it is true that what I have always loved best about administrative roles is the opportunity to support others' visions. The chance to assist in organization, introduce structure, and work with a team to further those visions has always been where I've felt most at home. I am excited to be able to use these skills to support the members of the ASA.

I was drawn to this position knowing that members play a vital role in advancing the ASA's mission, and I feel privileged to work with professionals who are passionate enough to give their extra time and energy to the ASA and their communities. Having just a few months under my belt, I am still a little surprised this is my job. I get to assist exceptional folks who are doing exceptional work? Okay!

When I'm not working for the ASA from my home office in Topeka, Kansas, I am probably being a homebody and spending time with my spouse (Jono), our cat (Hammy), and a book. When you do get me out of the house, you'll find me birding (I'm a novice, but proud member of my local Audubon society), traveling, and trying to hold on to my self-awarded title of "favorite aunt" with my seven nieces and nephews. My favorite thing is when I get to combine several of these activities. One recent example was an opportunity in 2024 to travel to Newfoundland and Labrador with my parents, where we watched Atlantic Puffins begin their nesting season at Elliston. It was a beautiful trip!

I'm so honored to be here, and I hope I'll get to see many of you in Nashville in August! Feel free to tell me your favorite bird when we meet! ■

SIGNIFICANCE HIGHLIGHTS

Is It Luck or Skill? May Issue Focuses on Prediction Tournaments

This issue's cover feature is a must-read for anyone who enjoys the educational guessing games known as prediction tournaments. And if you don't enjoy them, because you don't do very well in them, you're in good company. As the article reveals, neither did the great Stephen Hawking!

Also included is the latest statistical thinking about a famous, 113-year-old tragedy. It's widely assumed working-class passengers were more likely to perish when the *Titanic* sank, while the rich (and, per maritime convention, the women and children) survived. But, as you'll see, it's rather more complicated than that once you consider other variables.

Additionally, this issue tackles the rise of randomized, noncomparative trials, which are now being published in high-impact journals despite being described by experienced clinical trial statisticians as "absolutely terrible" and "disastrous." The implications of this trend are massive.

May Highlights

- The Monty Hall paradox and medicine–Understanding the classic puzzle via a practical application for medicine.
- Profile: Mary Eleanor Spear–Learn about the career and legacy of a US government draughtswoman turned data visualization pioneer.

Access the digital version of *Significance* through the ASA membership portal. *Significance* is also online at *www.significancemagazine.com*. ■

CHANCE HIGHLIGHTS

Newest Issue Focuses on AI, 2024 Data Challenge Expo

Donna LaLonde and Wendy Martinez

The latest issue of *CHANCE* includes two special themes: artificial intelligence and the 2024 ASA Data Challenge Expo. To better understand members' needs and investigate efforts for the use and adoption of AI within the statistical community, the American Statistical Association Committee on Data Science and Artificial Intelligence conducted a survey on how ASA members use AI. Committee members Mark Glickman and Jun Yan discuss the results of the survey in "ASA Members' Perspectives on the Use of Generative AI."

Next is an essay written by Edward Melnick and Ron Melnick titled "Comparing Traditional Statistical Modeling to AI Approaches." Edward passed away in September 2024 while the article was under review, but it is included in this issue, along with memories of his achievements.

The last article related to AI is titled "Statistical Decision Theory: Using a 1940s Idea to Fix a Problem in 21st Century AI." Jeff Dominitz and Charles Manski offer their perspective on how and why statistical decision theory should replace out-of-sample approaches for assessing model performance.

The ASA Data Challenge Expo is an annual contest cosponsored by the Statistical Computing, Government Statistics, and Statistical Graphics sections of the ASA. Contestants are challenged to analyze a specific data set using statistical, machine learning, and visualization tools and methods. The submissions are presented and judged at the Joint Statistical Meetings, and awards are presented in two categories: students and professionals. This issue includes articles written by all the winners in the student category.

To set the stage, Jodie Smylie of NORC and colleagues write an introduction to the General Social Survey, which was the 2024 challenge data set. Then, first-place winners Ujjayini Das and Andrew Forrester contribute "Do People Trust Enough to Respond to Surveys?" This is followed by "Analysis of Mental Health and Substance Use Disorders Pre- and Post-COVID-19," written by second-place winners Bryanna Schaffer and Yichi (Christie) Song. The final article is titled "Investigating American Optimism: Evidence from 2022 General Social Survey (GSS) Data" and is written by third-place winners Md. Mahedi Hasan, Wooyoung Kim, Jacqueline Carlton-Wargo, and David Rice.

In addition to the articles about AI and the data expo are an article by Bahareh Zahirodini and Moinak Bhaduri, "Marking Contemporary America's Attitudinal Stance Toward Modern Businesses: A Bayesian Attempt to Detect Deviation Patterns Based on Demographics and Politics," that addresses societal attitudes and an article by Jitendra Ganju, "When Bias in Interpreting a Clinical Trial Result in a Press Release Crosses a Line," that discusses the reporting of clinical trial results.

The issue wraps up with a few columns. Eric-Jan Wagenmakers responds to the Taking a Chance in the Classroom column in the September 2024 issue ("Puzzling Probabilities of Probability Puzzles"). His letter is titled "Why Bayesians Need Not Be Puzzled by Probability Puzzles." In the One Thing About… column, Miguel de Carvalho discusses why we need to know the answer to the question, "R, Python, and calculus: Are they on the same page?" Finally, History Chronicles editor, Penny Reynolds, offers her second column of a series, "Best of Three: Three Women Who Revolutionized Statistical Practice," in which she describes the life and contributions of Jessamine Whitney (1880–1941).

The editors welcome all ideas and contributions, which can be emailed to *chancemag.editor@gmail.com.*

ASA members can view *CHANCE* by visiting the member portal. ■

Practical Significance | Take Two: Celebrating MSAM with Claire Bowen, the Inaugural Dionne Price Public Lecture Presenter

Claire McKay Bowen delivered the inaugural Dionne Price Public Lecture this April during Mathematics and Statistics Awareness Month. To commemorate this event, Bowen joined *Practical Significance* cohosts Donna LaLonde and Ron Wasserstein for an illuminating conversation about her statistical journey, the influential mentors who shaped her career path, and her perspective on what "statistics awareness" truly means in today's data-driven world.

Donna LaLonde: Claire, tell us a bit about your day job.

Claire Bowen: My official title is senior fellow, and I lead the data governance and privacy practice area in the family and financial well-being division at the Urban Institute. The Urban Institute is a nonpartisan public policy research organization based in Washington, DC, focused on social and economic public policy issues like justice, housing, health, and tax. The Urban Institute was founded during Lyndon B. Johnson's administration to study the nation's urban problems and assess the impact of Johnson's "Great Society" initiatives.

But then, what is my role as a senior fellow? I work on conducting different evidence-based public policy research. My focus is on developing technical and policy solutions for safely expanding access to confidential data, such as taxpayer data. One of my biggest projects is working with the Statistics of Income Division at the Internal Revenue Service.

My other hat is more managerial. I am the practice area lead for the data governance and privacy practice area. I help provide internal and external clarity about our organization's work. I communicate our expertise and missions effectively and strengthen our impact. I also support employee development and a sense of belonging, facilitate cross-cutting projects and initiatives, and incubate emerging ideas and areas of work.

Donna LaLonde: What do you see as the role of statistics in serving the public good? How is it evolving as our society becomes more data-driven?

Claire Bowen: That is such a great question. I believe now more than ever, statisticians need to play a role or be more involved in our conversation about how society is evolving into a data-driven one. But I'm going to pause and say I'm not a fan of the term "data-driven" because we still need to have that human element. We should be talking about decisions being evidence-based or data-informed or thinking about what the story is. The human element is a key part, and we need to consider thoughtfully what the data are telling us.

Now to the heart of your question. In our society, many people see statistics and take them at face value without understanding where those statistics come from. As statisticians, we must be involved in that conversation to help people understand what data contributed to that statistic,

how to interpret it, and what it means in practice. I've been saying for a while now that statisticians aren't great at communicating or advocating for the work we do. We often get bogged down in technical details, like explaining how we came up with a regression model, which totally bores people. They want to know the story behind the statistics and how it can make a real difference in society.

For example, one of the projects I'm currently seeking funding for is aimed at improving access to mental health care for Spanish-speaking communities in Central Texas, particularly for pregnant women and mothers of young children. That's more compelling than saying, "I'm going to apply data governance and privacy principles to protect longitudinal data."

Ron Wasserstein: I'd like to hear about your mentors—one or more people who have influenced you—and how those experiences stand out for you.

Claire Bowen: I always recommend that students and early-career professionals have a roster of different mentors, because it's hard to find one perfect mentor who can help with all the different kinds of challenges in your career or balancing your personal life.

And so, the same thing for me is that I have several mentors. The first one is my postdoc adviser, Joanne Wendelberger. She was great and influential in thinking about work-life balance. She told me about what it was like to be a mother of three and how that balanced with her work and becoming a manager at Los Alamos National Lab.

Jeri and Ed Mulrow have also been such great mentors in thinking through work-life balance and leadership. They both work in public policy research institutions. And I've talked to them about issues I've encountered at work and asked how they would resolve them. They've been able to give me some great advice.

Another person is someone who can help you navigate some of the political challenges at your work. I usually recommend finding a mentor who's at work but not your supervisor. You want to find somebody who's outside that chain of command who you can still talk with about the idiosyncrasies of your job, but who can provide advice and advocate for you. For me, that's Len Berman. He's been such a great mentor in helping navigate the intricacies at the Urban Institute. And Rob Santos, before he left to become director of the US Census. I do joke around that he advocated for me to take a management role but then said, "Oh, by the way, I'm going to become the Census Bureau Director, so peace out. You're in charge now." It wasn't directly like that, but he kind of did that to me.

And then, finally, thinking about Sally Morton—she has also provided a lot of great advice to me about leadership and our role in statistics. She did work in public policy, as well. So, I got some great advice from her about how one might go about advocating for some of the policies we want to see with statistics.

Donna LaLonde: What initially drew you to statistics?

Claire Bowen: I started out studying physics because I wanted to understand how the world works, like knowing why the sky is blue and how airplanes fly, right? Those are some classic questions you hear in physics. However, within the first year of my college studies, I realized mathematics is the language of science. So, I pursued a dual degree in mathematics and physics at Idaho State University.

And after learning all these new math and science concepts, along with conducting some research on my own in a few labs, I started talking about them with my spouse, who was somebody I was dating at the time. He told me, "You seem to really enjoy statistics."

It was that moment when I realized what I liked the most about research and trying to answer these questions was the analysis aspect. And so, to borrow from the famous quote from John Tukey about statisticians—I just like playing in other people's backyards. I didn't want to limit myself to just one field of science. It made sense because I kept hopping around different physics research projects. I was in a radiation physics lab. I worked in a biophysics lab, where I analyzed DNA and RNA interactions. I did some educational physics work, and I just kept hopping around. I thought, "Oh, this is all so cool. I can't focus on one thing." But statistics? You can explore them all. It is the key to learning about these different areas, especially in public policy. I can work on education, health care, tax policy, labor, economics, and much more.

Ron Wasserstein: What is the one fundamental aspect of statistics you wish everyone understood?

Claire Bowen: I'm going to start by paraphrasing a joke I've heard, which is there are liars, damn liars, and statisticians. In statistics, there are often two sides to every story, especially when we consider the full lifecycle of data and how we think about collection, storage, transfer, analysis, dissemination, and, ultimately, the termination of that data.

As we train the next generation of researchers, practitioners, public policy members, and just general members of society, we should be advocating for understanding the full life cycle of data and how it affects the statistics we report.

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

So, getting to your question, I want people to understand where that statistic came from. That's fundamental. For example, each summer I teach a class where I have students come up with two different statistics. It's like an in-class activity. I say, "You each have a policy question. You must come up with two different statistics that are technically correct for that given question you're assigned, but they seem to contradict each other or at least appear drastically different." And the data must be US-based just because we're focused a little more on US policy.

Some of the questions I pose for them are: What is the average student loan debt? What is the primary factor that causes homelessness? At what age are women less likely to get pregnant? One student who was assigned the last question shared how frustrating it was to find data that included women who smoked but didn't account for that aspect of their life or other health factors that could impact women's likelihood of getting pregnant.

He said something like, "This is really important because this is a global challenge—declining birth rates." And so, we should have data and analysis that reflect these different health aspects if we want to address this global problem. This goes to the heart of your question. As we train the next generation of researchers, practitioners, public policy members, and just general members of society, we should be advocating for understanding the full life cycle of data and how it affects the statistics we report.

Ron Wasserstein: What advice would you have for people who want to get better at their technical communication skills?

Claire Bowen: Yes, the first thing I tell people is, "You need to figure out who exactly the audience is. Just saying your audience is 'lay' or 'the general public' is not useful at all." Because when you create a dissemination product—like talks, blogs, reports, or peer-reviewed papers—for everyone, it ends up being for no one. So, if you find yourself referring to a lay audience as your target audience, it's time to dig a little deeper. Are you speaking to someone in your community? Is it a local public policy official (which is different than a state or a federal-level official)? Are you thinking about being a health industry professional because you're doing health care research? Or is it someone in agriculture? Is it a farmer, or someone implementing certain kinds of policy in agriculture? So basically, understanding your audience is key to trying to refine your communication approach.

And so, once you know who your audience is, think about the story you want to tell. This applies whether you are writing a blog post or a technical paper. Let's go a little more on the technical side. For example, I just recently had a project meeting with a few of my colleagues, and we were discussing how we're going to update a paper we're submitting for a peer-reviewed journal. There are a lot of results, a lot of simulations, and some people try to cram them all into the paper because they think, "Oh, it's a technical paper. It's for peer review. That's fine, we can just shove it all in." But there's a page limit. Also, not everybody who reads your work wants to slog through all those results.

So, the key focus here was identifying the story or message we wanted to convey. What do we want the researcher—statistician or computer scientist reading that paper—to take away? That helps guide us in selecting which results to highlight and telling that story or message we wanted to convey.

That's the framework you need to think about. What level of technical difficulty or how broad you want to go. It's like this inverse. If you want to reach a broader audience, you give less technical detail. If it's a narrower audience, you can go more in-depth. ■

JEDI CORNER

JSM: A Time to Connect (but Make a Plan)

The Joint Statistical Meetings isn't just one of the largest gatherings of statisticians and data scientists on the calendar. It's also a major event for using statistical science to promote justice, equity, diversity, and inclusion. JEDI researchers, students, and advocates from across the spectrum will gather in Nashville August 2–7 to share recent studies and emerging methods; make connections; and advocate for justice, equity, diversity, and inclusion through and within the analytics community.

One of the greatest aspects of JSM is the number of organizations participating in the event, including many dedicated to serving specific communities. These include the International Chinese Statistical Association, International Indian Statistical Association, Korean International Statistical Society, and Caucus for Women in Statistics and Data Science. Check them out in the community table area of the EXPO if you are represented by one of the groups to get ideas for reaching out to other communities of which you are a member. Also, all these organizations sponsor or co-sponsor JSM sessions, so make sure to attend one.

The ASA Justice, Equity, Diversity, and Inclusion outreach group is cosponsoring three sessions this year. On Sunday at 4 p.m., the focus is on education in invited session #486, New Possibilities in Statistics Instruction. Then, on Monday at 8:30 a.m., the ASA Social Statistics Section, ENAR, and JEDI will present Modern Statistical Methods and Applications That Enrich Society. This session has something for everyone. Attendees will learn about emerging methods that can be applied to a wide variety of important problems. On Wednesday at 2 p.m., JEDI is teaming with the Committee on Scientific Freedom and Human Rights and Section on Statistics in Epidemiology for a session on displaced and refugee populations. Organized by Sahar Zangeneh from RTI, the session stems from a CSFHR initiative on analytics to support refugees led by longtime justice advocate David Banks.

This is a challenging time for many DEI programs and teams in the United States. JSM will highlight how diverse groups are rising to meet today's challenges.

With so much to see and do at JSM, it can be helpful to plan. It's easy to get caught up in trying to do a dozen things at once, and the rush can leave you exhausted. In developing your own JSM program, be sure to include down time each day. Also, go to the meetings for sections and other groups that interest you. The papers will be there when you go home but the in-person experiences can't be replaced. If you have a particular goal, such as talking with the author of a paper or leaders in an organization, be sure to block out time for it. Include a couple of hours to visit the EXPO. With time included for networking and rest each day, your plan will become an invaluable tool for a successful JSM experience.

JSM has much to offer beyond the conference in Nashville. The online program is available to everyone (and for many previous years, as well). You can mine the information there to find the latest in DEI research and methods. You can also find people working in your areas of interest and see how they are approaching the same problems. Searching the program will help you connect with the many ways the ASA supports DEI initiatives.

Each year, JSM marks the ending of the year past and the start of a new year, full of promise and opportunity. Whether you can attend or not, be sure to use JSM and its resources to open new doors for JEDI projects, connections, and advocacy. ■

JSM NASHVILLE TENNESSEE AUGUST 2-7, 2025

Statistics, Data Science, and AI Enriching Society

With a PhD in statistical astrophysics, **David Corliss** works as a data scientist in industry. He serves on the ASA Board as a Council of Chapters representative and is the founder and director of Peace-Work, a data for good nongovernmental organization.

MORE ONLINE
View the JSM program at *https://tinyurl.com/2cnu3zh9.*

JUNE

TIME SERIES This Month in Statistics History

BIRTHDAYS

1623 Blaise Pascal is best known for developing foundational concepts for modern probability in 1654 in a series of letters with Pierre Fermat. He also developed an early mechanical calculator in 1642 and was a prolific writer; his Pensées is considered by some a masterpiece of French prose.

1781 Siméon-Denis Poisson, whose name is most associated with the Poisson distribution. It was developed to model jury decision-making but gained traction in 1898 with Bortkiewicz's analysis of Prussian horse kick data. Another example of Stigler's Law of Eponomy, it had already been derived in 1711 by Abraham de Moivre. It was independently rediscovered in 1908 by Ed Molina.

1787 William Cogswell was one of the five original founders of the ASA. A preacher, not a mathematician, he shared with the other founders the belief that society and the social order could be best represented by numerical information—statistics in the original meaning.

1858 Alice Lee was one of the first women to graduate from University of London, working with Karl Pearson for most of her career. Her doctoral research outraged her (male) examiners, as it demonstrated that skull volume and intelligence were uncorrelated. Craniometry was used to 'scientifically prove' both genius and the inferiority of women and minorities.

1866 Charles Davenport, ASA Fellow 1921. Director of Cold Spring Harbor Labs, he introduced Galton and Pearson's biometric methods to America. A keen proponent of eugenics, his so-called 'scientific' justifications for reducing the population of 'degenerates' affected US policy on race and immigration for decades and were models for Nazi extermination programs.

1876 William Sealy Gosset, one of the first modern industrial statisticians, is best known as "Student" and for developing Student's t-statistic and t-distribution while working for Guinness Brewery. Fisher said he was "one of the most original minds in contemporary science."


PEARL

1879 Raymond Pearl, ASA Fellow 1920; ASA President 1939; Chief of the Statistical Division of the US Food Administration 1917–1919. One of the first biostatisticians to combine mathematics and statistics to interpret population genetics, he is best known for the Pearl-Reed-Verhulst logistic growth model.

1880 Willford Isbell King, ASA Fellow 1917; ASA President 1935. Political economist and statistician for the US Public Health Service, he may be best known for trying to take ASA funding support from the *Annals of Mathematical Statistics* in 1933 after endorsing it in 1930.

1881 Hilda Hudson, a distinguished mathematician and pioneer of quantitative aeronautical engineering, also developed the classic SIR model of epidemic infectious disease with Ronald Ross in 1916–1917.

1883 Mary van Kleeck, ASA Fellow 1945; Chair, ASA Committee on Governmental and Labor Statistics. Labor and women's rights advocate and architect of the 1938 Fair Labor Standards Act, she exposed exploitation and abuse of workers through novel application of mixed quantitative and qualitative methodology.

1886 William Fielding Ogburn, ASA Fellow 1920; ASA President 1931; editor of the *Journal of the American Statistical Association* 1920–1926. One of most prolific sociologists of his generation, he is best known for the concept of "cultural lag" and social evolution through invention, accumulation, diffusion, and adjustment.

1893 Prasanta Chandra Mahalanobis, ASA Fellow 1961; Royal Statistical Society Fellow 1954. Father of statistics in India and founder of the Indian Statistical Institute and journal Sankhyā. Best known for the Mahalanobis distance and Feldman-Mahalanobis model.

1895 Charles P. Winsor ASA Fellow 1949. Best known for developing the method of winsorization, or "clipping," of outliers by setting them to prespecified percentiles of the data.


LUBIN

1896 Isador Lubin, ASA Fellow 1944; ASA President 1946. Head of Bureau of Labor Statistics 1933–1946.

1900 Samuel A. Stouffer, ASA Fellow 1940. Best known for his method of combining *p*-values from independent statistical tests as a test of the joint null. He also developed novel survey instruments and performed the first large-scale survey of soldier health.

1910 Maurice S. Bartlett, ASA Fellow 1951; Guy Silver and Gold Medals; RSS President 1966. Best known for Bartlett's test for homogeneity of variances; he introduced Monte Carlo methods to ecology and epidemiology and did work on stochastic processes, time series, and multivariate analyses.

1912 Alan Turing, father of AI and theoretical computer science. The leader of Bletchley Park codebreaking efforts during WWII, his contributions to probability and statistics are almost unknown, as most of these papers were classified until the 1980s. He developed sequential analysis (independent of Abraham Wald) and, with Jack Good, the Bayesian and Good-Turing frequency estimation.

1915 John Tukey, ASA Fellow 1949; US National Medal of Science 1973. Although he claimed to loathe theoretical statistics for not informing data analysis, he made important contributions to simultaneous inference, time series (fast Fourier transform, spectrum analysis), and ANOVA (coined the acronym). He was a pioneer in both computational statistics (coining the terms "bit" for binary digit and "software") and interactive computer graphics, which he considered central to exploratory data analysis.


TUKEY

1916 David B. Duncan, ASA Fellow 1962. Best known for the Duncan multiple range test and the *k*-ratio *t*-test (the first Bayesian multiple comparison procedure).

1923 James Durbin, ASA Fellow 1960; one of the few winners of all three Guy medals; President, RSS 1986. With Geoff Watson, best known for the 1950 eponymous bounds test for serial correlation in regression.

1926 Marie D. Eldridge, ASA Fellow 1969; Director, Statistics and Analysis, National Highway Traffic Safety Administration; Director, Research Triangle Institute; President, Washington Statistical Society

1927 Sylvia Ostry, ASA Fellow 1972; Chief Statistician of Canada, 1972–1975. Distinguished economist and academic, government, and non-governmental organization leader. Chief economist of OECD Paris.

1934 Michael Hills is best known for his classic book with David Clayton, *Statistical Models in Epidemiology,* a link between statistical modeling, estimation, and epidemiology.

MORE ONLINE
Download references at *https://magazine.amstat.org/wp-content/uploads/2025/05/History-References.pdf.*

EVENTS

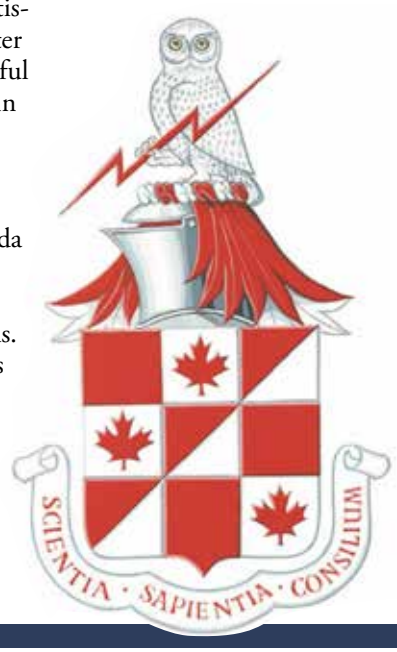
1937 On June 17, Jerzy Neyman introduces the confidence interval in a talk given at the Royal Statistical Society. Listeners are not enthusiastic. AJ Bowley wonders aloud if confidence intervals are just a "confidence trick" and doubted their validity and use.

1948 William Feller (ASA Fellow, 1939) publishes a unified derivation for what is now known as the Kolmogorov-Smirnov goodness-of-fit test. He combined and simplified the proofs derived by Andrei Kolmogorov (published in Italian in 1933) and Nikolai Smirnov in 1939. Widespread adoption follows when Frank Massey (ASA Fellow, 1966) presents a practical description with examples in 1951.

1949 The term "frequentist" is first used by Maurice Kendall (ASA Fellow 1950): "It might be thought that the differences between the frequentists [Venn, Neyman, and von Mises] and the non-frequentists (if I may call them such) [Jeffreys] are largely due to the differences of the domains which they purport to cover."

1958 Ed Kaplan and Paul Meier (ASA Fellow 1959) publish their now-famous Kaplan-Meier method for the analysis of censored observations. It took more than 12 years to become one of the most-cited statistical papers of all time after it was recognized as a useful tool for survival analysis in clinical studies.

1990 During the annual meeting on June 5, the Statistical Society of Canada is formally presented with the Letters Patent conferring the SSC Coat of Arms. It was designed by Charles Maier, Royal Heraldry Society of Canada. How many statistics-related items can you spot? To find the answers, visit *Amstat News* online.



Welcome TO OUR NEWEST MEMBERS

Jonathan Abbamonte
Abiodun Adedeji
Gboyega Adepoju
Mercy Mawusi
Mawusi Agbley
Kayode Ahmed
Justice Akuoko-Frimpong
Ghaida Al-Asmri
Mohammed Gaus Alam
Hyreen Alice
Mawanda Almuhayar
Jessica Seeger Alvey
Prasanna J. Ambati
Deeanna Antosh
Lynda Aouar
Salena Torres Ashton
Ozzy J. Ayebo
Subrato Banerjee
Jose Pablo Barrantes
Xander Barron
Moses Bashir
Drew Baumgartel
Richard Baumgartner
Edward D. Bein
Kanean Eric Beohou
Tracy Bergemann
Maithili Bhate
Yuan Bian
Millicent Naa Oye Boadu
Ricardo Bolado
Haley F. Burger
Joshua Garrison Burkhart
Abner Heredia Bustos
Arjun Kishor Butani
Jessica Lin Cannon
Martha Xiaofan Cao
Ana W. Capuano
Jairo A. Cardenas
Michelle Casey
Sujatro Chakladar
Lap Sum Chan
Timothy Chan
Joonha Chang
Zhi Chang
Jessica L. Chapman
Fei Chen
Wenzhe Chen
Kaiming Cheng
Chia-Ying Chiu
Sezgin Ciftci
Glen Wright Colopy
Amanda Marie Cook
Joel M. Correa da Rosa
Noah Cowan
Rachel C. Crady
Erin Craig
Xinping Cui
Russell Dahlke
Hongying Daisy Dai
Chad M. Dau
Barbara A. Day
Rahul De
Laura De Los Santos
Barry Rene DeCicco
Michelle Detry
Rikeenkumar Dhaduk
Junyu Ding
Xiao Ding
Sophia DiPrimeo
Rogen Alzuelo Doronila
Norca Maritza Dowling
Lindsay Dunham-Maher
Daniel Chukwunonso Egboh
Pontus Elmrin
Noah J. Faas
Saeed Fanoodi
Gabriel Fanucchi
Olivia Feltenberger
Chelsea Fink
Alexis Fleming
Rachel Flodin
Angelice Renee Floyd
Forrest Frantz
Aundrea Frederick
Cara Fredericks
Nathan Scott Friedrichsen
Boran Gao
Netsanet Gebregziabher
Samson L. Ghebremariam
Jagannath Ghosh
Puja Ghosh
Daniel Giorgis
Fulya Gokalp
Nathalie Nicole Gonzalez
Rafael Armando Gonzalez
Lauren A. Gould
Austin Grandpre
Margaret Ann Gray
Haonan Gu
Sarah Haberlack
Robert Matthew Haigney
Lingjun Han
Asher Hanson
Monica Harding
Sara Hassani
Xin He
Benjamin Hechtman
Carolyn Herrera
Hilary Hickingbotham
Wei-Wen Hsu
Xuewen Huang
Drew Hurst
Azmat Hussain
Abduelwahab Hussein
Ryna Irengbam
Andrea Nicole Jackson-Sagredo
Manisha Jaiswal
Iman Jaljuli
Ramakrishna Jannepureddy
Omotomilola O. Jegede
Hailey Jensen
Dana Jian
Tian Jiang
Jomarie Jimenez-Gonzalez
Yuying Jin
Jack M. Jones
Jamie Joseph
Kabita Joshi
Ketki Joshi
Shubham Karnawat
Adam B. Kashlak
Parneet Kaur
Lucy X. Kerns
Marcel Satsky Kerr
Han Kha
Nathan Kidwell
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Grace Oluwatoyin Korter
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Heryee H. Leong
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Mengyan Li
Qingxiang Li
Xingyao Li
Yang Li
Yuelong Li
Zetan Li
Kristin Lilly
Bryan Lin
Boyang Liu
Danping Liu
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Laura Abigail Lyman
Spencer M. Lyon
Tasren Nazir Mahamooth
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Sampson Mao
Horia Marginean
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Frank Wayne Marrs
Gregory J. Matthews
Vincent Mei
John Boby Mesadieu
Phillip H. Middleton
Jacob Minkin
Heidi Miracle
Bernardo Modenesi
Pronoy Kanti Mondal
Kathryn Morris
Jean Morrison
Vamsi K. Mudimela
Vinodh Nallasamy
Aniqa Nayim
Losha Ndemeno-Tegomoh
Jacquelyn Elizabeth Neal
Albert C. Nedelman
Troy J. Ness
Zhanghao Ni
Thanyaporn Noiplab
Blake Nourse
Anthony Nunnery
Olanrewaju Olukoya Odumuwagun
Benjamin S. Ofuru
Elizabeth L. Ogburn
Jacob Oram
Dennis Owusu
Chella A. Palmer
Dominic M. Paranzino
Ji-Eun Park
Sarah Park
Christopher L. Pate
Elizabeth Patterson
Chandler Pendleton
Blake Peterman
Amanda M. Phillips
Ksenia Polson
David J. Poole
Penelope S. Pooler
Martin Posch
Cornelis Potgieter
Nandini Prasad
Marina Ptukhina
Michael Raftery
Jack Raley
Shalini S. Ramachandra
Ben J. Raphael
Henrik Ravn
Sairam Rayaprolu
Timothy Reese
Tadden Rempel
Amy Riffe
Mason Robinson
Angela Rockwell
Denice W. Ross
Seth Rozelle
David Kofi Saah
Enakshi Saha
Saranjeet Singh Saluja
Michele Santacatterina
Angelica Rosario Santos
Md Shamim Sarker
Eric Louis Schillinger
Golden Se
Md Tuhin Sheikh
Brooke Shelley
Daniel Shi
Kenichi Shimizu
Marta Dykhuizen Shore
Valdelírio Silva
Anna Smyk
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Yanglei Song
Josey Christina Sorenson
Eric J. Spencer
Remy Ryan Spoentgen
Langdon Stutzman
Dong Sun
Jiaxi Sun
Xinyue Sun
Manfred Tan
Hua Tang

Sergey S. Tarima
Russell Telford
David Kevin Teuscher
Ned Tilbrook
Justin Tondt
Carson Trego
Noah A. Tri
Andrew Maxwell Triska
Iulia Cristina Tudor
Kshitij Tyagi
Robert L. Umholtz
Linda Valeri
Rajat Verma
Vikash Verma
Vanja Vlajnic
Thao Vu
Michael Paul Waltz
Haoyang Wang
Peili Wang
Shikun Wang
Tingchang Wang
Hunna Watson
Yingjia Wei
John T. Whelan
Paige M. Wilson
Helen Wolde
Kai Choi Wong
Kimberly Wright
Jianzheng Wu
Siqi Wu
Ke Xu
Katherine L. Yi
Jun Yin
Isao Yokota
Shan Yu
Dmytro Zaharnytskyi
Bowen Zhang
Lucas Zhang
Xinyang Zhang
Xinyi Zhang
Yan Zhang
Yuting Kathy Zhang
Zihan Zhang
Guolin Zhao
Nan Zheng
Junze Zhou
Miaomai Zhou
Ruiwen Zhou
Xuanyi Zhou
Weiwei Zhu
Zewen Zhu
Chava Zibman ■

New Member Spotlight: MATTHEW TRANG

This month, we spotlight new member Matthew Trang, who answered the following questions so we could get to know him better:

How did you become interested in statistics and/or data science?

Initially, my background was primarily in commutative algebra and algebraic geometry. I began working with my PhD adviser, Dr. Zvi Rosen, on combinatorial neural codes—a mathematical tool for studying the convexity of receptive fields in brain cells like place cells. I spent a year on this before he connected me with a neuroscience lab at the Max Planck Florida Institute for Neuroscience. Since then, I've become deeply engaged in three research problems that I find fascinating:

1. Predicting the future behavior of mice based solely on the neuronal activity in specific cortical regions in response to external stimuli
2. Understanding whether the behaviors will eventually stabilize or become chaotic
3. Exploring how topological data analysis can be applied to non-spatial neuronal signals, particularly in identifying geometric information that reveals how mice make decisions

Working on these problems has also exposed me to many statistical aspects of data science, such as dealing with data imbalances as a natural characteristic rather than a problem, calibrating models for optimal performance, and understanding the bias-variance trade-off. Ultimately, I've developed a deep passion for data-driven neuroscience research and find it more fulfilling than anything else I've done.

What do you consider your dream job?

Currently, I am eager to pursue an opportunity for a quantitative neuroscientist position.

What do you hope understanding statistics and/or data science helps you accomplish?

I am currently focusing on exploring various deep learning architectures, particularly long short-term memory networks and transformers. One of my goals is to leverage these architectures to model past behaviors and predict future ones.

Is there a particular group of statisticians you would like to reach out to you?

I would be excited to hear from the Neuro Technology Center at Columbia University, especially Liam Paninski, whose book *Neuronal Dynamics: From Single Neurons to Networks and Models of Cognition* has been a great source of inspiration. Additionally, I would love to connect with Josh Starmer, the creator of the StatQuest YouTube channel.

What is your favorite hobby?

I used to play soccer frequently in my free time, but since the sport isn't as popular in the US, I now typically go to the gym, where I enjoy boxing with the punching bag. I also love visiting parks, particularly a spot called Butterfly World, which is not too far from where I live.

What is something you would like people to know about you that we haven't asked?

I am currently seeking an internship opportunity. If you happen to come across this post and you or anyone you know has an opening for a data-driven modeling project, please feel free to reach out to me via email at *ttrang2019@fau.edu*.

ASA Recommends Five Policy Actions to White House AI Panel

Chaitra Nagaraja and Mark Glickman

These recommendations reflect the ASA's ongoing commitment to elevating the profile of statisticians and data scientists in policymaking. Members of the Scientific and Public Affairs Advisory Committee and the Committee on Data Science and Artificial Intelligence anticipate more opportunities to provide input on AI policy and welcome feedback on their recommendations. To share ideas for future commentaries, email ASA Director of Science Policy Steve Pierson at *spierson@amstat.org*.

In response to the White House's Request for Information on the Development of an Artificial Intelligence Action Plan, the ASA's Scientific and Public Affairs Advisory Committee and the Committee on Data Science and Artificial Intelligence orchestrated the ASA's submission highlighting the essential role ofstatistical science in developing, optimizing, and evaluating AI systems. The committees' five recommendations, summarized below, aim to ensure such systems are both efficient and minimally burdensome.

Establish voluntary best-practice guidelines based on statistical quality assurance methods. A major concern for AI development is managing risk without slowing the pace of innovation. Statistics provides an effective means of achieving this balance by offering methodologies for testing and validating AI systems. Model overfitting, for example, which occurs when AI models perform well on training data but poorly in real-world applications, can be prevented using well-established statistical techniques such as cross-validation and bias-variance tradeoff assessments. Statistical uncertainty quantification ensures AI models provide not only predictions but also an estimate of confidence in those predictions, allowing end-users to make better-informed decisions. Furthermore, companies that incorporate these principles into their development processes will gain a competitive edge, as consumers and businesses will naturally gravitate toward AI tools that produce fair, transparent, and accountable results. Rather than relying solely on external oversight, statistical best practices enable AI to be self-improving while allowing room for necessary safeguards to ensure responsible deployment.

Standardize statistical benchmarks for AI model performance. A targeted initiative to develop standardized statistical benchmarks for AI performance assessment would provide a reliable framework for evaluating AI models by application. By defining statistical metrics for fairness (one of the principles in the Ethical AI Principles for Statistical Practitioners), accuracy, and uncertainty quantification, policymakers can create a foundation for AI evaluation that balances innovation with responsible deployment. This approach ensures AI models meet high performance standards without imposing rigid constraints that may stifle progress.

Incentivize AI system developers to document and share data integrity and model validation procedures. Another important step is incentivizing AI developers to document and share data integrity and model validation procedures, including evidence of maintaining the privacy and confidentiality of individuals. Accountability and transparency are two

AI is a transformative technology with the potential to revolutionize industries, drive economic growth, and strengthen national security. Ensuring successful implementation requires a commitment to sound statistical practice.

principles of ethical AI practice described in the Ethical AI Principles for Statistical Practitioners. By fostering transparency in AI model development, organizations can build trust in their systems while allowing external stakeholders to assess performance and fairness objectively. Encouraging companies to disclose key statistical validation metrics in AI reporting would create a more competitive and trustworthy AI marketplace.

Establish partnerships and collaborations across government, business, and academia. Establishing public-private partnerships and other types of collaborations among AI developers, statisticians, and policymakers can accelerate advances in AI model development and evaluation, including explainability, fairness, and risk assessment. These collaborations would ensure statistical expertise is applied effectively to AI systems, creating a foundation for more robust AI applications. Supporting research initiatives that bring together statisticians and AI practitioners across government, business, and academia would also drive methodological innovations that improve AI performance and accountability.

Supporting the continued collaboration between the National Artificial Intelligence Research Resource Pilot and National Secure Data Service Demonstration is a good example of a policy action that can be integrated into the new action plan. These two efforts have their roots in legislation passed during the previous Trump administration. NAIRR is a promising initiative to harness government and other data for AI methodological and substantive research, with a statutory focus on leveraging publicly available government data. NSDS is a statutorily authorized program that complements the federal statistical agencies in harnessing government data restricted by law or regulation for privacy and other reasons for research and other statistical purposes. The NSDS builds on decades of robust statistical system data governance with strong ethical, methodological, and legal frameworks. There are several collaborative efforts between NAIRR and NSDS already underway, including a technical project to make a safe version of restricted data available for AI research.

Additional joint methodological and data governance projects would advance safe and appropriate access to government data for cutting-edge AI research.

Promote statistical literacy among AI system developers and practitioners. A final action item is the promotion of statistical literacy among AI developers and practitioners. Ensuring that those designing and implementing AI systems have a fundamental understanding of statistical principles will improve model reliability and prevent common pitfalls such as overfitting, biased decision-making, and unreliable predictions. Investing in statistical training programs and integrating statistical coursework into AI-related education would significantly enhance the quality of AI systems being deployed and support implementation of the other policy actions proposed in these comments.

To conclude, AI is a transformative technology with the potential to revolutionize industries, drive economic growth, and strengthen national security. Ensuring successful implementation requires a commitment to sound statistical practice. The role of statistics in AI is not to create obstacles, but to provide tools that produce AI models that can be efficiently governed and are robust, reliable, and adaptable. If policymakers incentivize the private sector to integrate statistical best practices, it will ensure AI continues to evolve in ways that benefit both industry and society, along with maintaining US dominance in the field. ■

Webinar Addresses Ethical Principles for Statistical Practitioners

Stephanie Shipp, Jing Cao, Harold Gomes, Mark Glickman, and Donna LaLonde

Jana Eggers, CEO of Nara Logics, and Andrew Gelman, Columbia University professor of statistics and political science, participated in a webinar related to the ASA's Statement on Ethical AI Principles for Statistical Practitioners on February 6. The event was sponsored by the ASA Committee on Professional Ethics and Committee on Data Science and Artificial Intelligence.

Last fall, CoPE and CoDSAI collaborated to develop the principles, recognizing that AI and statistics are critical pillars in modern practice. The essence is that the ASA advocates for trustworthy AI through robust ethical guidelines. The statement encapsulates its message through the following three guiding principles:

1. **Accountability.** This principle emphasizes the importance of auditability and governance while maintaining professional competence and avoiding blind reliance on AI. It calls for a clear operational framework to monitor the use and deployment of AI systems.

2. **Transparency.** This principle highlights the need for clear communication about AI tasks, benefits, and risks. This includes providing thorough documentation and addressing biases and limitations inherent in AI systems.

3. **Fairness.** This principle advocates balancing individual and collective interests to promote equity and mitigate biases to prevent exploitation.

Mark Glickman from CoDSAI highlighted the relevance of ethical AI principles for statistical practitioners, providing three examples of how statisticians can engage in this dialogue. The first example was related to accountability in algorithmic hiring practices. The second emphasized transparency in the context of robo-advisers in finance. And the third example addressed fairness, particularly in criminal justice. Through these examples, Glickman underscored the importance of statisticians as advocates for ethical AI practice in interdisciplinary teams.

By educating collaborators and addressing potential ethical pitfalls, statisticians can ensure AI tools are developed and deployed responsibly, fostering a more equitable and transparent landscape in statistical practice and AI development.

After the introduction, Stephanie Shipp from CoPE guided the conversation and Q&A with the audience. Below is a summary of Eggers and Gelman's conversation.

Why is ethical AI important to you, especially in the statistical and scientific world?

Eggers emphasized the importance of ethical considerations at the intersection of AI and traditional statistical methods, drawing from her experience in computational chemistry at Los Alamos. She pointed out the challenges faced when transitioning from statistical techniques to AI, particularly in explaining models to material scientists who relied on her calculations for fabrication decisions. This made her passionate about ethical AI, focusing on verifying data, algorithms, and objectives, especially when working with sensitive applications such as military technology. She noted that understanding data and algorithms' intricacies is crucial to ensuring ethical practices and that all three elements—the algorithm, data, and objective—should be scrutinized for ethical implications in AI development.

Gelman noted that the importance of ethical AI, particularly in statistics and science, cannot be understated, especially when considering the potential political and military implications. While discussions often revolve around algorithmic fairness and privacy, the more pressing concerns involve the scenarios of AI misapplication, such as autonomous weapons and AI-engineered pandemics.

. . . storytelling is crucial in understanding complex concepts, often influencing how we interpret information and methods, especially in fields such as statistics and science.

Jana Eggers is the CEO and a board member at NARA Logics, a company focusing on neuroscience-based artificial intelligence. She is a mathematician and computer scientist who brings extensive leadership experience and cutting-edge technology expertise to NARA Logics. She previously worked with companies such as Intuit, Lycos, American Airlines, and Los Alamos National Laboratory, as well as various startups. As Eggers advances the frontiers of AI, her dedication to ethical implementation remains a central aspect of her work.

Andrew Gelman is a professor of statistics and political science at Columbia University. He has a talent for explaining complex concepts to both a technical audience and the public, as demonstrated by his numerous articles in technical journals and an equal number in *The New York Times* and other popular press outlets. Gelman explores the intersection of statistics and ethics, emphasizing the importance of integrity in communicating statistical analysis.

In his view, these issues pose a greater threat than academic concerns, and he emphasized the need to frame the discussion around AI ethics in the context of its potential misuse.

Ethics in AI is fundamentally rooted in human behavior and the organizational structures that encourage cooperative action. Statisticians tend to operate in a more collaborative environment, which places them in a unique position to contribute to discussions about ethical AI.

In answering Eggers's question about the ethical role storytelling plays in statistical practice, Gelman said storytelling is crucial in understanding complex concepts, often influencing how we interpret information and methods, especially in fields such as statistics and science. According to Gelman, rather than simply presenting ideas, compelling storytelling involves exploring the assumptions behind them and the logical consequences that follow, creating a narrative in which the outcome is not immediately obvious. This approach fosters reflection on surprising findings and challenges in predictive models, such as AI, where acknowledging failures can enhance credibility and encourage a more constructive dialogue among proponents and critics. By embracing examples of where methods fall short, both sides can find common ground, advancing understanding and collaboration in pursuing knowledge.

Share examples related to the ASA's Statement on Ethical AI Principles or examples that continue to help us learn about AI ethics in statistics and science.

Gelman emphasized the delicate balance statistics occupies between data abundance and scarcity. He noted that while vast amounts of data allow one to draw conclusions directly, this relationship shifts in many fields, particularly those with limited data such as political science. He argued that core statistics thrive in scenarios in which data is sufficient to inform decisions but not overwhelming to render analysis unnecessary. This balance is essential for ensuring statistical methods add value, rather than simply reaffirming existing biases or misinterpretations.

Eggers built upon Gelman's insights, emphasizing the importance of accountability and critical thinking in statistical analysis. She encourages practitioners to question the objectives behind data collection and the technology used for analysis. By stressing

the importance of not relying unthinkingly on advanced technologies, she advocates considering whether simpler methods, such as decision trees, might be more effective and maintainable.

What is the most important aspect of AI ethics, and how can we make a difference in promoting AI ethics?

Eggers highlighted the significance of explainable AI in fostering trust and understanding in technology. She explained that as AI systems become more integrated into decision-making processes, users must comprehend how these systems arrive at their conclusions. This transparency boosts confidence and allows for better accountability in AI applications.

Additionally, Eggers emphasized the importance of maintaining open communication within teams, as it fosters collaboration and trust among members. She pointed out that team members feeling comfortable sharing their ideas and concerns leads to more innovative solutions and a stronger sense of belonging.

How do we balance AI's environmental impact with the potential benefits of deploying it in certain scenarios?

Eggers expressed concern about the widespread adoption of AI without a conscious awareness of its environmental impact. She emphasized that their AI is designed to be computationally efficient and runs on low-cost hardware. Despite this efficiency, she noted many users don't prioritize environmental considerations when choosing software, often driven by a short-term mindset that equates technological abundance with necessity. She believes this mindset is influenced by societal messaging promoting resource-intensive solutions, even when alternatives exist.

As educators in a data analytics program, how do you thoughtfully integrate AI tools into the curriculum?

Gelman suggested a grading strategy that de-emphasizes homework and emphasizes class participation. He focuses on creating an engaging classroom environment by encouraging students to put away their phones and ensuring exams are conducted in class. He acknowledged that different instructors might approach the use of AI tools in several ways, admitting that he does not have a definitive answer to the ethical considerations surrounding their use.

Eggers suggested emphasizing a broader understanding of tools beyond large language models. She expressed concern about the prevalent focus on LLMs, noting that while they facilitate communication, decision-making occurs differently within the brain, often not reliant on language. To address this, she encourages students to explore a variety of tools and approaches. In her organization, they foster a culture of learning through initiatives like their AI chat sessions and a paper club, where participants engage with diverse topics, ranging from technical subjects to contemporary research, thus promoting critical thinking and active participation.

Find the webinar video and slides at *https://community.amstat.org/ethics/webinars.* ■

The Importance of Human-Centered Machine Learning in Safety-Critical Systems

Akshata Moharir

Machine learning and data science are transforming decision-making in safety-critical domains such as aerospace, automotive, health care, and industry manufacturing. Though these technological advances have many advantages, they do present issues with transparency and reliability. This is where human-centered machine learning plays a crucial role. HCML ensures ML models are not just powerful, but also interpretable, trustworthy, and aligned with human oversight—a necessity in high-stakes situations in which errors can have dire consequences.

Why Explainability Is Necessary in the Context of ML for Safety-Critical Systems

One of the significant issues with the safety-critical applications of ML is the lack of explainability. In other words, an ML model is expected to be both accurate and able to explain the reasons to be accurate. As an example, an ML system in the health care industry is supposed to provide a diagnosis and explain the reasons for choosing the diagnosis to the doctors. In a similar way, ML should be able to provide the reasons for its actions in, say, an autonomous vehicle.

Explainability/interpretability also boosts the confidence of domain experts, regulators, operators, and consumers who interact with the ML systems. When interpretability is taken into consideration while training the ML models, professionals can make better decisions and stay away from automation bias—the tendency of relying too much on ML recommendations without challenging them.

Automation Versus Human Judgment: How to Combine the Two Approaches?

Another essential principle of HCML is to recognize when to employ automation and when to use human input. Although ML can analyze a large amount of data and make predictions quickly, the human element is needed, especially in safety-critical systems. For example, ML systems in the aviation industry are used to monitor various sensors that can give early signs of equipment failure, but human engineers/domain experts confirm these findings before any action is taken. The combination of both ML prediction and human judgment not only improves safety but also assists in reducing uncertainties in the form of false positives or negatives.

Akshata Moharir has more than 12 years of experience addressing complex business challenges across diverse industries such as support, gaming, retail, aviation, and education. She offers expertise in generative AI, responsible AI practices, predictive modeling, explainable AI, natural language processing, fraud detection, and predictive maintenance. She also has extensive experience with large language models, including fine-tuning and optimizing them for specialized applications. Moharir has contributed to machine learning and AI with seven granted patents, one trade secret, and seven scholarly publications. Skilled at leading cross-functional teams and delivering results that exceed expectations, she has a keen eye for detail and a commitment to excellence. She is also passionate about leveraging AI algorithms to drive innovation and deliver value to businesses and customers. She has been working on developing human in loop interpretable machine learning models as lead data scientist at Microsoft.

How to Combat Bias and Make ML Fairer?

It is important to note that ML models are not bias free, and this can be uncertain in high-risk domains such as fraud detection, vehicle safety, or finance. If the training data is biased or partially missing, the ML will make decisions that are worse for some people than others. For this reason, HCML requires the use of large and diverse data sets, the watching of models in real-time, and the inclusion of fairness into the algorithms. We can prevent bias from evolving in the real world when human oversight is applied during the training and validation of the ML models.

Future of HCML in Safety Critical Systems: What's Coming Up?

In the process of ML development, HCML will continue to increase reliability, transparency, and trustworthiness in safety-critical applications. By integrating human-centered principles into ML development, we can create systems that are safe, ethical, and fair in addition to being effective. ■

THE ASA CELEBRATES Award Winners

The American Statistical Association is honored to grant the esteemed Founders Award to five individuals this year for demonstrating exceptional dedication to advancing the mission of the association. The association is also bestowing its prestigious distinction of Fellow on 46 members for their professional contributions, leadership, and commitment to the field of statistical science.

Founders will have served the association for an extended time, usually in a variety of leadership roles wherein effective service or leadership was provided within the ASA or through ASA outreach. A Founder's contributions will have had significant impact on the association beyond the time of their incumbency.

The designation of ASA Fellow has been a significant honor for nearly 100 years. Under ASA bylaws, the Committee on Fellows can elect up to one-third of one percent of the total association membership as fellows each year.

The Founders Award and Fellow designation are two of the highest honors the ASA bestows.

CONGRATULATIONS TO THE 2025 ASA FOUNDERS

Kate Calder
University of Texas at Austin

Mark Glickman
Harvard University

Rob Gould
UCLA

Barry Graubard
National Cancer Institute

Jeff Witmer
Oberlin College
Photo by Jennifer Manna

CONGRATULATIONS TO THE 2025 ASA FELLOWS

Le Bao
The Pennsylvania State University

Benjamin Strong Baumer
Smith College

Robert A. Beckman
Georgetown University

Jacob Bien
University of Southern California

Jing Cao
Southern Methodist University

Stefano Castruccio
University of Notre Dame

Xi Chen
New York University

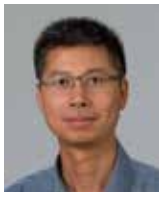
Freda Cooner
Center for Biologics Evaluation and Research

David B. Dahl
Brigham Young University

Abhirup Datta
Johns Hopkins University

Ying Ding
University of Pittsburgh School of Public Health

Andreea Erciulescu
Westat



Yixin Fang
AbbVie

Laura J. Freeman
Virginia Tech

Malka Gorfine
Tel Aviv University

Jeffrey M. Gonzalez
Bureau of Labor Statistics

Simone Gray
Centers for Disease Control and Prevention

Ben Hansen
University of Michigan

Michael Brewster Hawes
US Census Bureau

Stephanie Hicks
Johns Hopkins University

Sally Ann Hunsberger
National Institute of Allergy and Infectious Diseases

Hormuzd A. Katki
National Cancer Institute

Lawrence Lesser
The University of Texas at El Paso

Jianchang Lin
Takeda

Cynthia R. Long
Palmer College of Chiropractic

Yan Ma
University of Pittsburgh

Christopher Malone
Winona State University

Erica E. Moodie
McGill University

Jennifer Van Mullekom
Virginia Tech

Thomas Brendan Murphy
University College Dublin

Kannan Natarajan
Pfizer

Amy O'Hara
Georgetown University

Michael L. Pennell
The Ohio State University

Michael J. Schell
H. Lee Moffitt Cancer Center and Research Institute

Zhenming Shun
Daiichi Sankyo

Ana-Maria Staicu
North Carolina State University

Ying Sun
King Abdullah University of Science and Technology

Donatello Telesca
University of California at Los Angeles

Chenguang Wang
Regeneron Pharmaceuticals

Brian Phillip Weaver
Los Alamos National Laboratory

Julian Wolfson
University of Minnesota

Lan Xue
Oregon State University

Jiajia Zhang
University of South Carolina

Jingfei (Emma) Zhang
Emory University

Kai Zhang
The University of North Carolina at Chapel Hill

Xiang Zhou
University of Michigan

CONGRATULATIONS TO THE 2025 ASA AWARD WINNERS

The American Statistical Association celebrates the individuals in academia, industry, and government who have been recognized for their work and dedication to the statistics discipline. Of the hundreds of nominations received, ASA committees and leadership choose recipients for their roles in promoting the practice and profession of statistics.

Below is a compilation of all the ASA's awards conferred in 2025. Those receiving ASA awards will be recognized at the ASA's awards ceremony following the ASA President's Address Tuesday, August 5, during the 2025 Joint Statistical Meetings in Nashville, Tennessee.

ASA Pride Scholarship

David Asher Ilouz, *Johns Hopkins University*

Bandov

Bravo

2024 Norman Beery Memorial Scholarship

Mona Bandov, *University of Southern California*
Ruben Bravo, *California State University, Monterey Bay*

Edward C. Bryant Scholarship for an Outstanding Graduate Student in Survey Statistics

Aditi Sen, *University of Maryland*

David R. Cox Foundations of Statistics Award

Philip Dawid, *University of Cambridge*

Baidoo

Kubuafor

Lester R. Curtin Award

Dennis Baidoo, *University of New Mexico*
Emmanuel Kubuafor, *University of New Mexico*

Loe

McGough

Gertrude M. Cox Scholarship in Statistics Award

Abigail Loe, *University of Michigan*
Olivia McGough, *University of Washington*

HONORABLE MENTIONS

Ellery Galvin, *University of Colorado, Boulder*; Christine Bui, *Duke University;* and Danielle Tsao, *University of Washington*

Deming Lecturer Award

Jianjun Shi, *Georgia Institute of Technology*

Fergusson

Pfannkuch

Jackie Dietz Best *Journal of Statistics and Data Science Education* Paper Award

Anna Fergusson, *The University of Auckland*

Maxine Pfannkuch, *The University of Auckland*

Van Dam

Mervis

Excellence in Statistical Reporting Award

Andrew Van Dam, *The Washington Post*

Jeffrey Mervis, *Science Magazine*

Dorothy Marie Lamb and Annette Lila Ryne Memorial Scholarship

Valarie Gitau, *University of Massachusetts, Amherst*

Mentoring Award

Naitee Ting, *StatsVita*

Monroe G. Sirken Award in Interdisciplinary Survey Methods Research

Kirk Wolter, *The University of Chicago*

Gottfried E. Noether Distinguished Scholar Award

Xuming He, *Washington University in St. Louis*

Mei

Wei

Gottfried E. Noether Early-Career Scholar Award

Song Mei, *University of California at Berkeley*

Yuting Wei, *University of Pennsylvania*

Bob Riffenburgh Award

Laura L. E. Cowen, *University of Victoria*

Harry V. Roberts Statistical Advocate of the Year Award

Shaida Badiee, *Open Data Watch*

Waller Distinguished Teaching Career Award

Nicholas J. Horton, *Amherst College*

Waller Education Award

Matthew Beckman, *Penn State University*

Samuel S. Wilks Memorial Award

James J. Cochran, *The University of Alabama*

W. J. Dixon Award for Excellence in Statistical Consulting

Heather S. Smith, *California Polytechnic State University*

Griffith

Sharp

Douglas A. Zahn Grant

Emily Griffith, *North Carolina State University*
Julia Sharp, *National Institute of Standards and Technology*

Outstanding Statistical Application Award

Alison Gemmill, *Johns Hopkins Bloomberg School of Public Health*
Alexander M. Franks, *University of California at Santa Barbara*
Selena Anjur-Dietrich, *Johns Hopkins Bloomberg School of Public Health*
Amy Ozinsky, *Johns Hopkins Bloomberg School of Public Health*
David Arbour, *Adobe Research*
Elizabeth A. Stuart, *Johns Hopkins Bloomberg School of Public Health*
Eli Ben-Michael, *Carnegie Mellon University*
Avi Feller, *University of California at Berkeley*
Suzanne O. Bell, *Johns Hopkins Bloomberg School of Public Health*

Statistical Partnerships Among Academe, Industry, and Government Award

Vanderbilt Department of Biostatistics
Tennessee Department of Children's Services

Celebrating the Mentors Who Make a Difference

Each year, the ASA GivesBack group invites ASA members to recognize the mentors who have shaped their journeys. As part of this annual "Thank a Mentor" project, participants are encouraged to submit tributes celebrating the individuals who offered guidance, inspiration, and support. These brief but meaningful reflections highlight what makes a great mentor and remind us of the lasting impact a thoughtful word, uplifting gesture, or timely nudge can have on someone's career and confidence.

Haviland Wright

Submitted by Alison Turner

Haviland was a professor of mine while pursuing my master's in statistics. I was a nontraditional student who hadn't been in a math class for five years prior to starting my master's, and I felt the struggle of being in the classroom immediately upon entering. Haviland was my champion from day one. He helped with questions I had during office hours, but more than that, he believed in my big-picture ideas, even when the details didn't work out. During a final project, I had a great idea to set up an app. I created a shiny dashboard, thought about process and output. In the final hours, I wasn't able to automate data capture, making the whole project unusable. Haviland called me during winter break to tell me how much he liked the idea and to give advice on future ventures. I graduated in 2020, and Haviland and I remain friends to this day. He was my champion and adviser in starting my company; he is my sounding board when I want to talk about pure statistics or mathematics questions. In terms of statistical mentorship, his joy for the field, constant curiosity, and steadfastness is unmatched.

Yehenew Kifle

Submitted by Mouhamed Oloude

Dr. Yehenew Kifle is an assistant professor of statistics in the department of mathematics and statistics at the University of Maryland Baltimore County. Professor Kifle is my academic and PhD adviser. Since I met Dr. Kifle in 2022, he has strived to support my academic journey, especially during challenging moments where I have to conciliate family and academic responsibilities. For instance, Dr. Kifle has made himself available to support and help during PhD comprehensive exams, despite the fact that he is not required to do so. He has provided me with permanent assistance and advice in managing class

registration. Further, Dr. Kifle has helped me in receiving and maintaining PhD funding that was necessary in pursuing my academic journey.

Dr. Kifle understands the needs of students and has the ability to assist his students in finding the balance between their personal life and their academic journey. This is a very unique and valuable skill that many advisers do not empower. Furthermore, Dr. Kifle is an advocate for inclusive excellence. His work and engagement to promote statistics in emerging countries in Africa are underlying. He has led the organization of the ASA-IMS–supported annual African International Conference in different African countries. Dr. Kifle represents a model for underrepresented students. He deserves intellectual and social merits and awards.

Jesse Canchola

Submitted by Russell Yang

Jesse Canchola has made an extraordinary impact on my career and the careers of everyone he has generously mentored. Jesse is patient, kind, and full of integrity. He showed me firsthand how a career can offer both business contribution and personal fulfillment by balancing his day job with leadership of the Committee on Scientific Freedom and Human Rights and the Latin America Community Assistance Foundation. I can't overstate how Jesse's mentorship has shaped my aspirations and the opportunities that I was able to seize. On the CSFHR, he proactively seeks out the opinions of all members (particularly students and young professionals who might otherwise not speak up), selflessly extends his network to statisticians and scientists in need, and carries himself with an infectious passion that inspires us all to continue the work. He volunteers his wisdom (whether technical, professional, or personal) and time to open doors for his mentees and help them imagine possible career paths and leadership opportunities. He also goes out of his way to advocate for student contributions to CSFHR projects. In seeking out his counsel on projects, tough decisions, and trends in ethics/statistics/AI, I've learned that Jesse is someone who will always listen with compassion and insight. Everyone has something to learn from Jesse's profound mentorship. ■

STATS4GOOD

Intelligent Systems in Biostatistics Make Impact on Life

With a PhD in statistical astrophysics, **David Corliss** works as a data scientist in industry. He serves on the ASA Board as a Council of Chapters representative and is the founder and director of Peace-Work, a data for good nongovernmental organization

This week, I am in Salt Lake City for the ASA's annual Symposium on Data Science and Statistics. It's such an amazing group of speakers and experts, gathered to share emerging technology driven by statistical science to make a beneficial impact on life in so many ways.

Biostatistics is always an important research area for ASA members, making SDSS a leading event for the latest developments in intelligent systems for health, medical, pharma, and related applications. So much is happening right now in this area with so much innovation and potential for good that I identified the development of intelligent systems as the top biostatistics opportunity for 2025.

One hot topic at SDSS this year was the new wave of AI. Open-source LLMs have arrived—open-source agents are next! This architecture welds powerful AI tools into a single operation. It starts with a query engine. The query accesses one or more databases, which can be huge. Ordinary LLMs receive a prompt directly, but these RAG (retrieval-augmented generation) tools send the prompt to a search engine and forward the search output to the LLM for processing. Agents are LLMs—often but not always prefaced by a RAG—that add a natural language processing tool to optimize the prompts and often another at the end of the process to make the LLM output easier to use.

With strong predictive power and the ability to leverage large databases, these agentic RAG tools offer tremendous opportunity to develop intelligent systems for biostatistics. Both new and existing biostatistics projects can add RAG to better leverage large medical survey and public health databases. A recently published open-access article in Nature, titled "Retrieval-Augmented Generation for Generative Artificial Intelligence in Health Care," analyzes the potential for using these tools to improve equity in health care research, mitigate bias, and address disparities in access to medical care.

Development of intelligent systems in biostatistics, includ-

ing RAGs, often leverage large publicly available medical databases. The Global Burden of Diseases, Injuries, and Risk Factors Study project supports comparison of risk factors across countries around the world. A medical data science team led by Mohamad-Hani Temsah leveraged GBD data using ChatGPT-4 to develop health care plans optimized for individual patients.

Food and nutrition data from the US Department of Agriculture can be accessed using a RAG to evaluate diets of anonymized individuals in a survey to identify systemic nutritional weaknesses in a population for remedial action.

The World Health Organization continues to report COVID-19 cases and mortality by country by week, going back to the beginning of the pandemic.

These are just a few examples of the many data resources now available. The WHO data collection homepage at *www.who.int/data/#collection* is a wonderful place to look for ideas and resources for your next D4G project.

Data preservation efforts from statistical scientists in every area are having an enormous impact on supporting science, including Data for Good. A team led by Lucky Tran at Columbia University downloaded every publicly available resource from the US Centers for Disease Control and Prevention and copied them to the Internet Archive, a non-profit free public digital library that has become the new home for a lot of federal data at risk of going dark. Jonathan Gilmour of the Harvard School of Public Health has downloaded information about National Science Foundation awards going back to 1960 and added them to the Harvard Dataverse research archive. It's a tremendous wealth of information on high-impact projects and researchers.

Also, looking at NSF grants over time (you all know I'm a time series statistician, right?) maps the trajectory of scientific innovation over decades. This allows us to discern future directions, overlooked areas of research, and a step-by-step "how-to" for advancing science for the public good.

Emerging methods, resources, and architectures for intelligent systems are being applied to an ever-increasing number of use cases in biostatistics—including age-old concerns in health and well-being—in a multitude of ways to create novel solutions for the benefit of all through Data for Good. ■

SDSS
SYMPOSIUM ON
DATA SCIENCE & STATISTICS
MILWAUKEE, WI • APRIL 28–MAY 1, 2026

Getting Involved

In opportunities this month, SDSS will be in Milwaukee, Wisconsin, next year, so start making your plans now. You can visit the 2025 symposium website at *ww2.amstat.org/meetings/sdss/2025* and check out the program for ideas, resources, and connections that support your next Data for Good project.

Also, the ASA is looking for volunteers to serve on committees that further the mission of the association in multiple ways. There are nearly 80 committees working in every area of interest. With so many groups, volunteers are needed regularly. Don't be shy if you are early in your career! Students and young professionals bring important perspectives that are very much needed. You can nominate yourself or recommend someone else by going to the nomination website at *https://tinyurl.com/3dpjhu4r*.

STAT*tr@k*

Statistics Without Borders Empowers Communities with Data

Betty Su

Statistics Without Borders and UNILAG Data Science Bootcamp

Betty Su is a marketing and communications leader with experience in brand building and growth in environments undergoing transformation. She holds a BS in economics from The Wharton School and an MBA from Duke University's Fuqua School of Business.

Many organizations exist to make the world a better place, but not all have access to statistical or related technical expertise. At Statistics Without Borders, the volunteers are working to change that.

Statistics Without Borders is an all-volunteer organization guided by a commitment to equity, transparency, and collaboration. Volunteers are working toward a world in which every community is empowered with statistical expertise to make data-driven decisions that advance humanity. To do this, they collaborate with socially conscious communities around the world to complete pro bono projects in statistics and data science. Projects fall into three primary areas: advising; educating; and building.

- **Advising:** Connected North is a nonprofit focused on improving education outcomes for remote Indigenous communities in Canada. SWB is collaborating with Connected North to identify new sources of data and advise on appropriate analytical approaches, with the goal of measurably improving attendance and high school graduation rates within the Indigenous community.
- **Educating:** Now in its second year, SWB helped organize and teach a two-week data science bootcamp with the statistics department at the University of Lagos. Through this partnership, Nigerian educators, students, and government and industry personnel are better equipped to leverage advanced statistical methods in their work.
- **Building:** SWB is collaborating with Eyesea, a small nonprofit that uses citizen science to map pollution across oceans and waterways. Experts from SWB are working with Eyesea to develop a computer vision model with a user-friendly interface. By building this together, SWB and Eyesea are reducing the manual effort required of citizen scientists and improving how efficiently waterways are cleaned around the globe.

Last year alone, SWB volunteers contributed to 67 projects spanning 27 countries. These efforts have supported organizations providing access to water, safe food, shelter, and energy, creating pathways to economic stability for women and children and helping communities live longer in a cleaner environment with tools to eradicate disease.

Since its founding in 2008 as an ASA outreach group, SWB has grown to include more than 2,500 volunteers around the world, but there is still a lot of work left to do.

Interested in joining? As an SWB volunteer, you will leverage your skills to make a global impact. Join a diverse team of professionals—statisticians, economists, data scientists—dedicated to advancing humanitarian efforts through data. Your expertise will directly support life-changing projects worldwide. Join at *www.statisticswithoutborders.org*.

Want to learn more? View the SWB 2024 Annual Meeting recording at *www.youtube.com/watch?v=JBd_gbPvWgY* to explore SWB's impact and discover more projects driven by volunteers. You can also view SWB's annual report at *https://tinyurl.com/yrwkjya8*. ■

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Tibshirani Gives Brogan Lecture on UniLasso

Robert Tibshirani with Donna J. Brogan before the Brogan Lecture in Biostatistics

Robert Tibshirani, professor of biomedical data science and statistics at Stanford University, presented the 2025 Donna J. Brogan Lecture in Biostatistics on April 10.

Tibshirani has made seminal contributions to statistical methodology, including the Lasso, generalized additive models, and significance analysis of microarrays. He has also coauthored several texts, including *The Elements of Statistical Learning*. His work has been widely recognized with honors, including the Committee of Presidents of Statistical Societies Presidents' and Distinguished Achievement and Lectureship awards, the Statistical Society of Canada Gold Medal, and election to the National Academy of Sciences and Royal Society of the UK.

Tibshirani's lecture was titled "UniLasso: A Novel Statistical Method for Sparse Regression." In his presentation, he introduced 'UniLasso,' a two-stage approach that preserves the signs of the univariate coefficients and leverages their magnitude. Through comprehensive simulations and applications to a variety of biomedical problems, he demonstrated that UniLasso outperforms Lasso in terms of sparsity and model interpretability. He also established asymptotic support recovery and mean-squared error consistency under a novel set of conditions, distinct from the traditional irrepresentability conditions associated with the Lasso.

This annual lecture series honors Donna J. Brogan, a former faculty member at Emory University and chair of the Rollins School of Public Health Department of Biostatistics. For details about Brogan and the lecture series, visit *https://tinyurl.com/4cphnjps*. ■

Obituary
Tracey Gmoser

Barbara Day

Tracey Gmoser, a respected and professional in biostatistics recruiting, passed away on March 15, after a battle with cancer.

Gmoser retired in 2015 after nearly 30 years of dedicating her time to help statisticians build their careers and to help companies develop their biometrics functions. She made a lasting impact on many statisticians over the course of her career and was known for her extensive knowledge of the pharmaceutical industry and her dedication to improving drug development through bringing the right talent to each role she worked in. Her expertise and passion for biostatistics were evident in every aspect of her work.

Gmoser joined Smith Hanley Associates in 1984, where she began as a recruiter and quickly began to develop a team to recruit across all biometrics functions. Gmoser helped develop the next generation of statistical recruiters.

Gmoser's clients looked to her as a trusted adviser in recruitment. Candidates relied on her for mentorship and career advice, and she became known for her commitment to their professional growth. Her ability to understand both the nuances of the industry and the aspirations of individuals made her an invaluable resource to all who worked with her. Her impact was felt across the biostatistics community, where she was a mentor, guide, and friend.

Gmoser was not just known for her professional accomplishments, but also for her genuine kindness, her unwavering support for those around her, and her passion for helping others succeed. In retirement, she enjoyed spending time with her loved ones, cultivating her hobbies, and sharing her vast knowledge with those who sought it. She leaves behind a legacy that will continue to inspire and influence the world of biostatistics and recruitment. May her memory be a blessing.

Student Team Develops Physical Therapy Tool at Columbia Hackathon

Angela Choi

HackingHealth, organized by the Columbia Biomedical Engineering Society, was held in early February in New York City. The hackathon focused on precision and personalized medicine, with tracks in genomics, molecular therapeutics, and marginalized groups. More than 150 participants attended, representing a wide range of academic and professional backgrounds.

During the event, I worked with Trisha Mehta and Doorva Garg from Stony Brook University. The team developed REV!VE, a solution designed to support post-physical therapy patients through real-time, range-of-motion tracking. The system uses four sensors to track the coordinates of three body points, allowing for live feedback on form and completion of exercises.

REV!VE was born from a desire to not only address patient health challenges, but to create a long-term solution for physical therapy patients who struggle to stick to their recovery plans. Data from the National Institutes of Health indicates that 55% of patients self-discharge from treatment, with average no-show and cancelation rates of 17% and 10.2%, respectively. The team aimed to create a solution that could improve adherence and integrate with existing health care systems.

Dive Deeper

- "Sedentary Behavior and Disease Risk" in *BMC Public Health* (*https://tinyurl.com/2tch53zw*)
- World Health Organization Draft Guideline on Physical Activity and Sedentary Behavior (*https://tinyurl.com/3a723cp6*)
- "New Global Guidelines on Sedentary Behavior and Health for Adults" in *International Journal of Behavioral Nutrition and Physical Activity* (*https://tinyurl.com/28wn6crm*)

> Looking back at my experience at HackingHealth, I'm reminded that health care innovation is not just about technology—it's about people.

Our project was recognized as a finalist overall and placed second in the underserved populations track. Mehta and Garg have moved on to other projects, but I am continuing work on the product with Kavya Venkatesan at the University of Pennsylvania, focusing on refining the technology and expanding its application. The aim is to scale up and integrate with health care systems.

Looking back at my experience at HackingHealth, I'm reminded that health care innovation is not just about technology—it's about people. It's about understanding the challenges we face, listening to patients, and using empathy to find solutions. By collaborating with hospitals and physical therapy clinics, we can ease the burden on health care providers while making the nation healthier. ■

Angela Choi is a student at the University of Pennsylvania studying physics. She does research at the Miskin Lab on Microrobots and at the Kleinman Center for Energy Policy on Green Energy Adoption.

Detroit, Ann Arbor Chapter Members Judge Michigan Science and Engineering Fair

Karry Roberts, ASA Detroit Chapter Secretary

Students receive ASA awards of merit and $50 VISA gift cards for their projects at the Michigan Science and Engineering Fair.

Photo Courtesy of Hon Yiu (Henry) So

Judges are (from left, clockwise) Alexander Verros, Andrew Ekstrom, Karry Roberts, Bern DeBacker, Zeynep (Tuba) Suzer-Gurtekin, Frank Murdock, Wei Chen, Sukanya Das, and Hon Yiu (Henry) So.

Photo Courtesy of Karry Roberts

Michigan Science & Engineering Fair projects from Lawrence Technological University, Southfield, Michigan

Photo Courtesy of Karry Roberts

To promote the practice and profession of statistics, members of the Detroit and Ann Arbor chapters once again judged projects at the Michigan Science and Engineering Fair. The fair was held at Lawrence Technological University in Southfield, Michigan, on April 5. Chapter members reviewed all 56 posters at the state level and discussed with students how they analyzed their data.

In past years, chapter members have given various levels of awards. This year, they gave more same-level awards, recognizing more students and streamlining their judging process. They gave 10 awards of merit for effective use of statistical methods with a monetary prize of $50 per project. They also gave out 14 certificates of recognition for those who showed a basic use of statistics.

Members of the judging team this year included Wei Chen, Sukanya Das, Bern DeBacker, Andrew Ekstrom, Frank Murdock, Karry Roberts, Zeynep (Tuba) Suzer-Gurtekin, Hon Yiu (Henry) So, and Alexander Verros.

Awards of Merit ($50)			
Student(s)	Project Title	School	Teacher
Judy Bai	Leveraging Large Language Models and Machine Learning Methods to Identify Biomarker Relationships	Greenhills School, Ann Arbor, Michigan	Cathy Renaud
Christine Cai	Sex-Specific Aging in Reptile Species	H. H. Dow High School, Midland, Michigan	Cynthia Meyer
Tesko Chaganti	The Secrets of Healthy Aging: The Discovery & In Vitro Validation of Novel Senolytic Drugs	Canton High School, Canton, Michigan	Kevin Kollar
Rishi Chowdhury	Enhanced Viability of *Acartia tonsa* Through Micronutrients	Northville High School, Northville, Michigan	Gabriel Pak
Matthew Cui with Hang Dong	Forecasting Stock Trends Using Long Short-Term Memory Networks	Kalamazoo Area Mathematics & Science Center, Kalamazoo, Michigan	Rebecca Joyce
Case Dattolo with Nareen Lovell and Ludmila Parsina	Comparing the Effect of Ethyl Cyanoacrylate and Ethyl Vinyl Acetate on Poly-Vinyl Chloride	Macomb Mathematics Science Technology Center, Warren, Michigan	Jamie Hillard
Suraj Dixit	Developing an Accessible, Low-Cost Organ-On-a-Chip System for In Vitro Drug Testing	Kalamazoo Area Mathematics & Science Center, Kalamazoo, Michigan	Rebecca Joyce
Sesha Sai Aasrith Modem with Vamanshaurya Kommi	Rocket Booster Self-Orientation Algorithm Developed Using PINNs Architecture Trained on Optimized Navier-Stokes Equation Model	International Academy – East Campus, Troy, Michigan	David Lyons
Zara Rehman with Farah Abdelhak	Effect of Halophile Presence on Plant Growth in Saline Soil	Detroit Country Day Upper School, Beverly Hills, Michigan	Karen Lamb
Max Xiao	A Simulacrum of Post Partum Hemorrhage with Dynamic Medical Agents	International Academy, Bloomfield Township, Michigan	Matthew Ferrari

Certificates of Recognition		
Student(s)	School	Teacher
Alina Yuan	Cranbrook Kingswood Upper School, Bloomfield Hills, Michigan	Stephanie Kokoszka
Nour Dakhlallah	Dearborn Center for Math, Science, & Technology, Dearborn Heights, Michigan	Jennifer Gorsline
Nathan Ma with Samer Rahman	Detroit Country Day Upper School, Beverly Hills, Michigan	Harry Fried
Alice Song	Interlochen Arts Academy, Interlochen, Michigan	Hannah Reyes
Jeheon Lee Joanna Ouyang	International Academy, Bloomfield Township, Michigan	Matthew Ferrari
Arnav Sharma, with Aryav Das and Samarth Dunakhe, Ahyoung Song	International Academy – East Campus, Troy, Michigan	David Lyons
Dean Jordan	International Academy – West Campus, White Lake, Michigan	Charles Stewart
Georgia Edmonds Aryaman Mishra with Jason Shaye Sam Zhang	Kalamazoo Area Mathematics & Science Center, Kalamazoo, Michigan	Rebecca Joyce
Joshveer Grewal	Northville High School, Northville, Michigan	Gabriel Pak
Amari Carthron	Saginaw Arts & Sciences Academy, Saginaw, Michigan	Clara Wagner

Students Shine at North Texas Chapter's Inaugural D^3 Event

Those on the committee of judges for the poster competition get to know one another at the start of the session. From left: Yingjie Qiu (UTSW), Kevin Lutz (UTSW), Kemelli Estacio-Hiroms (UTD), Juhee Lee (UCSC), Yun Wei (UTD), Murali Pusala (AT&T), and Hyunwoong Chang (UTD)

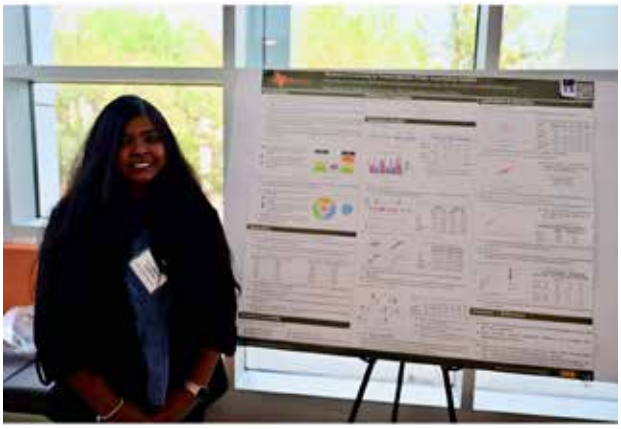
Attendees receive a T-shirt with the D^3 logo, created by Qiwei Li (chapter president), on the front. The back of the T-shirt included UTD and ASA North Texas Chapter logos.

The annual chapter meeting of the North Texas Chapter was organized as the inaugural Dallas and Fort Worth Data Science and Statistics Day, or D^3, which took place on March 28. The event was hosted by the department of mathematical sciences at The University of Texas at Dallas. Those in attendance represented UTD, The University of Texas at Arlington, The University of Texas Southwestern Medical Center, The University of North Texas, Southern Methodist University, and AT&T. The event consisted of a student poster competition, networking dinner, and talk by Juhee Lee from the University of California at Santa Cruz titled "Sparse Bayesian Factor Models for Feature Interactions in Count Table Data with Applications to Microbiome Studies." The event concluded with awards and prizes for the following best student posters:

- **First place:** Jimi Kim (UTD)
- **Second place**: Zifang Kong (SMU) and Dona Hasini Gammune (UTD)
- **Third place:** Yanghong Guo (UTD), Yifei Wang (SMU), and Haoyao Ruan (UTA)
- **Honorable mentions:** Yaga Thomas (UTD), Fariha Taskin (UTD), Tingfang Wang (UTD), and Philmore Koung (UTD)

For event details, photos, posters, and speaker information, visit *www.amstat-nt.org/events/poster-competition.* ■

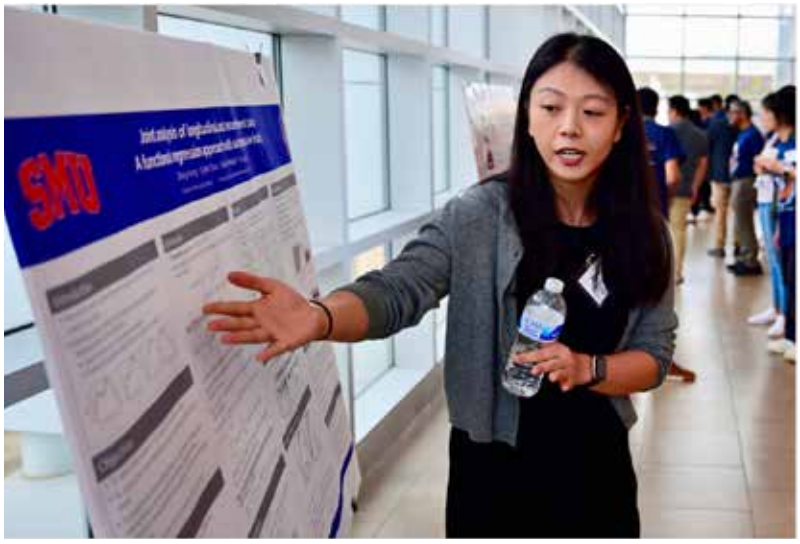
D^3 EVENT PHOTOS



Dona Hasini Vathsalya Gammune is one of the second-place winners of the poster competition. She presented her research on statistical learning for transcriptome-wide association studies and will graduate from UTD with her PhD in statistics this year.

Jimi Kim (right), PhD candidate in statistics at UTD, won the first-place award for the poster competition. Poster awards were presented by Qiwei Li (left).

The judging committee for the poster competition was formed and organized by Xiwei Tang, (pictured) assistant professor at UTD.



Zifang Kong (PhD candidate in statistics, SMU) presents her research on joint analysis of longitudinal and recurrent event data.

Md. Maidul Husain (PhD candidate in statistics, UTD) presents his research on adjusting for ascertainment criteria in cancer risk estimation for genetic mutation carriers. He is also sporting the event T-shirt.

JSM NASHVILLE TENNESSEE AUGUST 2–7, 2025
Statistics, Data Science, and AI Enriching Society

SRMS to Sponsor Host of JSM Sessions

The Survey Research Methods Section is sponsoring several mission-enabling sessions at the 2025 Joint Statistical Meetings in Nashville, Tennessee, August 2–7. These sessions are aimed at promoting survey science, rigorous use of survey research methods, and the role of survey research methods in informing policy.

The sessions cover a wide range of topics that highlight key challenges in contemporary survey research and practice. Invited paper session topics include small area estimation, missing data, differential privacy, and diverse applications using modern surveys. Topic-contributed sessions feature student paper competition winners and address a variety of themes, including social networks, nonprobability samples, the process of producing official statistics, and open-ended survey questions. Many of these topics are echoed in contributed paper sessions. Contributed speed sessions adapt Cochran's sample size rule to complex designs, explore uses of new administrative data sources, and study the effects of poststratification on differential privacy. Posters will investigate multilevel regression, Bayesian inference with complex designs, and uses of AI to process questionnaire data. Participants in roundtable discussions will explore best practices for gathering household survey data, issues related to scientific integrity and statistical ethics, milestones in statistical matching, and common misunderstandings of survey weights. Finally, SRMS will offer a professional development course on nonprobability samples.

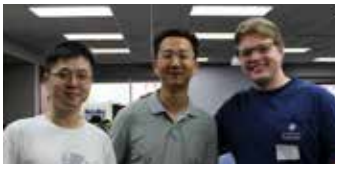
A complete list of activities can be found in the JSM online program, linked from the JSM website at *ww2.amstat.org/meetings/jsm/2025*. To find details about SRMS-sponsored sessions, filter the category by "Survey Research Methods Section." For speed sessions, filter the event type by "Contributed Speed" and choose the speed session number of interest. There are SRMS-sponsored contributed speed presentations in sessions two and six. ■

TEXAS A&M UNIVERSITY Statistics

The Department of Statistics at Texas A&M University proudly hosted the Best of Statistical Science (BOSS) 2025 Workshop on April 25–26, 2025. The two-day event brought together a distinguished group of experts, faculty, and students for a rich program of academic exchange, professional networking, and interdisciplinary collaboration. This workshop was made possible in part through the generous support of Drs. Alicia Carriquiry and James Berger, funded by their Hagler Fellowship Awards at Texas A&M University.

BOSS 2025 featured engaging presentations and insightful discussions led by 16 prominent statisticians. In recognition of excellence in the field, two special honors were awarded during the workshop: the Ronald R. Hocking Endowed Lecture Series in Statistics was presented to Dr. Dipak Dey, and the Inaugural SETCASA Invited Speaker award was given to Dr. Ramses Mena. The workshop also included a graduate student poster session, which showcased the research of 14 graduate students.

The event brought together 77 attendees from 18 universities—including 41 students—creating a



dynamic atmosphere for academic exchange, learning, and collaboration.

On Friday evening, attendees gathered for a dinner celebration, which concluded with the presentation of the famous "Deely Awards," adding a lighthearted and memorable touch to a successful workshop.

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Top Ten Signs You Are a Texas Statistician

Amstat News continues its entertaining offering by ASA Executive Director Ron Wasserstein, who delivers a special Top 10—one that aired during a recent edition of *Practical Significance*. He says, "I had the wonderful opportunity in late March to attend the Conference of Texas Statisticians, where they invited me to be the emcee for their awards dinner. In honor of the occasion, I shared my list of top ten signs you are a Texas statistician, so here we go …"

Wasserstein

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

10

You carry your laptop in a custom-made saddlebag

09

You refer to outliers as "all hat, no data"

08

You don't just write code; you write y'all-gorithms

07

Your discrete "CDFS" are "two-step" functions

06

You don't say it is about to storm; you say it is "fixin' to be significant 'round here"

05

Your Markov chains may go into various states, but they never mess with Texas

04

You can data-wrangle on horseback

03

You don't say the model isn't converging; you say, "Houston, we have a problem"

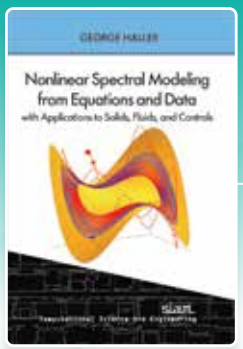
02

You actually brag about how wide your confidence intervals are

#01

You don't just reject the null hypothesis; you tell it to get out of town before sundown.

New books from SIAM

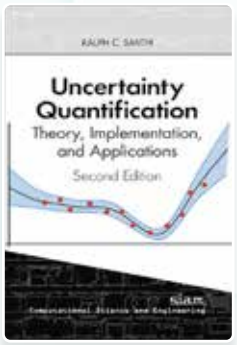


Nonlinear Spectral Model Reduction for Equations and Data
with Applications to Solids, Fluids, and Controls

George Haller

This concise text presents an introduction to the emerging area of reducing complex nonlinear differential equations or time-resolved data sets to spectral submanifolds (SSMs). SSMs are ubiquitous low-dimensional attracting invariant manifolds that can be constructed systematically, building on the spectral properties of the linear part of a nonlinear system. SSM-based model reduction has a solid mathematical foundation and hence is guaranteed to deliver accurate and predictive reduced-order models under a precise set of assumptions. This book introduces the foundations of SSM theory to the novice reader; reviews recent extensions of classic SSM results for the advanced reader; and illustrates the power of SSM reduction on a large collection of equation- and data-driven applications in fluid mechanics, solid mechanics, and control.

2025 • xii + 151 pages • Hardcover • 9781611978346 • List $62.00 • SIAM Member $43.40 • CS34

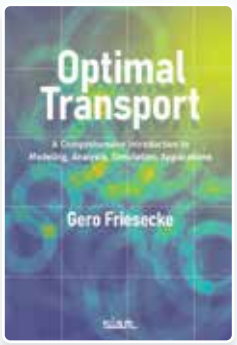


Uncertainty Quantification
Theory, Implementation, and Applications, Second Edition

Ralph C. Smith

Uncertainty quantification serves a fundamental role when establishing the predictive capabilities of simulation models. This book provides a comprehensive and unified treatment of the mathematical, statistical, and computational theory and methods employed to quantify uncertainties associated with models from a wide range of applications.

2024 • xxiv + 546 pages • Hardcover • 9781611977837 • List $89.00 • SIAM Member $62.30 • CS30

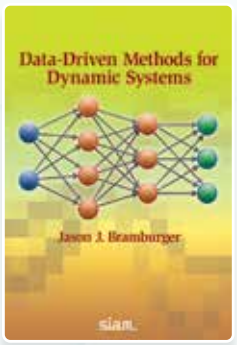


Optimal Transport
A Comprehensive Introduction to Modeling, Analysis, Simulation, Applications

Gero Friesecke

Optimal transport problems have been found to arise in many different fields of mathematics, science, and engineering—from fluid dynamics to many-electron physics to artificial intelligence—and in the last three decades interest in the subject has exploded. This accessible book begins with an elementary and self-contained chapter on optimal transport on finite state spaces that does not require measure theory or functional analysis. It builds up mathematical theory rigorously and from scratch, aided by intuitive arguments, informal discussion, and carefully selected applications. It is the first book to cover modern topics such as Wasserstein GANs and multimarginal problems and includes a discussion of numerical methods and basic MATLAB code for simulating optimal transport problems directly via linear programming or more efficiently via the Sinkhorn algorithm. Additionally, it provides classroom-tested exercises in every chapter.

2024 • xii + 333 pages • Softcover • 9781611978087 • List $79.00 • SIAM Member $55.30 • OT199

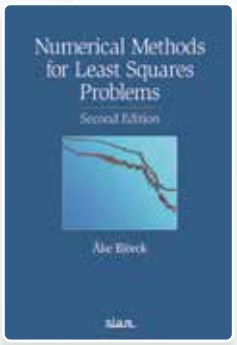


Data-Driven Methods for Dynamic Systems

Jason J. Bramburger

As experimental data sets have grown and computational power has increased, new tools have been developed that have the power to model new systems and fundamentally alter how current systems are analyzed. This book brings together modern computational tools to provide an accurate understanding of dynamic data. The techniques build on pencil-and-paper mathematical techniques that go back decades and sometimes even centuries. The result is an introduction to state-of-the-art methods that complement, rather than replace, traditional analysis of time-dependent systems. Data-Driven Methods for Dynamic Systems provides readers with methods not found in other texts as well as novel ones developed just for this book; an example-driven presentation that provides background material and descriptions of methods without getting bogged down in technicalities; and much more.

2024 • x + 169 pages • Softcover • 9781611978155 • List $64.00 • SIAM Member $44.80 • OT201



Numerical Methods for Least Squares Problems
Second Edition

Åke Björck

The first edition was the leading reference on the topic for many years. The updated second edition stands out compared to other books on this subject because it provides an in-depth and up-to-date treatment of direct and iterative methods for solving different types of least squares problems and for computing the singular value decomposition. It also is unique because it covers generalized, constrained, and nonlinear least squares problems as well as partial least squares and regularization methods for discrete ill-posed problems. The bibliography of over 1,100 historical and recent references provides a comprehensive survey of past and present research in the field.

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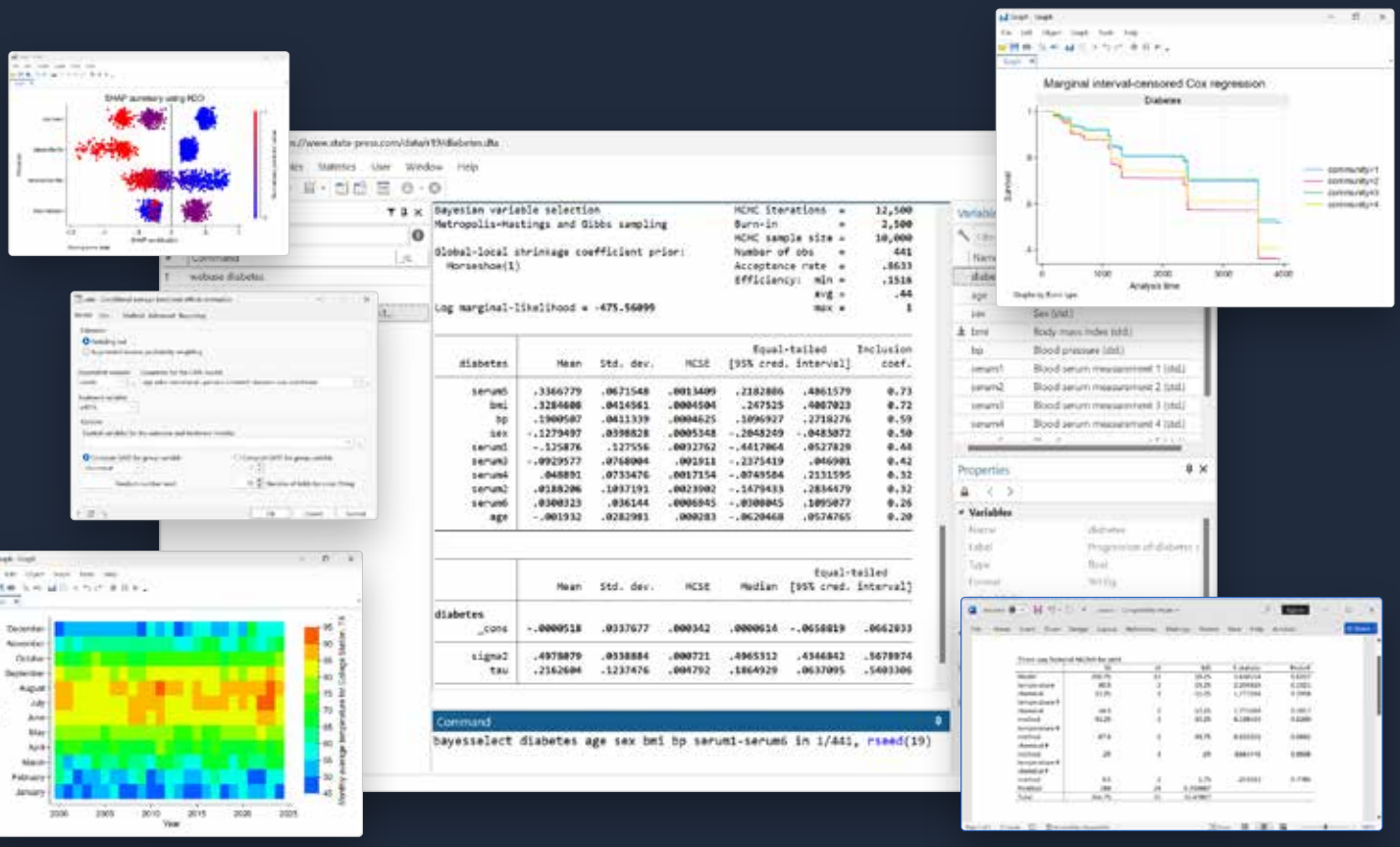

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