February 2026 • Issue #584

AMSTATNEWS

The Membership Magazine of the American Statistical Association • *https://magazine.amstat.org*

CELEBRATING BLACK HISTORY MONTH

JSM 2026

BOSTON, MA • AUGUST 1–6 • COMMUNITIES IN ACTION: ADVANCING SOCIETY

MAKE YOUR MARK ON THE PROGRAM

Bring your best ideas to the largest statistical event in North America—develop your session topic, invite dynamic speakers to take part, and send your online proposal today!

PARTICIPATE

April 2, 2026
Meeting and Event Request Submission Deadline

April 15, 2026
Late-Breaking Session Proposal Deadline

May 31, 2026
Draft Manuscript Deadline

ww2.amstat.org/meetings/JSM/2026/submissions

ATTEND

May 1 (11:00 am ET)
Registration and Housing Open

June 2
Early Registration Deadline

June 3 – 30
Regular Registration

July 1 – August 6
Late Registration

July 2
Housing Deadline

Joint Statistical Meetings

BOSTON, MA • AUGUST 1–6

ww2.amstat.org/meetings/JSM2026

AMSTATNEWS

FEBRUARY 2026 • ISSUE #584

Executive Director
Ron Wasserstein: *ron@amstat.org*

Associate Executive Director
Donna LaLonde: *donnal@amstat.org*

Director of Science Policy
Steve Pierson: *pierson@amstat.org*

Director of Finance and Administration
Derek Curtis II: *derek@amstat.org*

Managing Editor
Megan Murphy: *megan@amstat.org*

Communications Strategist
Val Nirala: *val@amstat.org*

Advertising Manager
Christina Bonner: *cbonner@amstat.org*

Production Coordinators/Graphic Designers
Olivia Brown: *olivia@amstat.org*
Megan Ruyle: *meg@amstat.org*

Contributing Staff Members
Kim Gilliam

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

Amstat News (ISSN 0163-9617) is published eight times a year, February, March, April, June, August, September, November, and December, by the American Statistical Association, 732 North Washington Street, Alexandria, VA 22314-1943 USA. Business and Editorial Offices: 732 North Washington Street, Alexandria, VA 22314-1943. Accounting and Circulation Offices: 732 North Washington Street, Alexandria, VA 22314-1943. Call (888) 231-3473 to subscribe. **Periodicals postage is paid** at Alexandria, VA. POSTMASTER: Send address changes to *Amstat News*, 732 North Washington Street, Alexandria, VA 22314-1943 USA. Send Canadian address changes to APC, PO Box 503, RPO West Beaver Creek, Rich Hill, ON L4B 4R6. *Amstat News* is the member publication of the ASA. For annual membership rates, see *www.amstat.org/join* or contact ASA Member Services at (888) 231-3473.

American Statistical Association
732 North Washington Street
Alexandria, VA 22314–1943 USA
(703) 684–1221
ASA GENERAL: *asainfo@amstat.org*
ADDRESS CHANGES: *addresschange@amstat.org*
AMSTAT EDITORIAL: *amstat@amstat.org*
ADVERTISING: *advertise@amstat.org*
WEBSITE: *https://magazine.amstat.org*

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*.

Statistical Learning and Data Science is launching in July of 2026. Serving the international community of statisticians and data scientists, *SLADS* is a peer-reviewed quarterly journal sponsored by the Chinese Academy of Sciences. Each issue will cover a wide variety of topics in statistics, machine learning, and data science. Contributions that introduce new data sets or present large-scale empirical studies are welcome. Find out more by visiting *https://slads.scichina.com*.

Have you watched the latest **Telling Our Stories** video featuring Albert Lee? Lee, a partner at Summit Consulting, talks about econometrics and explains what he does and how his work informs public policy. View the latest video in the series at *https://tinyurl.com/ye2an6d4*.

The 2026 Annual Symposium on Risks and Opportunities of AI in Pharmaceutical Medicine will take place October 13–14 at the University of California at Berkeley. It is jointly sponsored by the American Statistical Association, Amgen, Genentech, Northeastern University, Novo Nordisk, Pfizer, and the University of California at Berkeley. Visit the website for details: *https://tinyurl.com/2h2exc5d*.

departments

member news

ASA NYC Chapter Members Celebrate

90 Years

Page 39

Connect with us on LinkedIn
www.linkedin.com/company/american-statistical-association---asa

Join the ASA Community
https://community.amstat.org

Like us on Facebook
www.facebook.com/AmstatNews

Follow us on Bluesky
https://bsky.app/profile/amstatnewsbskysocial

Follow us on Instagram
www.instagram.com/AmstatNews

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

Visit *Amstat News* online

Black History Month: Honoring the Past and Present

Jeri Mulrow

February is Black History Month, so I want to acknowledge contributions of Black statisticians and data scientists to our profession. The stories I highlight in this column are to remind us that scientific progress depends on opening doors, not closing them.

The stories I highlight in this column are to remind us that scientific progress depends on opening doors, not closing them.

The path to becoming a statistician in the early and mid-twentieth century required extraordinary determination for anyone. Annie Mae Turner Taylor Randall was born on January 22, 1925, in Greenwood, South Carolina, and grew up in a segregated Washington, DC. A straight-A student, she graduated from Dunbar High School, then took undergraduate and graduate classes at American University.

Annie began her government career at the US War Production Board during WWII. She went on to be the first professional African American to work in several government agencies. As a mathematical statistician in the Theoretical Statistics and Mathematics Branch of the National Institutes of Mental Health, she used one of the first mainframe computers and was responsible for the calculations behind the book *Human Aging*.

In 2020, the ASA Biometrics Section established the Annie T. Randall Innovator Award to recognize trailblazers who are continuing her legacy of excellence. Annie's biography on the Mathematically Gifted and Black website ends with this advice: "Always do your best and help others."

Annie T. Randall illustrates the past. Current ASA Board members DuBois Bowman (vice president), Brian Millen (president-elect), and Sharina Person (Council of Sections representative) are examples of the present. They bring not only their statistical expertise but also their commitment to advancing the profession for everyone. These board members are shaping how the ASA responds to emerging challenges, how we support early-career members, and how we ensure statistical practice serves diverse communities and addresses pressing societal needs. Through their service, they model what it means to contribute at the highest levels while remaining committed to opening doors for others.

In an interview published in the *ASA Biopharmaceutical Report,* Brian was asked to look back on his career and share his hope for his legacy. He responded, "For me, the true mark of success is whether I've left things better than I found them. Whether it's through launching new initiatives, shaping culture, or mentoring the next generation, my goal has always been to create lasting, meaningful change. If, years from now, people look back and say, 'Because of his efforts, more people had opportunities to grow, succeed, and contribute to the field,' then I'll be satisfied." Brian's commitment to service is a reminder that Black History Month is not only about the past we honor, but what we continue to create every day.

DuBois is a renowned expert in the statistical analysis of brain imaging data. This excellence is matched by his commitment to passing knowledge forward. In an interview published in *The New York Times* after his appointment as the president of Morehouse College, he said he wanted to create an environment "where students can come from many backgrounds and perspectives, a space for

open inquiry to wrestle and challenge and debate ideas, with an openness to grow and evolve." As we celebrate Black History Month, his commitment to education challenges us to redouble our efforts to invest in the next generation.

In A Statistician's Life feature in *Amstat News*, Sharina said, "I take it as a personal challenge to change the mind of that person who 'hates statistics.' The ability to elevate the perception of statistics while doing something meaningful that I love always brings me joy." Black History Month reminds us that progress in any profession has come through individuals who don't just excel in their field but also serve it. Sharina's dedication to the practice and profession of statistics shows us that strengthening the profession means strengthening the community.

We are always facing challenges, but I am filled with optimism about the practice and profession of statistics because of the work of our emerging leaders, who are pushing methodological boundaries while also reshaping how our profession thinks about mentorship and belonging.

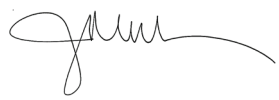
Lorin Crawford, who will deliver the 2026 Dionne Price Public Lecture and is a past recipient of the Annie T. Randall Innovator award, is the perfect future-focused story. Lorin works on developing interpretable machine learning and AI algorithms to study how genetic effects and gene-by-environmental interactions influence complex traits and disease progression. Our talented young statisticians and data scientists are asking bold questions, bringing fresh perspectives, and refusing to accept that things must stay as they've always been. We have every reason to believe the future of statistics is bright and the story isn't finished.

Students are the ones who will add new chapters to the rich legacy we celebrate during Black History Month and beyond. Each generation brings fresh outlooks, new questions, and innovations we can't yet imagine, building on the foundation laid by those who came before. When we invest in students, we are making a commitment to our vision of a world that relies on data and statistical thinking to drive discovery and inform decisions. If you know a student doing exceptional work, I encourage you to take the time to nominate them for an award. Your nomination could be the encouragement they need to keep pushing boundaries in our profession.

Our talented young statisticians and data scientists are asking bold questions, bringing fresh perspectives, and refusing to accept that things must stay as they've always been [. ...] Students are the ones who will add new chapters to the rich legacy we celebrate during Black History Month and beyond.

The students we teach and mentor today will become the leaders, educators, and innovators who ensure the values of service, excellence, and community we honor this month continue to shape our profession for years to come.

As we move forward, we carry both the responsibility to honor the history of contributions and the commitment to ensure the next generation of statistical leaders reflects the breadth of talent and perspective our field needs. The story of statistics is incomplete without these voices.



Member Showcase: Devon Lin

The ASA is built on the strength of its members—their work, expertise, and dedication to the field. This month, we're highlighting Devon Lin, who shares with us details of her career and future goals.

Devon Lin is a professor in the department of mathematics and statistics at Queen's University. She earned her PhD from Simon Fraser University and joined Queen's University in 2008. She is the chair of the ASA's Section on Physical and Engineering Sciences. She also serves on the Provincial Advisory Committee of the Canadian Statistical Sciences Institute and the Spring Research Conference Management Committee. She is associate editor of the *Canadian Journal of Statistics, Journal on Uncertainty Quantification*, and *Journal of Statistical Planning and Inference*.

What is your current role or area of expertise in statistics and/or data science?

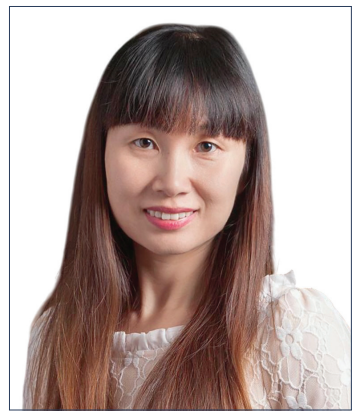
I specialize in uncertainty quantification and experimental design, two interconnected fields that address how to measure uncertainty and how to collect data to reduce it. UQ is inherently interdisciplinary, blending statistics, computational mathematics, and computer science to assess and communicate risks in complex systems, thereby supporting better-informed decisions and policies. My work applies these concepts through the lens of experimental design and surrogate modeling, developing methodologies to plan data collection so the resulting information is optimally valuable for achieving specific research or operational goals.

What has been one of your biggest professional achievements?

One of my most significant professional achievements is the mentorship and training of students. Guiding undergraduate, MSc, and PhD students through their academic development—from framing research questions to publishing their work—has been incredibly rewarding. Witnessing their growth and seeing them succeed in their careers brings me pride and joy.

What career advice do you live by, and who gave it to you?

The career advice I live by is "Stay hungry. Stay foolish," a quote from Steve Jobs's 2005 Stanford commencement address. While the phrasing is catchy, the principle is profound: to maintain a relentless curiosity and the courage to pursue new ideas or ask naïve questions. In academia, this translates to continuously seeking new methodologies outside my comfort zone. It's a daily reminder that learning is not a phase but the essence of a lifelong journey.



Devon Lin

What experiences and past roles have led you to where you are today?

I am fortunate to have had incredible mentors in different stages of my education and career. In my elementary school, middle school, and high school, my teachers inspired me to pursue a university degree, which opened doors for me to graduate studies and, ultimately, a

career in academia. My PhD advisers played a pivotal role in my career. They saw potential in my early research that I had not yet recognized in myself, and they responded not only with guidance but with active mentorship. Their belief in me was more than encouraging.

What is the biggest career challenge you've had to overcome?

Early in my career, I was not sure whether I belonged to academics and questioned my ability to contribute consistently. My confidence was built by the incredible support system I found in my 'academic family.' As an academic grandchild of Professor C. F. Jeff Wu, I've had the opportunity to collaborate with and learn from a wonderful network of academic siblings, cousins, and mentors. This sense of community has been instrumental, giving me the assurance and belonging to confidently pursue this career path.

As chair of the Section on Physical and Engineering Sciences, would you recommend others get involved in an ASA section? Why? What have you learned from the experience?

Absolutely. This year, our section has been very active. We've hosted several SPES webinars, successfully relaunched the Marquardt Memorial Industrial Speakers Program—bringing industry leaders to campus to share insights with faculty and students—and collaborated with the Quality & Productivity Section on both the JSM student paper competition and section reception. These activities provide excellent opportunities for JSM members to engage and offer valuable platforms for learning, professional networking, and contributing to our statistical community.

Through active participation, engagement, and leadership in community activities, I have cultivated a strong sense of belonging to our community and found a meaningful way to contribute to society.

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

I am currently teaching a first-year data science course. It has been a rewarding yet challenging experience. The primary challenge lies in maintaining student engagement and fostering genuine interest in foundational topics. It is indeed rewarding to hear from students who tell me they decided to choose a statistics major after taking the course. ■

Call for Papers: Statistics for Astronomical Imaging Data

The ASA journal *Statistics and Data Science in Imaging* is planning a special issue on statistics for astronomical imaging data to showcase recent advances in astrostatistical methodologies and computation for processing astronomical imaging data.

The editors welcome papers about statistical and machine learning methods for problems such as image segmentation, source deblending, deconvolution, morphological classification, uncertainty quantification, and detection and characterization of sources in 2D images and image cubes that combine spatial image data with data in spectral or temporal dimensions.

The deadline to submit manuscript is December 31. For details and submission instructions, visit *https://tinyurl.com/57dh9u5j.*

ASA GivesBack's Year in Review

Caroline Birdrow and Jaime Joseph, ASA GivesBack Leadership Team

ASA GivesBack is a group of ASA members whose goal is to give back to their local and statistical communities.

Last year's programming kicked off with the group's annual Thank a Mentor project, in which ASA members share their stories about people who made a difference in their statistical journeys. The highlighted mentors were Haviland Wright (nominated by Alison Turner), Jesse Canchola (nominated by Russell Yang), and Yehenew Kifle (nominated by Mouhamed Oloude).

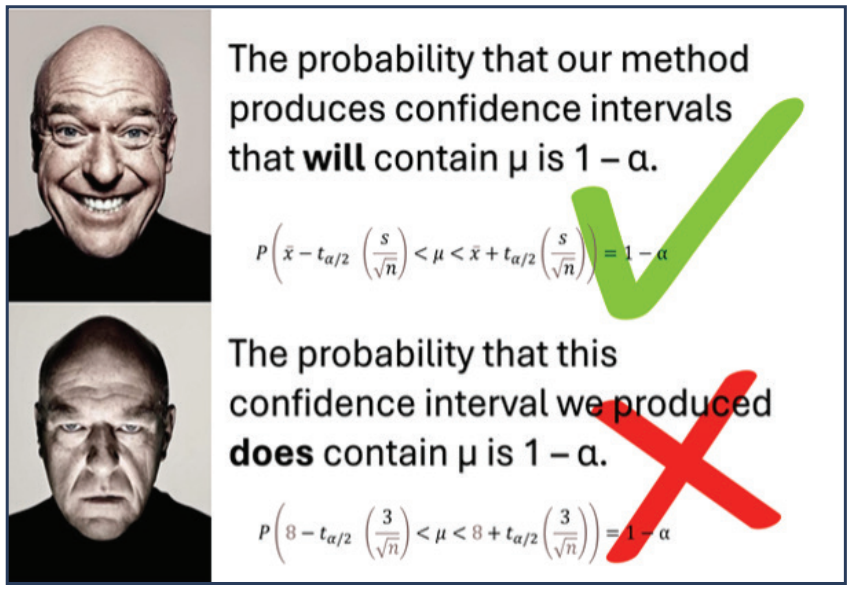
Next came the JSM Impact Project, a community service initiative for JSM attendees to join during the conference. The group partnered with Monroe Carell Jr. Children's Hospital at Vanderbilt in Nashville, Tennessee, to collect toiletries and comfort items that help bring normalcy to patients and their families. Several ASA members ordered items from their Amazon wish list and/or made monetary donations.

In May, ASA GivesBack members launched the ASA Virtual Science Fair to engage K–12 students during the summer. The overarching goals were to encourage students to ask questions, learn experiment design, and gain experience with collecting and organizing data. They also practiced drawing conclusions and sharpened their presentation skills.

To end the year, the group held a haiku/meme contest to get the creative juices of the community flowing! The winning submissions are the following:

Meme Category

- **1st Place:** *Mark Ramos*



Haiku Category

Graduate Level

- **1st Place:** *Alyssa Columbus*

  I'm mostly certain
  this joke will land just
  about -
  there. Give or take some.

Professional Level

- **1st Place:** *Larry Lesser*

  Statisticians now
  must be ready to deal with
  data that's censored.

- **Honorable Mention:** *Charlie Smith*

  Nighttime thunderstorms
  Pets and children crowd
  my bed
  Equal sample sizes

- **3rd Place:** *Benjamin Leinwand*

  my model has fit
  the data extremely well
  a little too well ■

Welcome TO OUR NEWEST MEMBERS

Mohammad Abiad
Deborah Adeyemi
Ozan Adiguzel
Dhananjay Agrawal
Nadim Akter
Ariel M. Aloe
Bilaal Mohamed Amin
Mannan Anand
Derek Arnold
Erika Atoma
Raji Balasubramanian
Geoffrey S. Baser
Arkajyoti Bhattacharjee
Joanna Biernacka
Nick W. Birk
Jane Border
Rajdeep Brahma
Jelena Brkljacic
Zac Buchalski
Prosper Busagala
Brandon Butcher
Sedat Çapar
Jane E. Cerise
Ih Chang
Jamie Pearl Chea
Chyong-Mei Chen
Yifan Chen
Yongkai Chen
Yuxuan Chen
Zhengxi Chen
Yuejie Chi
Jongwoo Choi
Song Hoa Choi
Megan Cornman
Maxwell A. Curl
Safaa Dabagh
Kevin Dai
Edward Daisey
Appala Venkata Subhadra Raju Dantuluri
Jennifer Davis
Alex Rosales de Leon
Joseph Egbemhenghe
Gayara Fernando
Javier E. Flores
Warren C. Ford
Courtney Francois
Lynn Gao
Anvit Garg
Ryad Ghanam
Japbir Gill
Ousainou Gomez
Pratim Guha Niyogi
Emily Hadley
Amran Haji Omar
Robert A. Hall
Jessica Hamblin
Qiyang Han
Anjum Harris
Md. Mehadi Hasan
Arnab Hazra
Michelle Hsu-Dandekar
Guido W. Imbens
Dipeshkumar Jaiswal
Bei Jiang
Xuejun Jiang
Gianna Jimenez
Olamilekan Jimoh
Ndey Isatou Jobe
Eric Johnson
Niladri Kal
Ronald Kamusiime
Tasso Kaper
Masato Keeley
Dohyeong Ki
Kyeongbin Kim
Raphael Kim
Yuna Kim
Marina Komaroff
Patrick Kramer
Sai Shrinidi Krishnan
Arpan Kumar
Sevinc Kurnaz
Dayong Lee
Jaylen M. Lee
Jeonghwan Lee
Chenze Li
Jinhong Li
Yiming Li
Danyu Lin
Xueying Liu
Nan Lu
Zeyu Lu
Yuanyuan Luan
Victor Michael Malinowski
Bianca Manago
Nicholas Mandarano
Michael S. Marion
Jorge Mateu
Xuran Meng
Athanasios Micheas
Carly Middleton
Benigno Millares
Grace Montepiedra
Rachid Joel Guidion Muleia
Jongmin Mun
Michael Mutsa
Daniel Thomas Naylor
Brian Patrick Neal
Henry L. Nelson
David Newton
Chinedu Jude Nzekwe
Kwaku Opoku-Ameyaw
Adebayo Owoade
Kiran Kumar Paidipati
Mauli Pant
Raj Kumar Parihar
Valentin Parvu
Robert Pennell
Sonia Petrone
Laura Porter
Iresha Premarathna
Yang Qu
Veronika Rockova
Sam Rosen
Bidhayak Roy
Daniel Schwartz
Nigel Scott
Trenton Sedlacek
Jeremy Seeman
Yubo Shao
Yulin Shao
Peiyilin Shen
Yuxin Shi
Adam Slivinsky
Scott E. Smith
Chaudhry Saad Sohail
Mehrdad Soltani
Kaitlyn Stadtmueller
James B. Stallard
Ethan Straub
Matthew Strong
Pengling Sun
Myranda Emily Swartzwelter
James Sweeney
Roddy Michael Taing
Haochen Tan
Bahaeddine Taoufik
Zihan Teng
Kasuni Tennakoon

Debjoy Thakur
Kailu Tian
Stephen Matthew Tivenan
Shruthi Reddy Vudem
Shiyu Wan
Tianxing Wang
Weihao Wang
Yushu Wang
Zhen Wang
Safi Wazaz
Audrey Williams
Wayne Wisemandle
Di Wu
Guodong Wu
Hanqing Wu
Huiming Xie
Wenqian Xing
Juan Xu
Shuntuo Xu
Jonathan Yabes
Lili Yang
Yuanliang Yang
Zikun Yang
Rrita Zejnullahi
Haochen Zhang
Jackie Zhang
Rui Zhang
Ruiyan Zhang
Xiaozhu Zhang
Zixuan Zhao ■

New Member Spotlight:

Leah Qin

This month, we spotlight PhD student at Washington University in St. Louis Leah (Yizhuo) Qin, who answered the following questions so we could get to know her better:

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

I was drawn to statistics by how powerful models and algorithms can be in making sense of complex data and solving real-world problems. I enjoy the combination of rigorous theory and practical impact.

What do you consider your dream job?

My dream job is one in which I can continuously learn about a wide variety of problems and collaborate with others to apply statistical and data science methods to address them.

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

I hope my training in statistics and data science will enable me to make a meaningful difference for others, whether by informing decisions, improving systems, or meeting important needs in society.

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

I have broad interests and would love to learn more about the different sections and interest groups across the ASA. I am very open to connecting with statisticians from a variety of areas.

What is your favorite hobby?

I love watching movies.

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

I am currently learning bartending and enjoy experimenting with new drink recipes in my free time.

If you are a new member interested in being featured, email ASA Communications Manager Megan Murphy at megan@amstat.org.

University of Nebraska Regents Vote to Eliminate Statistics Department

Susan Vanderplas worked as an associate professor in the statistics department at the University of Nebraska-Lincoln, researching the perception of statistical charts and graphs and applying computer vision and machine learning techniques to image data.

Chris Bilder is a statistics professor and American Statistical Association Fellow. He has won numerous awards, including best paper in biometrics by the International Biometric Society and the ASA's Outstanding Statistical Application Award in 2014 and 2018.

On December 5, the University of Nebraska Board of Regents voted 7–1 to eliminate its department of statistics, resulting in likely all faculty losing their positions. The board of regents also voted to eliminate three other departments on the same day. To learn more about this change, we reached out to Chris Bilder and Susan Vanderplas, who are statistics professors at the University of Nebraska-Lincoln.

Can you describe the role and structure of the statistics department prior to the proposed closure?

The department of statistics had 13.4 faculty positions. Its academic home at the University of Nebraska-Lincoln was in the Institute of Agriculture and Natural Resources, which is equivalent to a college of agriculture at other universities. Many of the faculty performed consulting and collaborative research with other IANR faculty as part of their appointments. Faculty also supported the research for the whole university, along with having their own statistical research programs. Since the founding of the department in 2003, we have offered master's and doctoral programs in statistics. We started our first undergraduate major in statistics and data analytics in 2022. This was followed with a data science major (joint with the department of mathematics and the school of computing) in 2023.

What metrics were used to evaluate the department? You mentioned on LinkedIn that the decision was based on what you described as "flawed data." What were the main issues you saw with that analysis?

The university administrators' analysis was based on a set of research and instructional metrics. The research metrics were relatively standard assessment measures—like number of papers, awards, citations, and books for each faculty member. Results were then aggregated by department. However, the data was incomplete. One of us, Chris, identified four of 14 publications, four of seven awards, 911 of 1,264 citations, and one of one book were omitted for him over the specified time frames. Administrators deemed many types of research contributions as not important enough to include in the data. Contributions noteworthy to mention for statisticians include co-investigator or consultant for grants, R packages, and Shiny apps.

The instructional metrics included measures like number of student credit hours, first-year retention, and graduation rate. This last metric was particularly problematic for our department. The actual calculation involved a ratio of the number of graduations in the 2023–2024 academic year to the total number of majors across all degree programs. This metric was then converted to a z-score. No attempt was made to account for expected time-to-degree completion (e.g., BS, MS, and PhD programs each take different lengths of time). Our undergraduate majors did not contribute to the numerator (number of graduates) of the ratio but *did* contribute to the denominator (number of majors). The reason was simple: Our four-year undergraduate programs had not been around for four years. The end result was a numerator much smaller than the denominator and a z-score value of -1.38. While this would still not be an unusual value for statisticians, administrators created their own definition of an outlier:

> Outlier for this purpose defined as +/-1 z-score – may not align with a statistical definition

As a result, our department was flagged as having an "instructional outlier."

Administrators used z-scores with all research and instructional metrics to compare departments. Any

z-score that was negative ended up being flagged as a sign of "under performing" for a department. In total, eight of our 16 metrics were negative, with all but the graduation rate metric within ±1 of 0. While these metrics are not necessarily independent of each other, their values would still generally not be alarming to statisticians. Much, much more can be said about these z-scores, but it would fill up the entire issue of *Amstat News.* We intend to write a paper detailing these problems.

The metrics failed to include some of the university's most prestigious awards. Erin Blankenship, statistics faculty member since 2003, has an Outstanding Teaching and Instructional Creativity Award. This award is given to the best teacher across the 50,000-student University of Nebraska system, but it was not important enough to be included in any metric.

We were informed about our proposed elimination on September 11. On September 16, we began communicating with administrators about problems we were finding with the data and metrics. We soon learned they either did not believe us or did not want to believe us. This led us to request multiple times in October that they obtain an external, independent evaluation by statisticians, but they would not respond to our requests directly. We even went as far as organizing a campus-wide seminar in November to discuss the metrics, where both the administrators and statistics faculty would participate. The administrators declined to participate. We presented the seminar, ourselves, with approximately 200 members of the UNL community in attendance. A recording of this seminar and associated materials are available at SaveOurStats.com. This webpage also provides recordings of an additional presentation given by us and our testimony at three University of Nebraska Board of Regents meetings.

What surprised you most about this process?

After being notified about the proposed elimination, administrators we previously had good working relationships with became adversarial to us. We were no longer on the same team. A common phrase we heard from administrators was "based on the advice of counsel." They provided little help to find alternatives to elimination. We were told to find $1.75M ourselves, which was the amount administrators calculated would be saved per year by the department's elimination (the dollar amount is disputed by us). We actually did find this money through savings and revenue generation, but these solutions were largely ignored. The department of educational administration, another eliminated department, proposed a plan to save all departments, but this was ignored, as well.

UNL has eliminated departments and laid off tenured/tenure-track faculty in the past. Its bylaws and related procedures attempt to make the process fair and transparent. However, for this round of eliminations, administrators did not conduct the process in good faith and did not abide by the spirit of the rules and principles of shared governance. For example, administrators are required to provide information used in the process to the affected departments *before* public release of the proposal, ensuring time for corrections and explanations and an opportunity to jointly explore alternatives. The department of statistics was notified less than 24 hours prior to the elimination plan becoming public. And this notification was without the data needed to provide any meaningful feedback. Given the faulty data and analyses eventually uncovered by the faculty, a good-faith adherence to the rules could have dramatically changed the course of events.

How is the situation affecting current students? What risks or disruptions are they facing?

Our students are devastated. This is particularly difficult for new students, especially international students who just arrived here in August. Students who recently learned they passed the PhD qualifying exam went from an extreme high to the lowest of lows in just a few months. When our first cohort of undergraduate majors graduates this academic year, it will be difficult to celebrate because it may be our last.

While administrators provide assurances that all current students will be able to finish their degree programs, there are still no "teach-out plans" available for these students. Because faculty are looking for new positions, few statistics faculty likely will be

available to teach them after May. Administrators have openly said they may need to rely on emeriti or nonstatistics faculty to teach statistics courses. We doubt this will work.

What has this meant, professionally, for you?

Faculty are heartbroken by this news, especially because a misuse of statistics played a critical role. Below are our individual responses:

Chris: I am a native Nebraskan. I came back to Nebraska in 2003 when the department was formed so I could help reverse the brain drain that has afflicted our state for generations. I was very proud to be a Husker. Now, what has happened is like being exiled from my family.

Susan: I came to UNL from Iowa State and was encouraged to go up for tenure early. I was promoted in August of 2024 and got an NSF [National Science Foundation] CAREER award in August of 2025. I was planning to spend the rest of my career at UNL, and then UNL told me I wouldn't have a career here. I fell in love with this place—a department that took a big tent view of statistics but was small enough that we didn't have competing factions. The administration was supportive and helpful. The undergraduate program, that I helped build, placed a lot of value on statistical computing, collaboration, and communication. Eliminating the department and our programs felt like the administration was strangling a baby in the cradle. I developed five new courses for this major, with no course releases or summer pay, and all that work has been thrown away.

What gives you hope about the future of statistics, despite this challenge?

Statistics and data science are growing everywhere else. Programs that help students develop both statistical sophistication and the ability to communicate results are more important than they ever have been.

What can individual ASA members and departments do right now to support affected faculty and students? Who can they contact if they have jobs, research collaborations, or mentoring support?

We are incredibly grateful to everyone who participated in a letter-writing campaign that overwhelmed our administrators with the sheer volume of support and the eloquence of the arguments. Supporters submitted more than 450 comments through an online form and another 100 pages of direct emails. These comments and emails buoyed our spirits in an otherwise devastatingly dark period.

Statistics and data science are growing everywhere else. Programs that help students develop both statistical sophistication and the ability to communicate results are more important than they ever have been.

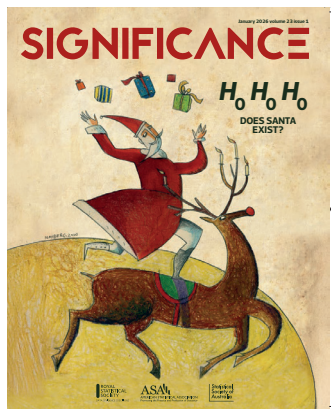
For those who can provide a new home for our students, please contact our undergraduate (Erin Blankenship, *erin.blankenship@unl.edu*) and graduate (Souparno Ghosh, *sghosh5@unl.edu*) committee chairs. Our faculty are also on the job market. If their CV comes your way, please give it a look. These faculty are both excellent teachers and researchers.

If your institution is looking for a ready-made statistics undergraduate program in a box, please reach out—we can provide not only our program but also qualified faculty who have designed and taught it for a few years. This program was very highly lauded in our last academic program review performed by statistics faculty from other Big 10 universities.

Faculty are ready to take their research elsewhere. In addition to Susan's NSF CAREER grant, faculty are principal investigators for other grants, including NSF DMS [Department of Mathematical Sciences] and NIH R01 [National Institutes of Health Research Projects]. Our department, as a whole, is at the 76th percentile for overall research productivity when compared to other statistics programs, according to the company that provided administrators with research metrics. This overall research productivity level puts us right in the middle of other Big 10 Statistics programs.

With UNL's stated goal of rejoining the Association of American Universities, eliminating a highly ranked department makes no sense. ■

SIGNIFICANCE HIGHLIGHTS



From Santa Claus to Taylor Swift: What the Data Reveals

Two global superstars were vying to be on the cover of this issue. On the one hand: Santa Claus. On the other: Taylor Swift. Both household names with vast legions of fans. Both with articles in this very magazine investigating the statistics behind their globetrotting feats. Both had their advocates—among them, our usually punctilious copyeditor, whose request spelled the word "please" with 14 Ls and 18 Es. Such was the strength of feeling.

But in the end, the data showed there was an obvious winner. Taylor might have visited 51 cities on her 149-date Eras Tour from March 2023 to December 2024, but Santa makes an estimated 386 million stops in one 24-hour marathon (although further research is needed) every single year. Her fanbase is in the hundreds of millions; his is believed to be in the billions. Also, he only gets one chance to make a big media splash annually, unlike the ubiquitous pop legend who graces covers and front pages all year round. Santa, it had to be you.

Taylor certainly wins when it comes to costume changes, though. She wore more than 60 unique outfits throughout her record-breaking tour. What's more, fans theorize they were correlated with song choices.

Other Highlights

- LLM "metalinguistic" capabilities
- An overview of the latest AI talking point
- Mass shootings
- Exploring the impact of mental health and gun ownership on the frequency of deadly events
- Medicine labeling
- How efficacy descriptions could be improved

Access the digital version of *Significance* through the membership portal. Print issues will be mailed to subscribers soon.

Significance is also online at *www.significancemagazine.com.* ■

This Month in Statistics History: Black History Month

FEBRUARY Time Series

Penny S. Reynolds

This month, we highlight the contributions of seven pioneering Black and African American statisticians. James McCune Smith, W. E. B. DuBois, and Charles Bernard Bell Jr. also appear in our Black History Month cover story.

James McCune Smith

April 18, 1813 – November 17, 1865

Born into slavery in 1813, James McCune Smith was the first African American to earn a university degree in medicine. He was a founding member of the New York Statistical Society and joined the American Geographical and Statistical Society in 1853, two years after it was founded. A leading abolitionist, public intellectual, and accomplished linguist, he pioneered the use of statistical evidence to assess efficacy of medical treatments and counter racist arguments of Black inferiority.

Denied admission to American universities because of his race, Smith trained at the University of Glasgow, graduating with a bachelor's degree in 1835, a master's in 1836, and a medical degree in 1837. That same year, he published two articles in the *London Medical Gazette* using statistics to demonstrate that silver nitrate treatments for sexually transmitted disease in women were ineffective and harmful.

William Edward Burghardt (W. E. B.) Du Bois

February 23, 1868 – August 27, 1963

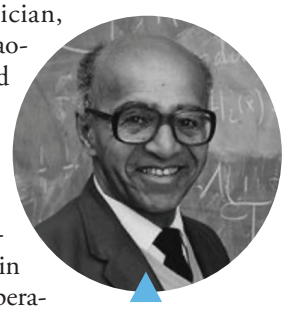
In 1895, W. E. B. Du Bois was the first African American to earn a doctorate from Harvard. He was also one of the founders of the National Association for the Advancement of Colored People in 1909.

Du Bois pioneered the development of sociology as a scientific discipline, integrating data from field surveys and published government census data with sophisticated statistical methods and infographics. His book *The Philadelphia Negro* was the first statistically based sociological study in the United States and the first to explicitly describe the use of mixed-methods research in sociology. Du Bois employed the use of original infographics to summarize complex statistical data and make the case for social reform.

David Blackwell

April 24, 1919 – July 8, 2010

In 1962, David Blackwell was elected the first African American ASA Fellow and, in 1978, was the first African American to be elected vice president of the ASA.



BLACKWELL

A mathematical statistician, he is best known for the Rao-Blackwell theorem and earned the John von Neumann Theory Prize in 1979 for an outstanding series of papers on Markovian decision processes. This work was foundational for later developments in dynamic programming and operations and management science.

Blackwell's many honors include election to the National Academy of Sciences in 1965, election as an honorary fellow of the Royal Statistical Society in 1976, and 12 honorary doctorates. In 2012, he was posthumously awarded the National Medal of Science by President Barack Obama.

Read more about David Blackwell at *https://tinyurl.com/445ks3jj*.

Ann (Annie) Mae Turner Randall

January 22, 1925 – August 15, 2021

RANDALL

Ann (Annie) Randall was a mathematical statistician at the National Institutes of Mental Health and a trailblazer for African American women in federal science agencies.

A mathematical standout during high school, she took undergraduate and graduate classes at American University, one of the first universities in Washington, DC, to admit Black students.

During World War II, she was among the first African American "government girls" to work at the War Production Board.

After the war, Randall joined the National Institute of Mental Health Biometrics Branch, Section of Theoretical Statistics and Mathematics, and was mentored by ASA Fellow Donald F. Morrison. She became

a mathematical statistician and early adopter of mainframe computing.

In 2020, the American Statistical Association established the Annie T. Randall Innovator Award to recognize the contributions of early-career statistics innovators. Read more about Randall at *https://tinyurl.com/25ebu6t2*.

Charles Bernard Bell Jr.

August 20, 1928 – October 26, 2010

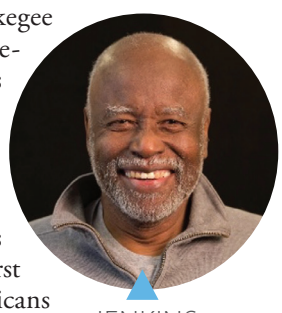
Charles (Chuck) Bernard Bell Jr. was elected an American Statistical Association Fellow in 1970 and was an honored fellow of the Institute of Mathematical Statistics. He graduated with a doctorate in mathematical statistics from the University of Notre Dame in 1953, at the age of 19.

His research addressed nonparametric distributions, distribution-free tests of independence and randomness, and stochastic processes.

Bell was also notable for active and wide-ranging service to the statistics profession, and he was an active member of the ASA. He was chair of the ASA Committee on Minorities in Statistics and program director for the National Science Foundation program in applied mathematics and statistics. A Fulbright Scholar, his international outreach efforts included the launch of professional development programs for local teachers and mathematicians in Kenya, India, and Nigeria.

William (Bill) Carter Jenkins

July 26, 1945 – February 17, 2019


JENKINS

Best known as the "Tuskegee whistle-blower," epidemiologist Bill Jenkins was among the first to expose the Tuskegee Syphilis Study.

A 1967 Morehouse College mathematics graduate, he was in the first cohort of African Americans recruited into the United States Public Health Service. From there, he learned of a PHS study observing the course of untreated syphilis in poor Black men. For more than 40 years, PHS had intentionally denied these men effective treatment while misleading them into believing they were receiving care.

Jenkins earned his master's degrees in biostatistics and public health and a PhD in epidemiology from Harvard. He also completed postdoctoral research there. At the US Centers for Disease Control and Prevention, he served as chief of the Research and Evaluation Statistics Section and managed the Minority Health Activities Program. He also served on the Tuskegee Syphilis Study Legacy Committee that pressured President Bill Clinton to issue a federal apology in 1996.

Jenkins was active in the American Statistical Association and served as chair of the Epidemiology Section. He was also a member of the American Public Health Association, founding the APHA Society for the Analysis of African American Public Health Issues. For his contributions to public health, he received the 2003 APHA Hildrus Augustus Poindexter Award. For more information, visit *https://tinyurl.com/mum26tt7*.

Dionne Lynnette Price

August 29, 1971 – February 22, 2024


PRICE

Dionne Price was elected an American Statistical Association Fellow in 2018. She was an ASA vice president in 2019 and, in 2022, became the first African American elected as ASA president.

Price earned her bachelor's degree in mathematics from Norfolk State University in 1993 and a master's in biostatistics from The University of North Carolina at Chapel Hill—where she was a UNC Packard Scholar—in 1995. In 2000, she was the first African American to earn a PhD in biostatistics from Emory University.

Her statistical work concentrated on design and analysis of clinical trials, especially adaptive designs, Bayesian methods, model-based analysis, survival analysis, and patient-centered outcomes. During the COVID-19 pandemic, Price was instrumental in expediting the fast-tracking of potential COVID-related therapies and medical products, while guaranteeing their safety and efficacy.

She was chair of the ASA Biopharmaceutical Section and served on the regional advisory board and regional committee of the Eastern North American Region of the International Biometric Society. She was the Black History Month Mathematically Gifted and Black honoree in 2021, and in 2024, posthumously received the Founders Award for exceptional service to the ASA.

For more information about Price, visit *https://tinyurl.com/2tnypjhd*. ■

MORE ONLINE
Download the article references at *https://tinyurl.com/vxvfvaut* for further information.

For an in-depth look at Bell, Du Bois, and Smith, see our feature story on Black History Month in this issue.

Q&A with ASA Founder Rob Gould

Rob Gould

Rob Gould has spent his career encouraging, influencing, and inspiring statistics students and educators. A teaching professor at the University of California, Los Angeles, Gould has shaped how statistics is taught from high school to college and within the larger international statistics and data science communities.

As founder of the American Statistical Association DataFest, Gould created an experience for students that made data come alive. Each spring, DataFest unites more than 4,000 undergraduates—majoring in statistics, engineering, computer science, and related fields—to tackle complex data sets ranging from the play of a national sports team to online textbook use.

Reflecting on his impact, Johanna Hardin, professor of mathematics and statistics at Pomona University, wrote, "Not only has he [Rob] continued to vociferously state that statisticians all *do* data science, but through DataFest every year, he gets undergraduate students excited about working with large data sets to answering complicated and interesting problems."

Gould is also a leader in the statistics education community. He is director of the Data Science Education Center at UCLA, which developed the Introduction to Data Science curriculum, the country's first year-long high school data science course. He has served as chair of the ASA/American Mathematical Association of Two-Year Colleges and ASA/National Council of Teachers of Mathematics joint committees. Additionally, Gould has served as chair of the ASA Statistics Education Section and president of the ASA Southern California Chapter.

Gould has won many awards, including the CAUSE Lifetime Achievement Award and the ASA Waller award. This year, he was elected an ASA Founder. We wanted to know what drives his passion for education and what else he is enthusiastic about.

Background

Where did you grow up?

I grew up in Whittier, California, a suburb of Los Angeles. At the time, it was a slightly more distant suburb than it is now.

What or who influenced your passion for statistics education?

My mother was a K–6 educator, so I grew up around teachers. My professors at Harvey Mudd College inspired me in many ways, particularly Stavros Busenberg, Courtney Coleman, and Robert Borrelli. I wanted to be like them someday. In graduate school, I developed a passion for statistics through my thesis adviser, Ian Abramson, and realized I also had a strong passion for teaching.

Career Journey

You earned a BS in applied math from Harvey Mudd College and, in your words, "after a brief stint in the 'real world,' a PhD in math (statistics) from UC San Diego." Can you explain what that brief stint was? What made you return to school to earn your PhD?

The stint was boring—documenting code in a classified defense-related project. After a year, I was quite eager for a change.

What do you love most about teaching?

Easy. The students.

What do you find most challenging about teaching?

I think all of us in education face the problem of dwindling resources. We're fortunate at UCLA to have our student enrollment in statistics increase, but that increase is not met with additional resources. It is a real challenge to continue to provide the same high-quality education with fewer resources.

How has statistics education changed since you started teaching?

In every possible way and for the better. If you read the statistics education literature of the 1980s and '90s, there's a common theme that statistics is the "most hated" class in the college curriculum. Thanks, I believe, to the "real data" movement and a trend of focusing on applications in the early stages, the relevance, importance, and joy of statistics is communicated to more students than ever before.

But other trends have also been impactful. Most obviously, the ubiquity of computers and the internet, the availability of (very) inexpensive statistical software, and the accessibility of real and complex data. (Although, very sadly, that is one positive trend that is in retreat.) The advent of the AP Statistics exam made a tremendous change; suddenly, students were choosing to take statistics before they came to college and didn't see it as a course they were forced to take.

Under the name of "data science," more and more states and more districts are adding statistics-oriented courses to their curricula. The course I helped design, Introduction to Data Science, has been taken by more than 80,000 high school students. But these are trends. I fear that, still, too many students learn statistics as a rote set of formulas to be plugged into and not a means for learning more about the world around them.

Can you share a story or lesson you learned that changed the way you teach?

In 2003, I was invited by Joan Garfield to join the Statistical Reasoning, Thinking, and Literacy conference, held in Lincoln, Nebraska. SRTL differs from other conferences I've attended, in that researchers—most of whom used qualitative methodologies—shared work-in-progress, rather than presenting final results. These presentations included rich and long discussions, which were illuminating for me. I had fallen into a habit of blaming the students for their mistakes and privately bemoaning their lack of preparation. Working with these researchers, however, completely changed my way of thinking. For them, a student's error was illuminating and revealed a problem with their curriculum or pedagogy or gave insight into students' thought processes. Even more, SRTL showed me that these problems could be addressed and improved. Since then, when students don't perform as I expect, I look first at my own practice and reflect on what I can change and never blame the students.

What skills do you think are most important to have as a statistics professor?

Based on my admittedly biased perspective, statisticians make good educators. The skills needed to be a good statistician—communicate to lay audiences, approach problems from different angles, understand concepts from a variety of perspectives—make for good teachers. That said, another important lesson I've learned is that teaching skills can be improved. There might be "natural" teachers, but we can all improve and reach exceptional standards.

Rob Gould receives his Founders Award from 2025 ASA President Ji-Hyun Lee.

Improving Statistics Education

You have worked with numerous educators, from high school teachers to professors at two-year colleges, to help guide their statistics curricula. In 2005, you worked with a team of writers to produce the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report*. What's the most surprising thing you've learned from working with educators at different levels?

I'm not sure "surprised" is the right word. When I think about these interactions, the word that comes to mind is "inspired." I met so many extraordinarily creative and talented high school teachers and two-year college professors. And they were all the more inspiring because statistics (usually) wasn't their original field of study, yet they had a deep-seated passion for teaching statistics. Plus, high school teachers really know how to *teach*, and so I learned a lot from sitting alongside some while grading AP exams or designing professional development. Through them, I learned a lot about how much statistics has to offer students.

I hate to name names because I know I'll unintentionally leave out some of my favorites, but I drew great inspiration and learned much from Gretchen Davis, Chris Olsen, Darren Starnes, Dan Teague, Josh Tabor, Suyen Machado, Monica Casillas, Kaycie Maddox, and my textbook co-authors Colleen Ryan and Rebecca Wong.

How do you approach making statistics accessible to students with different backgrounds and goals?

I think the great thing about teaching statistics is almost every discipline and almost anything a

MORE ONLINE
Learn more about the work and influence Rob Gould has had on both students and educators in the CAUSE Lifetime Achievement Award Tribute Booklet found at *https://tinyurl.com/2nfjc3cu*.

student might be interested in produces data. And those data can be used to engage students in class. If a student is from a non-STEM background, I want statistics to be their favorite STEM class.

In 2011, you organized the first DataFest. Was there a specific experience that made you realize students need to work with data outside the classroom? How has DataFest changed the way you teach?

One of the motivators behind DataFest (and there were several) was it was hard to get students to take ownership of projects I assigned them in class. There was an assumption that I had assigned the same project before (sometimes I had) or that there was one way I was expecting them to solve it, and their goal was to figure out what I wanted to see, not what they wanted to do. My colleagues expressed the same feelings. Another motivator was it was challenging to get real data into the classroom.

And yet another motivator was a paper I read by Deb Nolan about the importance of giving statistics students difficult problems. I had just heard an NPR story about hackathons that were creating apps to help rescue workers in international disasters and thought that since students do these projects at the last minute anyway, why not set aside some time where they could work intensely on a hard problem. They would work in teams, but in the same room, so that as we uncovered problems with the data—or gaps in their knowledge—we could address them as a group. And in that way, collectively, we could help the group that donated the data solve their problems.

We're careful to tell data donors not to expect water-tight solutions from a 48-hour competition. And sometimes, data donors already have their own teams looking closely at data. But even then, the data donors report that while the results might not have been a surprise to them, the methods the students employ are often illuminating and lead to new approaches for the donors' data scientists.

My colleagues and I learned much from watching students during DataFest. We learned that topics we thought we had covered thoroughly had not, in fact, taken root in our students. Because of this, we've made many changes to our curricula over the years. The biggest that comes to mind is greater emphasis, in almost all classes in the core, on data preparation.

If you could change something about how statistics is taught, what would it be and why?

I've been lucky to see real and positive changes in the way statistics is taught. My wish for the future is that statistics be taken more seriously in K–12. I wish we could teach statistics systematically and comprehensively throughout the pre-college years. And I hope this teaching is done in such a way that students can use statistics in their own lives to follow their own passions.

What advice would you give someone considering a career as a statistics professor?

Find people with whom you can read and discuss the research literature on teaching statistics, such as those that appear in places such as *JSDSE* [*Journal of Statistics and Data Science Education*] and *SERJ* [*Statistics Education Research Journal*]

Beyond Statistics

You play the cello. How long have you played? Who is your favorite composer, and what is your favorite song to play?

I played *at* the cello for a number of years. But once I passed my quals in grad school, I started to take lessons regularly and practice more frequently. I'm still very much an amateur; I feel lucky if I can get two hours a week of practice in. But I love it. I have a trio I play with monthly: piano; flute; and cello. We just played Mendelssohn's "Piano Trio #2" for a small audience of friends and family. Bach is my favorite composer, and I wish I could play any of his suites for solo cello in such a way that other people enjoyed listening as much as I enjoy playing.

You have traveled extensively for your career. Where would you like to go that you haven't been, or where would you like to go again and why?

I love traveling and visiting, particularly with statistics colleagues. I love that when I travel for academic conferences, I feel a bit more involved in the local life than I do as a tourist. Seeing new places with old friends and colleagues and visiting a new city with colleagues who are local is a wonderful way to experience a new city or country.

Is there a skill you have always wanted to learn or a topic you've wanted to learn about? Do you have plans to pursue it?

Many. But I'd love to dive deeper into the history of statistics and wish I had some skill and training in the methodology of historians so I could explore this further. Plus, I think it would lead to more great travel opportunities. ■

Statisticians' Future in the Pharmaceutical Industry:
From Data Analysts to Strategic Partners

Yannis Jemiai

Not long ago, the role of a pharmaceutical statistician was straightforward. They were the technical experts who made sure clinical trials ran smoothly. They handled randomization, calculated power and sample size, and delivered the analyses regulators needed. The big decisions about derisking development and advancing assets? Those stayed with the clinical and commercial teams.

But that old paradigm is quickly becoming outdated. Today, statisticians are stepping more into the spotlight, helping shape actual decisions that drive drug development forward—from early discovery through regulatory hurdles and beyond.

Pharma statisticians are no longer just number crunchers. Early-stage discovery. Clinical regulatory and reimbursement hurdles. Post-market surveillance. It's all within their purview now. They help decide what data to collect, how trials should be designed to answer team questions, and what those questions should be. And right now, many statisticians are guiding their companies on what responsible AI integration really looks like in drug development.

This shift isn't happening in a vacuum. It reflects broader industry changes that are creating both complex challenges and unprecedented opportunities to reshape the industry landscape. Statisticians' unique combination of mathematical rigor and clinical literacy is critical to navigating an explosion of real-world data, integration of AI and machine learning, evolving regulatory expectations, and the push toward personalized medicine.

The Expanding Statistical Universe in Drug Development

New Frontiers Beyond Clinical Trials

The scope of pharmaceutical statistics keeps growing. While randomized controlled trials for regulatory approvals remain a top priority, statisticians now work across a much broader spectrum of evidence generation. For example, real-world evidence has emerged as a critical component in drug development. It requires statisticians to conceive and apply new analytical methodologies for observational data that can complement or augment traditional clinical trial findings.

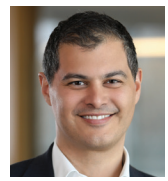
Digital biomarkers are another area prime for innovation. Wearables, apps, and remote monitoring tools generate continuous streams of patient data, and statisticians instinctively understand how to extract meaningful insights from these novel sources. This work requires not only statistical innovation, but also close collaboration with clinicians to ensure digital endpoints truly capture patient experiences and outcomes.

Clinical operations used to focus on boosting site activation and trial enrollment, and thorough monitoring practices remain critical for ensuring site performance and data quality. But lately, companies have begun asking statisticians to integrate operational data sources and apply advanced modeling and optimization methods to detect signals and accurately forecast performance.

From Protocol to Strategy

Perhaps the biggest change? Statisticians are now at the table for strategic decision-making throughout the drug development life cycle. In early phases, they're designing experiments to maximize insights from limited resources. In program and portfolio management, they're developing probabilistic models that help executives decide which compounds to move forward.

This strategic role extends to regulatory interactions, too. Statisticians are now key liaisons between their companies and regulatory agencies. Their deep expertise in both statistical principles and regulatory expectations make them essential for navigating the complexities of drug approvals. They no longer just follow the rules. They actively shape the new ones.



Yannis Jemiai's research has been published in numerous statistical journals. He earned his PhD in biostatistics from Harvard University, an MPH from Columbia University, and a BA in molecular and cellular biology from Harvard.

The AI Revolution: Collaboration, Not Competition

Statisticians as AI Validators

The rise of AI has added further fodder to the debate about the future roles of statisticians. Instead of being replaced by the machines, they're becoming essential partners for ensuring AI systems are reliable, interpretable, and compliant with regulators. This function is critical for building frameworks that work across varied applications.

In a field where algorithmic bias or model failure is measured in patient lives, this validation role is significant. Statisticians uniquely understand both the math of machine learning and its clinical contexts. They help bridge the gap between data innovation and regulatory acceptance.

Enhanced Analytical Capabilities

AI also supercharges the analytical capabilities of statisticians. Machine learning is great at spotting patterns in complex data sets that traditional methods miss. Statisticians are rapidly integrating these new tools into their workflows at a pace that's only quickening.

Predictive modeling has become particularly powerful when AI and traditional statistics are combined. Statisticians are crafting hybrid approaches that harness AI pattern recognition, while maintaining the interpretability and uncertainty quantification required by regulators and clinicians.

Navigating the Data Deluge

Big Data Challenges

Pharma is swimming in data. Genomics studies routinely generate terabytes of information. Patient records contain detailed longitudinal histories. And wearable devices provide continuous monitoring. The result is a goldmine of data richness, but also a headache.

Classic methods designed for smaller, more structured data sets often struggle with this scale and complexity. In response, statisticians are now developing new techniques for handling high-dimensional data, while maintaining statistical rigor. They're also grappling with issues of data quality, integration, and privacy that are fundamental for responsible use.

Methodological Innovation

The amplified complexity of modern pharmaceutical data is sparking real creativity. Causal inference methods are now a go-to for observational or mixed data, helping to separate correlation from causation when randomization isn't feasible.

Federated learning lets us analyze data across institutions without moving sensitive info—huge for rare diseases with scattered patients.

Meanwhile, adaptive trial design is almost routine now, allowing researchers to adjust their approach as data accumulates, while preserving validity. Advanced twists like master protocols, Bayesian borrowing, and ML-driven designs are cutting time, cost, and potentially improving outcomes.

Regulatory Evolution and Statistical Leadership

Shaping New Guidelines

Regulatory agencies worldwide are fast modernizing their approaches to drug evaluation. The FDA, for example, has embraced innovative trial designs, such as Bayesian designs, master protocols, and platform trials. Much of the recent guidance on real-world evidence and digital health tech came with heavy statistician input.

This regulatory evolution generates a feedback loop. Statisticians prove new methods work in submissions, then they help set broader standards that lift the whole industry—especially in the efficiency and effectiveness of drug development.

Strategic Regulatory Partnerships

The relationship between pharmaceutical statisticians and regulatory agencies is shifting from adversarial to collaborative. Early chats and ongoing dialogue are becoming the norm, and statisticians play a key role in these interactions, helping align company strategies with regulatory expectations.

This collaborative approach is particularly important in areas such as personalized medicine and AI-driven drug development, where regulatory precedents are still forming. Statisticians who can effectively communicate both the potential benefits and limitations of new approaches are becoming invaluable assets to their organizations.

The Personalized Medicine Challenge

Statistical Complexities

The shift toward personalized medicine is exciting, but tricky. Broad-population trials are increasingly inadequate for evaluating treatments that may only work in specific patient subgroups. In response, statisticians are working on new approaches to biomarker-driven trial designs that can efficiently identify patients most likely to benefit from a treatment.

The evolution of subgroup identification and validation also has far-reaching implications. With the ability to stratify patients based on genetic, molecular, or other biomarkers, the number of potential subgroups can quickly become overwhelming. In response, statisticians are developing sophisticated methods to identify meaningful subgroups, while controlling for multiple testing and ensuring reproducible findings.

Precision Health Care Implementation

Translating personalized medicine from research to bedside adds another layer of challenges. Population-level predictions may not translate directly to individual patient care, so statisticians are bridging this gap with frameworks for real clinical utility.

Equity matters too. Statisticians are working to ensure the benefits of precision health care are available to all patient populations, not just those historically well represented in clinical trials. This work requires careful attention to issues of generalizability and external validity.

Skills for the Future Statistician

Technical Evolution

The required technical skill set for statisticians is rapidly evolving. Programming proficiency, once optional, is now essential. Statisticians must be comfortable working with multiple programming languages and platforms, from traditional statistical software such as SAS and R to more general-purpose tools such as Python and SQL. Cloud computing environments are also becoming common as statistical algorithms require greater computational capacity.

Meanwhile, data visualization and communication skills have become just as important as analytical capabilities. Statisticians must now be able to translate complex statistical findings into clear, actionable insights for diverse audiences. This requires a deep understanding of how different stakeholders consume and use statistical information.

Strategic Competencies

Regulatory knowledge remains crucial, but business savvy is rising in importance. Statisticians must understand economics, market access, and competition. They must also stay ahead of regulatory trends and participate in shaping future guidelines. This requires close collaboration with regulatory agencies, professional organizations, and industry working groups.

Cross-functional collaboration skills are a must. Modern drug development is inherently multidisciplinary, requiring close cooperation between statisticians, clinicians, regulatory experts, data scientists, and commercial teams. Statisticians who can effectively communicate across these domains and contribute to decision-making will be the most successful.

Conclusion: The Statistical Advantage

Value Proposition

The future of pharmaceutical statistics looks bright—if continuous adaptation and growth become the norm. The unique value proposition of today's successful pharmaceutical statistician is their ability to provide both technical expertise and strategic insight. Statisticians who thrive in this new environment will become bridges between innovation and implementation.

While data scientists can build sophisticated models and clinicians may understand patient needs, statisticians offer a unique combination of mathematical rigor, regulatory knowledge, and clinical understanding that is essential for successful drug development.

Looking Ahead

Demand will only grow for these types of statisticians as pharma gets more complex, regulators demand stronger evidence, and tech advances. Those who embrace this evolution and develop these skills will become central figures in some of the most important work of modern medicine. ■

CELEBRATING BLACK HISTORY MONTH

In celebration of Black History Month, we recognize these individuals for their contributions to the statistics field and the lasting impact of their work on research, education, and society.

BRITTNEY BAILEY

Current Role: Assistant Professor of Statistics, Amherst College

Education: BA, Mathematics, Messiah College; PhD, Biostatistics, The Ohio State University

My family is from New York, and that's where I was born, but I lived in Virginia Beach through elementary school and then a small town in rural Ohio for middle and high school.

I became interested in statistics through mentorship and exposure to opportunities. I always enjoyed it, but with little guidance or exposure to other possibilities, I assumed I should become either a high school math teacher or an accountant.

I credit Sam Wilcock at Messiah College for nurturing my initial interest in statistics. I majored in math and was required to take two statistics courses as part of the major, both of which happened to be with him. After doing well in both courses, he encouraged me to continue taking courses in statistics and complete the statistics minor. With each course I took, I became more interested in the field.

By my junior year, I no longer wanted to be a high school math teacher, but I still didn't know what careers in math or statistics looked like beyond teaching. I was introduced to biostatistical research through the Summer Research Opportunities Program in Computational Biology and Biostatistics at the University of Wisconsin-Madison.

I was inspired by the faculty and graduate students in the program and impressed by the impact of statistical research on scientific understanding and clinical practice in health care. That experience motivated me to apply for graduate school, and a year later, I began a PhD program in statistics at The Ohio State University.

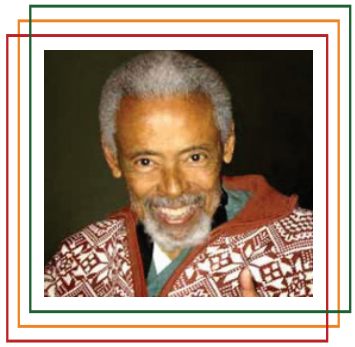
After taking a couple courses in biostatistics and attending a local conference on health disparities that discussed the results of several cluster-randomized trials, I transitioned to the PhD program in biostatistics and decided to research statistical methods for these types of trials.

Today, I work at Amherst College and continue to research statistical methods for cluster-randomized trials and other correlated data with applications to mental health and aging research.

No part of this journey has been easy, but some of my proudest professional moments include hearing "Dr. Bailey" for the first time, walking across the stage for graduation with my family and chosen family cheering me on in the audience, entering my office at Amherst for the first time, getting the acceptance email on my first publication, and now being able to support other students on their journeys—especially through my roles in the STEM Incubator Program at Amherst and the ASA Committee on Minorities in Statistics.

CHARLES BERNARD BELL JR.

(AUGUST 20, 1928 – OCTOBER 26, 2010)



Charles "Chuck" Bernard Bell Jr. was a pioneering statistician elected as an ASA Fellow in 1970 and as an Institute of Mathematical Statistics Honored Fellow. Born in New Orleans in 1928 into a family with a long tradition of teaching, he earned his doctorate in mathematical statistics from the University of Notre Dame in 1953 at the age of 19, after completing earlier degrees at Xavier University.

Bell's research spanned nonparametric distributions, distribution-free tests of independence and randomness, and stochastic processes. With David Blackwell and Leo Breiman, he coauthored a foundational paper establishing the optimality of order statistics for nonparametric estimation and statistical inference. Over his career, he published nearly 40 research papers and collaborated with leading figures in probability and statistics.

As a linguist, Bell could speak, read, and write in seven languages, including Swahili, and he used these skills to build international scholarly connections. His academic career included faculty appointments at institutions such as San Diego State University—where he was one of the first African American professors—as well as Case Western Reserve University, the University of Michigan, Tulane University, and the University of Washington.

Bell was deeply committed to service and mentorship within the statistical profession. An active member of the ASA, he served as chair of the ASA Committee on Minorities in Statistics and as a program director for the National Science Foundation's applied mathematics and statistics program. A Fulbright Scholar, he led international outreach efforts that established professional development programs for teachers and mathematicians in Kenya, India, and Nigeria, leaving a legacy of global engagement and inclusion in statistics.

WILLIAM EDWARD BURGHARDT (W. E. B.) DU BOIS

(FEBRUARY 23, 1868 – AUGUST 27, 1963)

William Edward Burghardt (W. E. B.) Du Bois was the first African American to earn a doctorate from Harvard in 1895 and one of the founders of the National Association for the Advancement of Colored People in 1909. He pioneered the development of sociology as a scientific discipline, integrating data from field surveys, and published government census data with sophisticated statistical methods and infographics.

His book *The Philadelphia Negro* (1899) was the first statistically based sociological study in the United States and the first to explicitly describe the use of mixed-methods research in sociology. Du Bois believed rigorous empirical evidence could—and should—be used to challenge injustice, and he linked statistical patterns to lived experience through concepts such as "double consciousness."

Du Bois employed aesthetically compelling and original infographics to summarize complex statistical data and argue for social reform. He and his team of Black students contributed 32 charts, 500 photographs, and numerous maps and plans to the 1900 Paris World's Fair, showcasing the progress made by African Americans since emancipation and correcting racially biased stereotypes.

In his honor, the inaugural W. E. B. Du Bois Award in Population Science was established in 2025 by the Population Association of America.

ANNY-CLAUDE JOSEPH

Current Role: Assistant Professor, Department of Mathematics and Statistics, Wellesley College

Education: PhD, Biostatistics, Virginia Commonwealth University; MS, Operations Research, Southern Methodist University; BS & MS, Mathematics, Stephen F. Austin State University

Born in Guadalajara, Mexico, to Haitian parents, I spent my formative years in Trinidad and Tobago before relocating to the US in the early 2000s.

As a child, I excelled academically and initially expected to pursue a career in medicine, following in the footsteps of many others in my family. However, in my first year at college, I came to terms with the idea that I was fundamentally ill-suited to be a physician since I could not even stomach on-screen medical dramas. I decided to become an economist, but as I explored the curriculum, my math professors consistently awed me, and I declared as a math major.

I loved math and was keen to find a rewarding career, but my options were not clear. I consulted a book, *101 Careers in Mathematics*, to help me chart my course. Based on the results, I briefly explored operations research, followed by an extended period as a lecturer at several higher learning institutions.

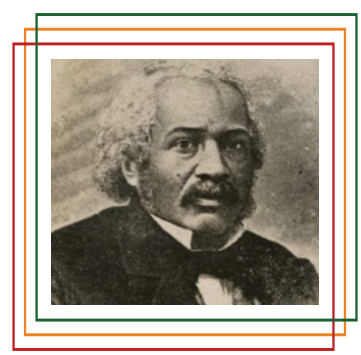
While I enjoyed being an educator, I began searching for a way to apply my quantitative skills to more meaningful, real-world challenges. I revisited the career book, focusing on ways to combine math with health. I decided to pursue doctoral training in biostatistics at Virginia Commonwealth University, where I developed a passion for statistics.

My training at VCU included teaching and applying statistics to support researchers at the hospital and medical school, with a primary focus on maternal and child health in the epidemiology department. This experience confirmed that I thrive in an academic environment and my true calling is combining statistics with public health.

Now, as a faculty member at Wellesley College, I take immense pride in mentoring the next cohort of statisticians and data scientists. I am especially excited and proud that many of my students feel inspired to pursue careers in public service.

JAMES MCCUNE SMITH

(APRIL 18, 1813 – NOVEMBER 17, 1865)



Born into slavery in 1813, James McCune Smith was the first African American to obtain a university degree in medicine and the first professionally trained Black physician to practice in the United States. After returning from Scotland, he established a successful medical practice and pharmacy in New York City, where he served patients of all races and social classes.

Smith was a founding member of the New York Statistical Society and joined the American Geographical and Statistical Society in 1853, two years after its founding.

A leading abolitionist, public intellectual, and accomplished linguist, he wrote extensively for both scholarly and popular audiences and collaborated with figures such as Frederick Douglass. Across his work, Smith pioneered the use of statistical evidence to evaluate the efficacy of medical treatments and dismantle racist claims of Black biological inferiority.

Denied admission to American universities because of his race, Smith trained at the University of Glasgow, earning a Bachelor of Arts in 1835, a master's degree in 1836, and a medical degree in 1837. That same year, he published two articles in the *London Medical Gazette,* using statistical analysis to demonstrate that silver nitrate treatments for sexually transmitted diseases in women were both ineffective and harmful—an early example of evidence-based medicine. Smith went on to use

statistical reasoning to expose other spurious medical practices, including what he called the "lay puffery" of homeopathy and the pseudoscientific study of phrenology.

Drawing on data compiled by Edward Jarvis (the third ASA president), Smith identified and corrected errors in the 1840 US Census that had been used to support pro-slavery arguments that claimed freedom was detrimental to the health and well-being of formerly enslaved people.

His analysis helped prompt congressionally mandated reforms to the 1850 census and contributed to the creation of a centralized US Census Office in Washington.

Smith credited Adolphe Quetelet and William Farr as key influences on his work, which laid early foundations for the use of social statistics to study population health and racial disparities. Through his insistence on rigor, evidence, and moral clarity, Smith demonstrated how statistics can serve as a powerful instrument for both scientific progress and social justice.

MARIA TACKETT

Current Role: Associate Professor of the Practice, Department of Statistical Science, Duke University

Education: PhD, Statistics, University of Virginia; MS, Statistics, University of Tennessee-Knoxville; BS, Mathematics, University of Tennessee-Knoxville

I grew up in the suburbs of Nashville, Tennessee, where my passion for math began at an early age. I was drawn to its underlying logic and the satisfaction of solving puzzle-like problems. I remember first learning about algebra in an elementary school enrichment program and being fascinated by the notion of using math equations to solve for unknowns. I am thankful for the encouragement from my parents and teachers during those formative years. Their support helped me cultivate not only a love for math but also confidence in my ability to excel in it.

I always enjoyed school and learning and, over time, knew I wanted to be a teacher. In high school, I did a practicum working with a professor in the department of mathematics at Vanderbilt University. I was energized by the college environment and found the multiple facets of being a professor exciting (even grading!) This experience motivated me to pursue a career in academia, and I entered college with the goal of becoming a math professor.

I majored in mathematics at the University of Tennessee-Knoxville and took my first statistics course as a requirement for the major. I was immediately drawn to statistics and the power of using data to illuminate trends and glean insights across a wide range of disciplines. I had the opportunity to continue taking statistics classes through a "4+1" program and earned a master's degree in statistics.

After working as a statistician in industry, I made my way back to academia and earned my PhD in statistics from the University of Virginia. I joined the department of statistical science at Duke University in 2018 and am now an associate professor of the practice. My work focuses on inclusive pedagogy and the factors that influence students' sense of belonging in math and statistics courses. I have also worked with nonprofit organizations to develop curricula and instructional materials for high school and college-level statistics and data science courses.

One of the proudest moments in my career was receiving the Bass Connections Leadership Award in 2024 for my work leading an interdisciplinary undergraduate research team. Mentoring students has been one of the most meaningful aspects of my career, and this award symbolizes the fulfilling work of walking alongside students as they realize their potential and accomplish their goals. I am here because others supported me along the way, and it is truly rewarding to now support students on their own academic journeys. ■

Practical Significance, Take II: Communities in Action—A Conversation with ASA President Jeri Mulrow

Interested in helping local communities by being an active presence and spokesperson for statistics and data science? On a recent episode of the *Practical Significance* podcast, cohosts Donna LaLonde and Ron Wasserstein welcomed ASA President Jeri Mulrow, who shared her thoughts about leadership, service, and the evolving role of statistics. She also called on fellow members to participate in her presidential initiative, Communities in Action.

Donna LaLonde: Tell us about your day job.

Jeri Mulrow: I am currently a vice president and sector lead at Westat. I oversee our statistics and data science, survey management and design, and our data operations groups.

We do a lot of very large data collection activities for the federal government, including things like the National Assessment of Educational Progress and the Medical Expenditure Panel Survey. We are also pushing the boundaries in data science and AI. It's a great place to work with many great people and there are many interesting, challenging problems we can work on and help solve.

Donna LaLonde: Looking at where you started to where you are now, what surprises you most about that career trajectory?

Jeri Mulrow: Wow—everything. I grew up as a little girl in Helena, Montana, and I probably never would have dreamed I would land in the Washington, DC, area, have a career in the federal government, end up being the deputy director at the Bureau of Justice Statistics, and be a vice president at an organization like Westat.

All of it has amazed me. The most amazing part to me is not just the work I've done, but the people I've met. I have met so many amazing, wonderful folks throughout my career, many through the American Statistical Association. It's my home away from home—my happy place.

Ever since I joined the organization as a graduate student, I've felt at home and very comfortable talking with people in the ASA.

My career was certainly not straight and narrow or following a single path. It was more meandering—taking opportunities, taking a few risks, working with people I liked, and working on problems that interested me. I wasn't always focused on the next promotion; I was more interested in the next interesting problem to solve and how I could get involved.

Ron Wasserstein: I want to zero in on your presidential initiative. It clearly resonates because the webinar in December had a tremendous turnout and generated a lot of interest. Please tell us about your goals for this initiative and why it's important to you.

Jeri Mulrow: I'm really excited about Communities in Action. I want to help empower members of our statistical community to engage at the local level in the communities where they live. I want to bring our statistics and data science communities together with the places we live and work.

You're right about the town hall. I had the opportunity to share some examples of what inspired me. I want to mention a few others.

I spent a majority of my career working in the federal statistical system, alongside many colleagues, producing data used for national decision-making. That was very rewarding and challenging work because we could see how the data drove better decisions and improved understanding of what was happening in the areas being measured.

The challenge was often how to collect the data, where to get it, and how to get cleaner data. Many federal data sources come from local levels: states; counties; cities; parishes; and neighborhoods. That made me think: How could local communities also use data for decision-making? Some do, but I believe more could. And those who do could sometimes use it better.

Who can help better than statisticians and data scientists? We are good at working with data and solving problems. We bring the statistical problem-solving process to our work across many aspects of life.

I also thought about the ASA's mission and vision: promoting the practice and profession of statistics and a world that relies on data and statistical thinking to drive discovery and inform decisions. Communities in Action brings those to life for me.

It's a grassroots call to action at the local level—to be an active presence in our communities and spokespeople for statistics and data science. The goal is to equip members with practical tips and tools to bring their expertise to real community challenges. We will share resources, best practices, and concrete strategies to help people engage—whether they have one hour a year, a month, or a week. I hope everyone sees a way to be involved, even in small ways. I'm really excited about it. Thanks for asking.

Ron Wasserstein: We are all very excited about Communities in Action. Moving to another topic, how do you think AI technologies will change what statisticians and data scientists do?

Jeri Mulrow: I always love that question. I say, "Let me grab my Magic 8 Ball and shake it!" AI technologies are here to stay. People are excited about them, and they can be very useful when used appropriately. Our community brings the foundations AI is built upon. AI can make tasks more efficient and timelier—coding, cleaning data, analyzing data, writing scripts, and creating visualizations.

But AI must be guided and validated. That's what statisticians and data scientists do well—think about the underlying problems, appropriateness of data, and quality of data sources.

More data isn't necessarily more information; it depends on what the data can say. We will continue to play a critical role in that. I hope AI gives us more time to think through statistical problem-solving, identify needed data sources, and assess data quality, while AI helps with the weeds. We will still be very busy and must be involved in these processes.

Donna LaLonde: Expand a little on what makes you hopeful for the future of the profession.

Jeri Mulrow: Our profession is always evolving. We constantly think about how to improve what we do and push boundaries. That makes me hopeful.

Over time, we've shown we're adaptable, creative, and persistent. If you've attended JSM [Joint Statistical Meetings] and looked at featured lectures and award recipients, you can see how people continue to push forward.

It can feel daunting when things change, but we're well suited to adapt day to day.

Ron Wasserstein: Some young folks reading may hope to be ASA president or leaders in other organizations. What advice do you have for young folks who may hope to be ASA president or leaders in our organization?

Jeri Mulrow: I don't know if ASA president was on my list, but I'm honored to be here. My goal has always been to be involved and present in organizations, using my skills to improve things and helping others move forward. Being involved in the ASA has helped me throughout my career—from chapter participation as a graduate student, to Washington Statistical Society committees, to vice president, and now to president.

My advice? Get involved. Be present. Be helpful. When there's a call for volunteers and you have time, answer it—and really do the work. What has amazed me is that the more I give, the more I get back—often in unexpected ways. ■

Interested in sharing your ideas for Communities in Action?

Use this QR code.

JSDSE HIGHLIGHTS

Generative AI's Role, Gaps in Ecosystem for Data Science Education in Newest Issue

Juana Sanchez, *Journal of Statistics and Data Science Education* Editor-in-Chief

The first issue of Volume 34 of the *Journal of Statistics and Data Science Education* features semi-structured, task-based interviews with undergraduate students that suggest Rtutor.AI can facilitate statistical thinking, but more so if the students have strong conceptual understanding. Details can be found in "Students' Statistical Thinking When Using Generative AI: A Descriptive Case Study," by Vimal Rao, Amos Jeng, Julianna Drew, Bhuvan Kala, and Sanjana Gongati.

This issue also features an evaluation of data science education curricula and programs that originate from statistically trained teachers' efforts. Zofia Bednarowska-Michaiel and Emma Uprichard, in their article titled "Bridging Interdisciplinary Data Science Education Challenges in the Classroom," observed that throughout Europe and the United States, the teaching and learning of data science has centered on learning statistics and computational skills—neglecting multidisciplinarity, skills differences, decolonization, and ethics in some programs.

Readers will also find activities and assessment methods that can be directly integrated into a course. For those teaching in the life sciences disciplines, the article by Chad Curtis on engaging undergraduate students in collaborative and active learning via historical role playing is an example.

Another example with direct actionable insights is the article by Sarah Samorodnitsky, Maria Masotti, Rachel Zilinskas, Aidan Neher, Ann Gliddon, Luke Gliddon, Marta Shore, Anne Eaton, Ann Brearley, and Laura Le, titled "Leveraging a Community Partnership to Provide Statistical Consulting Experience to Graduate Student Trainees." Volunteer graduate students act as consultants for high school students (the clients), who are preparing a research proposal for their senior capstone project.

Marla L. Sole had community college social science students taking their first statistics course criticize an article, which led to engaging in a full investigative statistical project to find out about students' sleeping habits. The article is titled "An Investigation Designed to Teach Statistical Thinking in the Midst of the COVID-19 Pandemic: Are Teens Living Like Vampires?"

Pre-K–12 is the time to plant the seeds of statistics and data science education. The education of the teachers is discussed in an article by Randall E. Groth, and the feasibility of teaching time series plots interpretation to middle school students is featured in an article by Jan Mokros, Jacob Sagrans, and Pendred Noyce. For those looking for alternative ways to assess students, Michael J. von Maltitz describes how portfolios of learning and interviews of understanding complement each other and foster student engagement and active learning in a mathematical statistics course.

The editorial note asks readers to pay attention to the context in which the papers originated and the methods used to provide evidence, as those help determine for whom a paper has most value.

Feedback about the journal and questions are welcome and can be emailed to Juana Sanchez at *jsanchez@stat.ucla.edu*. ■

STATS4GOOD

Data Rescue Goes Local

Data rescue is one of the greatest Data for Good success stories of the past year. A team of volunteers and individuals have come together to save data across the US federal system from deletion and dilution, as well as lessen the diminishment of staff, resources, and impact. This outstanding effort continues today with an emphasis on state and local data affected by federal actions. This is why rescuing local data has been named a Data for Good Top Challenge for 2026.

Federal data resources are used every day in myriad ways by state and local businesses and government to serve the people in their communities. Public health and safety data is needed to protect us. Environmental data is needed to protect the world around us and our future. Economic data is needed for economic growth and security.

As a data scientist working in the utility industry modeling weather damage, I have seen first hand what happens when vital data gets thinned out. It's true across the information spectrum: The greatest impacts of federal data loss are felt locally, in peoples' communities, schools, jobs, and homes.

All this makes today's challenges to data systems a call to action to preserve and protect data we use to care for others in so many ways. In recent months, these concerns have grown to extend beyond nationwide platforms and situations. Some states are making reductions in funding and staffing cuts, mirroring what we have seen at the federal level. The Southern Poverty Law Center is monitoring impacts to safety net programs due to federal cuts. All these areas need statisticians and data scientists to archive existing data and work with new partners to carry on the mission of programs that have been affected.

A particular area of concern at the state and local levels is DEI sources going dark. A good example is state programs for Historically Underutilized Businesses. North Carolina has continued its program, accurately describing it as an effort "to increase the number and type of businesses competing for state contracts, which helps government get the best value for taxpayer dollars." Other states, however, have discontinued their program and scrubbed the data. Surveys by civic organizations and public advocacy groups can help meet this need for social advocacy with Data for Good.

Local action is also needed when a reduction in federal support results in the shuttering of programs affecting a group of states. For example, federal staffing and funding cuts to the National Oceanic and Atmospheric Administration severely affected the Great Lakes Environmental Research Laboratory, raising concerns such as algae blooms and the quality of drinking water in multiple states in the region. Reduced support for the Alaska Earthquake Center's seismic monitoring means less data to direct the response to tsunami threats on the West Coast. Plans to dismantle the National Center for Atmospheric Research threaten many regional programs, including those that produce data needed to predict wildfires. In cases such as these, local partnerships with universities, citizen-science organizations, and state-funded agencies can work together to save data that will literally save lives.

There are many channels for taking local action to address needs and concerns. A great place to start is the American Statistical Association's landmark report, The Nation's Data at Risk, documenting the threats to the federal statistical system and recommending actions needed to address them. The Civic Hacker Network supports analytics for community service in many cities and metro areas across the country. Universities can support student capstone projects in data preservation, collection, and analysis to meet a need in your area. Both teams and individuals can work with local advocacy organizations that see the needs and often have data, but not the scientific staff, needed to analyze it. In the social sciences, one highly effective tool I have seen is establishing a clearing house for local safety net agencies. One local agency highly trusted by others receives data from the other agencies documenting people and families in need. This allows it to function as a clearing house with the other agencies, sharing data in a discreet and secure manner.

All these actions and more require our expertise in data collection, curation, and analysis to be successful. ■

Getting Involved

This month, consider planning a project for Earth Day on April 22. Start by identifying a particular environmental need and collect the data required for the analysis. Then find a sponsor to provide a site and start recruiting teams.

Also plan for the ASA DataFest, running from March 13 to May 3. The 2026 lineup of local events is now complete, so you can find an event nearby you can support.

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.

STAT*tr@k*

Looking for Your First Professional Job? **Read These Tips**

How do you land your first professional job? The internet is full of advice, but we wanted to hear directly from our members about what it's like in the statistics and data science field, so we asked a few to share how they landed their first job, what they learned, and what advice they'd give to others starting out. What follows is what they had to say.

D. Anthony Miles

D. Anthony Miles is a 35-time award-winning statistician, Enterprise Review Hall of Famer, forensic marketing pioneer, legal expert witness, and six-time best-selling author. He is also CEO and founder of Miles Development Industries Corporation, a consulting practice and venture capital firm, and CMO/equity partner for Safedrop Security Delivery System product.

MILES

What was your first professional position after graduation, and how did you find it?

My first professional job after graduation was in the consumer finance industry. I was one of 15 new college graduates recruited for a branch management training program. I found this job with the help of a job search firm. To be honest, that was interesting considering I hated finance while I was in school, but I actually became good at it working in the industry. I had about 13 years of experience in the grocery retail industry. I had to put myself through college while working at a grocery store. My dad made me get a job and put myself through school. It was tough.

What skills do you believe helped you land the job?

That is a good question. I think what helped me land the job were people skills, analytical skills, leadership skills, work ethic, character, and maturity. Again, I had to put myself through college. My dad made me work for everything. He was really tough on me. He was old school. It built my character. I have been working since I was 14 years old. During my interview, I told them my story, and they were impressed. I did not expect them to be impressed. Another skill I acquired while putting myself through college was the ability to handle pressure and meet deadlines. Those were the skills that helped me.

What is your most valuable takeaway from the experience?

My most valuable takeaway would be the importance of how on-the-job skills help me embellish my academic skills at the workplace. This helped me be able to think on my feet and use my analytical skills. Another important takeaway was gaining the ability to lead a team of people in a group. This experience taught me strong communication and resourcefulness. Businesses do not just want analytical skills; they also want people skills, or soft skills, which they consider to be just as important.

Has your work changed your idea of what statisticians do? If so, how?

Yes, in terms of how work has changed my ideas of what statisticians do. I learned about statistics while I was working at the bank as a marketing analyst. I learned three important lessons. First, I initially perceived the work as just putting together reports. Boy, was I wrong. I learned a statistician's role in disseminating data and information to management is important in the banking field. The role of a statistician—and how data and information is communicated to the end users—is important.

Second, I also discovered the strong need for communication skills. What I mean by that is this: You must learn to communicate with people by taking something complex and making it simple. That means you must explain something so well that the least educated person in the room understands what you mean. I had to really learn how to do that. I was caught in my own world, showing a bunch of complex regression models that do not mean anything to the mere mortals.

Last, you have to take multivariate statistics and show how the data and results benefit them.

People do not think about anything unless they see how it benefits them. And you must show it can help them act. That is what I learned.

What advice do you have for recent graduates applying for their first job?

Great question. I am dealing with this with my two daughters. The most important advice I would give to recent graduates is, first, do not be a one trick pony. What I mean by that is you want to have both academic skills and on-the-job skills. They are two different types of skills and two very different skill sets. In my career, I have seen people who only had one of the two skill sets and it handicapped them. You want to be a double threat. I learned that from my dad, by him making me work to put myself through college. That helped me tremendously. I can't stress that enough.

My second piece of advice is to develop a marketable and technical skill that sets you apart from everyone else. I know that is easier said than done, but learn a skill that makes you unique. Build your niche. Try to develop a skill that is highly sought after and be a genius at it if you can. When you have a skill that is sought after, it sets you apart from the herd. This is often not told to new graduates. You want people to seek you for your expertise in a particular area. That would be my advice to recent graduates.

Shiling Ruan

Shiling Ruan is an experienced biostatistician with more than 15 years of expertise in the pharmaceutical industry and at the FDA. Her unique background enables her to navigate the complexities of regulatory requirements while helping pharmaceutical companies design and optimize clinical trials. She has worked across multiple disease areas, spanning early- to late-phase trials, diverse study designs, and a wide range of regulatory submissions.

RUAN

What was your first professional position after graduation, and how did you find it?

I worked for a small consulting company as a statistical analyst. I found it through Indeed.

What skills do you believe helped you land the job?

Trainings in statistical methodology and programming skills.

What is your most valuable takeaway from the experience?

That job was not what I wanted. For new graduates, it would be better to go to a larger and more established organization to learn and grow.

Has your work changed your idea of what statisticians do? If so, how?

Yes. I think a good statistician should not be just doing analysis but needs to understand the big picture and be able to communicate the impact and influence the decision-maker.

What advice do you have for recent graduates applying for their first job?

Be good at what you learn and what you do. Internship is important, even if it is not paid. Or at least proactively take on interesting projects to practice and improve your skills. Practice to express yourself and your research clearly and concisely. Networking is important but the fundamentals will be the key factor to determine whether you will get the first offer.

Beth Ann Griffin

Beth Ann Griffin is a senior statistician at RAND and serves as codirector of the National Institute on Drug Abuse–funded RAND/USC Opioid Policy Tools and Information Center, whose goal is to foster innovative research, tools, and methods for tackling the opioid epidemic. Her statistical research has focused on methods for estimating causal effects using observational data. Her public health research has primarily fallen into three areas: the effects of gun and opioid state policies on outcomes; substance use and mental health; and the impact of nongenetic factors on Huntington's disease.

GRIFFIN

What was your first professional position after graduation, and how did you find it?

My first and only professional position was at RAND as a statistician. It was kind of random how I discovered RAND while on the job market. I really hadn't heard about them until my husband (who was completing his master's in public policy) encouraged me to attend their information session, where I completely fell in love with the organization!

I was drawn to the mission-driven work and the opportunity to apply statistical thinking to real-world policy questions. The interview process was long but also energizing. I met 15 RAND statisticians and found each one to be kind, smart, happy, and supportive of each other. I knew mentoring at RAND would be excellent.

What skills do you believe helped you land the job?

My job talk! 😄 Related, strong communication skills are key. At RAND, it is important for statisticians to be able to make technical concepts accessible and translate statistical ideas into the real-world applications that resonate with our substantive colleagues. In addition, my technical expertise and ability and desire to collaborate across disciplines were vital.

What is your most valuable takeaway from the experience?

The incredible mentorship I've received at every stage of my career. RAND has a culture of learning and support; people are genuinely invested in helping one another grow. The people and the problems we tackle have made this an environment in which I've been able to thrive both professionally and personally. I am working hard now to ensure I am paying it forward by acting as a mentor to our newest statistics group members and more junior colleagues joining RAND.

Has your work changed your idea of what statisticians do? If so, how?

Not really. I think it just confirmed my understanding of the capacity our field has to do good in the world. Statisticians are integral to shaping research questions, designing studies, and communicating results in ways that influence real-world decisions. We're collaborators, problem-solvers, and storytellers who help connect evidence to action. I love being one!

What advice do you have for recent graduates applying for their first job?

Too much for the space allowed. 😉 First, take time to explore a variety of opportunities to get a sense of what's out there and where you'll thrive. Pay attention to morale and how people treat one another. Ideally, you want to work in an environment in which colleagues support each other and the work energizes you. Don't be afraid to ask about mentorship, professional development, and work-life balance during interviews. The right fit isn't just about the job title; it's about finding a place where you can grow, contribute, and feel valued. ■

Statistics in the Age of AI

Jae-Kwang Kim

Artificial intelligence is reshaping nearly every data-driven discipline, but the challenge is unusually existential for statistics. The question is no longer whether AI will change how statistics is practiced, but whether university statistics departments can adapt quickly enough to remain intellectually and institutionally central in this new environment.

This concern is no longer hypothetical. The recent closure of the department of statistics at the University of Nebraska-Lincoln has drawn widespread attention within the statistical community. Regardless of the specific local factors behind the decision, it underscores a broader reality: The long-term survival of statistics departments can no longer be taken for granted.

In an era in which computation, model fitting, and even statistical explanation are increasingly automated, the traditional sources of disciplinary authority are being fundamentally reconfigured.

The challenges facing statistics departments can be understood through an evolutionary biology framework. Concepts such as environmental shift, selection pressure, and speciation offer a lens for diagnosing why some responses to AI are likely to fail—and why others may allow statistics to not only survive, but to reassert leadership across science, industry, and public policy.

AI as an Environmental Shift

In evolutionary biology, survival depends on how organisms respond to changes in their environment. Evolution is driven by four fundamental elements: environmental shift; variation; selection; and adaptation (or speciation). The rise of AI satisfies all four simultaneously.

AI represents a rapid environmental shift characterized by the democratization of computational power, the automation of model implementation, and the partial substitution of tasks that once required specialized statistical expertise—coding, derivation, and even explanation. As these capabilities become widely accessible, the scarcity that once defined many statistical skills is disappearing. What once served as a competitive advantage is rapidly becoming a commodity.

This does not imply that statistics is becoming obsolete. Rather, it means the basis on which statisticians are evaluated and selected is changing.

Shifting Selection Pressures

Historically, statistical expertise was closely associated with technical mastery: precise computation; efficient model implementation; and command of specialized inferential techniques. In the AI era, these abilities remain necessary, but they are no longer sufficient.

Increasingly, selection pressure favors problem formulation over computation, assumption assessment over model execution, and integration across methods over mastery of isolated techniques. Knowledge, itself, is no longer enough. What matters is meta-knowledge—understanding when methods apply, when they fail, and how conclusions depend on often untestable assumptions.

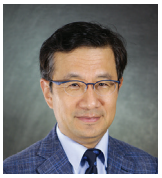
In short, we are witnessing a shift from technical skill to epistemic competence—from "how to compute" to "how to reason."

Three Evolutionary Paths for Statistics Departments

Against this backdrop, statistics departments appear to face the following three broad strategic paths:

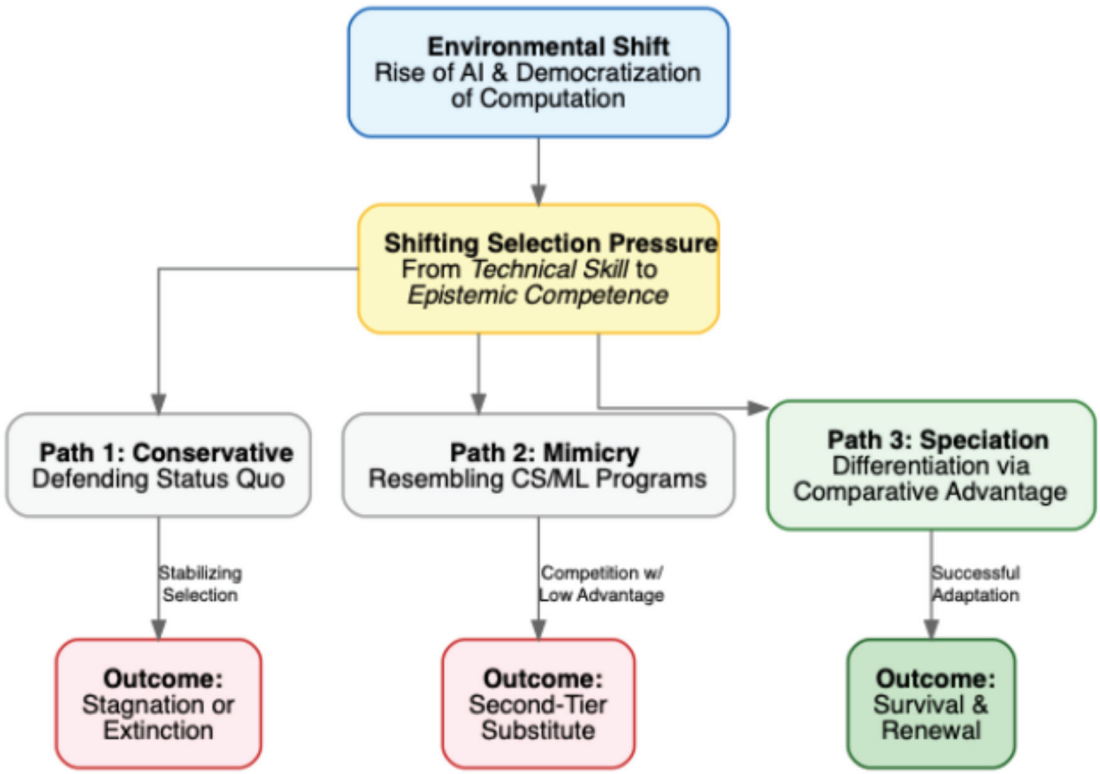
1. **Conservative Evolution: The Risk of Stagnation**

   The first path is conservative adaptation—maintaining existing curricula while defending them by asserting that "statistical foundations still matter." This claim is undoubtedly



Jae-Kwang Kim is dean's professor in the department of statistics at Iowa State University. He is a Fellow of the American Statistical Association and Institute of Mathematical Statistics. He has published two books, *Statistical Methods for Handling Incomplete Data* and *Statistics in Survey Sampling*. He is serving as the vice chair of the ASA Professional Issues and Visibility Council.

Evolutionary Framework for Statistics



The democratization of computation (Environmental Shift) changes the value proposition of the discipline (Selection Pressure). Departments face three adaptive paths, with speciation offering the only viable route to long-term renewal.

true. Probability theory, inference, and statistical reasoning remain essential. However, without reinterpretation and recontextualization, this defense risks sounding inward-looking and disconnected from the realities students and employers face. In evolutionary terms, this is stabilizing selection in a rapidly changing environment, a strategy that often leads to marginalization or eventual extinction.

2. **Mimicry: Competing on Unfavorable Terms**

A second path is mimicry: reshaping statistics programs to resemble computer science or machine learning degrees. While tempting, this strategy is inherently risky. In an academic ecosystem in which computer science departments already dominate this niche—with greater scale, resources, and institutional momentum—statistics departments that pursue mimicry risk becoming second-tier substitutes.

To be clear, the problem is not engagement with machine learning methods. Modern statistics education must grapple seriously with these tools. The distinction lies in the pedagogical lens through which these methods are taught.

The danger lies in teaching ML purely as a set of computational techniques, without statistical re-interpretation. Engaging with machine learning through an epistemic lens—asking when strong training performance fails to

generalize, how to quantify uncertainty in black-box models, and what assumptions justify a prediction—is not mimicry; it is the integration speciation requires.

Mimicry occurs only when we surrender that lens. In evolutionary biology, mimicry succeeds when it confers protection. In this case, it does the opposite: It strips statistics of its comparative advantage, leaving it to compete solely on computation—a battle it cannot win.

3. **Speciation: Creating a Distinct Statistical Niche**

The most promising path is speciation: the development of a clearly differentiated niche that builds on statistics' unique comparative advantages. This strategy does not reject AI or machine learning; rather, it situates them within a broader inferential and epistemological framework that statistics is uniquely positioned to provide.

The rapid rise of causal inference offers a concrete example. Demand for principled reasoning about causality, assumptions, and generalizability has grown across science, industry, and policy. Statisticians, trained to think carefully about data-generating mechanisms and uncertainty, are well positioned to lead in this space. This is not accidental; it reflects a successful instance of evolutionary differentiation already underway.

Diversity of Background as an Adaptive Advantage

From an evolutionary perspective, diversity is not merely beneficial; it is essential for adaptation. As AI increasingly automates the syntax of statistics—coding and calculation—the discipline's value shifts toward semantics: understanding data generation, bias, and context.

Here, the intellectual diversity of statistics students becomes a strategic asset. Students entering from economics, biology, or the social sciences bring distinct inferential instincts: counterfactual reasoning; hierarchical thinking; or sensitivity to measurement error. In the AI era, these domain-specific insights are the raw materials of epistemic competence. They provide the context necessary to ask the questions AI cannot: Is this proxy valid? Does this causal claim align with theory?

By integrating these varied perspectives with a shared core of probability, statistics can achieve speciation—colonizing intellectual niches that pure computation cannot reach. Diversity does not dilute the discipline; it powers its survival.

Conclusion: Survival Through Renewal

The rise of AI does not signal the end of statistics. But it does mark the end of a particular equilibrium, one in which technical expertise alone guaranteed relevance and authority.

Whether statistics emerges from this period diminished or renewed will depend on how deliberately it adapts: embracing speciation rather than mimicry; cultivating epistemic competence; and leveraging intellectual diversity.

But this evolutionary process is ongoing, not a one-time adjustment. Going forward, statistics departments must repeatedly ask themselves: What are the core "genes" of statistics? What can be safely de-emphasized in the AI era? How should undergraduate and graduate training evolve differently? Should statistics remain an independent discipline, or thrive through deeper forms of symbiosis?

Evolution offers no guarantees—only opportunities for those willing to adapt deliberately. ■

OBITUARY

Paul Rathouz

Jonathan Schildcrout

Longtime ASA member Paul Rathouz—a distinguished biostatistician, educator, and leader, whose career spanned nearly three decades of sustained intellectual rigor and deep commitment to public health—passed away on December 10, 2025.

Trained at Rice University, The University of North Carolina at Chapel Hill, and Johns Hopkins School of Public Health, Paul developed methodological expertise in longitudinal data analysis, epidemiological and clinical trial study design, semiparametric models, semiparametric estimating equations, missing and mismeasured data, and latent variable models. Paul's scholarship was characterized by technical excellence, but he was particularly motivated by data analysis and study design to improve human health.

An American Statistical Association Fellow and recipient of numerous honors, including the James E. Grizzle Distinguished Alumni Award from UNC, Paul earned the respect of colleagues across biostatistics, epidemiology, and medical informatics through both the depth of his contributions and his engagement with others.

Paul's academic leadership was as consequential as his research. He served with distinction at The University of Chicago, the University of Wisconsin-Madison—where he was professor and chair of biostatistics and medical informatics—and most recently at Dell Medical School and The University of Texas at Austin, where he was professor of population health and statistics, director of the Biomedical Data Science Hub, and a founding faculty member shaping Dell Medical School's educational mission. In these roles, Paul helped build programs, departments, and interdisciplinary collaborations that will endure long beyond his tenure. He had a rare ability to bridge theory and application, uniting statisticians, clinicians, and investigators around shared scientific purpose.

Teaching and mentorship were central to Paul's identity. Over the course of his career, he developed and taught foundational courses in biostatistics, longitudinal data analysis, survival analysis, and modern data science, often creating curricula from the ground up. He mentored copious doctoral students, postdoctoral fellows, medical trainees, and junior faculty, many of whom have gone on to leadership roles in academia, industry, and public service. Paul's mentees describe him as patient, incisive, and deeply invested in their growth—someone who challenged them intellectually while offering steady encouragement and trust.

Paul was also a devoted servant to the profession. His extensive service to national and international organizations—including the ASA, Eastern North American Region of the International Biometric Society, Committee of Presidents of Statistical Societies, and Society for Clinical Trials—reflected his belief that strong scientific communities require care, governance, and inclusion. He chaired major committees, organized junior investigator workshops, led training programs, and helped shape the future of biostatistics through sustained, often unseen labor. Earlier in his life, his Peace Corps service in the Central African Republic foreshadowed a lifelong commitment to service, education, and global perspective that never left him. Paul maintained a close relationship with friends developed in the Peace Corps.

Beyond titles and publications, Paul was a trusted collaborator, a thoughtful mentor, and a steady presence in moments that mattered—whether guiding a student through difficult mathematical theory or computational programming, helping a colleague think through a complex study design, or building institutional structures that allowed others to succeed. His intellectual legacy lives on through his work and in the many people he taught, mentored, and inspired.

At the center of Paul's life was his love for his daughters, Annika and Hanna Lou. He spoke about them with unmistakable pride, joy, and tenderness, and many recall how deeply he wanted to be present for them, especially as he looked toward the years ahead. He lived with illness longer and more fully than many expected, facing it with courage, clarity, and grace. Paul's legacy lives on in his daughters, in the many lives he shaped, and in the example he set for moving through the world—with intelligence, humility, humor, and heart. He was truly one of the best of humanity and our community. Paul's friends, and his extended family will miss him dearly.

Surveys and Big Data: A Partnership for Better Science in 2026

Emily Berg, Survey Research Methods Section Publications Officer

As you renew your ASA membership, we invite you to elevate your professional engagement by joining the Survey Research Methods Section. In a 2026 landscape dominated by AI and big data, the mission of the survey statistician has never been more vital. We serve as the essential bridge between raw information and scientific truth, providing the probabilistic frameworks that transform digital noise into reliable inference. Far from being a legacy approach, survey methodology is the structural spine of modern data science, ensuring that even the most advanced algorithms remain grounded in representativeness and rigor.

Amid the excitement of the digital age, we must not overlook the fundamental purpose of our field: understanding the people who make up our society. While big data excels at tracking behavior, it often fails to explain the motivations behind those actions. Social media trends and administrative records constitute "passive" data, lacking the intentionality and nuance of a well-crafted survey. Only through traditional methodology can we capture authentic public opinion and the lived experiences of diverse communities. This "active" data collection remains the most scientifically rigorous way to ensure the voices of the public, especially those in underrepresented groups, are accurately reflected in the statistics that shape our world.

Moreover, in an era of expansive, unstructured data sets, volume is no substitute for design. While big data offers scale, it is frequently compromised by selection bias. Survey methods have become indispensable for data fusion, the integration of nonprobability sources such as social media and wearable biometrics into valid inferential frameworks. Survey statisticians provide the necessary anchor, using probability-based designs to calibrate these granular but often unrepresentative found data streams.

The rise of AI has also introduced significant efficiencies, such as conversational agents that assist in data collection to reduce measurement error. However, we must remain vigilant regarding the use of synthetic data and AI personas. Because synthetic data reflects its training source, it carries the risk of amplifying historical biases rather than correcting them. As members of SRMS, we serve as essential data verifiers, ensuring that emerging digital tools are grounded in reality, guided by ethical governance, and held to the highest scientific standards.

We stand at a crossroads where classical rigor meets the frontier of artificial intelligence. The SRMS is a vibrant community in which the most pressing questions of data integrity, algorithmic justice, and ethical privacy are being addressed. Join us in SRMS and help us lead the future.

To learn more about the section, visit *https://tinyurl.com/ASASRMS.* ■

An Interview with Marcia Levenstein,
NYC Chapter Treasurer and Longtime ASA Member


Marcia Levenstein

Marcia Levenstein is a biostatistician and bioethicist with expertise in clinical research, real-world evidence, and the ethical application of artificial intelligence and machine learning in health data analysis. A former vice president of statistics at Pfizer, she led global biometrics strategies across therapeutic areas and played a key role in clinical trial policy, bioethics, and data transparency.

Levenstein provides advisory leadership on the use of statistics and AI/ML for secondary data analysis at Vivli and has served on academic, AI/ML start-up, and professional ethics boards. She holds undergraduate degrees in mathematics and life sciences from MIT and advanced degrees in biostatistics from Harvard and The University of North Carolina and bioethics from the University of Pennsylvania.

The following interview was performed by the New York City Chapter's executive committee members.

Looking back at the New York City Chapter's 90-year journey, what was your role and what were some significant contributions to the statistical community locally and nationally?

I have been a member of the NYC Chapter of the ASA since I returned to New York City and started working. After reconnecting with statisticians I knew from college, I joined the executive committee and chaired the membership committee. For several years, I led this committee and eventually moved to the role of treasurer for the chapter. I continued in that role for most of the years until the present time.

Over these years, I have been involved with planning and organizing many of the chapter's activities, including symposia, short talks, focused full-day workshops on newly emerging topics, career workshops at local schools, speaker engagements with students about a career in statistics, and poster competitions. The chapter has hosted traveling courses from the ASA. Recently, these were remote courses, but they were in person earlier and provided local members with the opportunity to hear from leading national statistical speakers.

These activities were tailored to meet the varying needs and interests of chapter members and to promote statistics among students to help the profession continue to grow.

How has your involvement with the NYC Chapter shaped your own professional path?

I have fond memories of coordinating and judging poster competitions for NYC students ranging from elementary to high school. Workshops in focused areas such as forecasting, meta-analysis, large language models, machine learning, and ethical issues in analytics were highlights over the past years. We have held refresher courses many times to benefit members who wanted to keep their skills up to date. The topics covered in the course have been updated as methodologies advance to reflect the current state of the art. Recently, we partnered with Regeneron to cosponsor a workshop on innovative statistical methods and with a local nonprofit, AI4Purpose, to cosponsor a workshop on AI.

My involvement with the chapter has led to connections with other statisticians I would have not otherwise met and broadened my perspective on the profession. I had many chances to network with statisticians from different industries. We have partnered with other chapters, local universities, and technical companies to provide forums for our members to learn. The chapter has continued to provide symposia, either in person or remotely, which have been extremely popular with chapter members. The benefit of offering short talks is that it enables us to cover many topics for our membership, which has diverse needs. We have been able to leverage local talent in a variety of venues.

In addition to my role in the NYC Chapter, I was a member of the Committee on Professional Ethics, which updated the ASA Ethical Guidelines for Statistical Practice. In this work and our recent outreach, we are ensuring that we collaborate with professionals who might not think of themselves as statisticians. We are focused on bringing together statisticians, data scientists, and AI practitioners, rather than creating barriers.

As the chapter moves beyond its 90th year, what short- and long-term opportunities or challenges do you anticipate for statisticians, and how should the chapter evolve to meet them?

As we look at the next 10 years, it will be critical for us to continue to promote statistical principles and best practices as we collaborate across the entire spectrum of professions that utilize data. The need for technical excellence and capabilities will continue to be essential, but we need to recognize that effective communication is key for our success. While we may depend on quantitative methods and numbers to understand the world, we need to communicate through stories so that others understand us to be influential. ■

ASA NYC Chapter Members Celebrate 90 Years

Kelly H. Zou, Chapter President

From left: Ron Wasserstein, Adnan Mian, Kelly H. Zou, Shamsi Farima, Jose Ma. Alvir, Amanda Malloy, Amelia Warren, Daphna Harel, David Banks, Siddhesh Kulkarni, MaryLena Bleile, Ben Nguyen, Siqi Wang, Miles Avila, and Margaux Delporte

The New York City Chapter of the American Statistical Association hosted its 90th anniversary gathering at the Sahara Turkish Restaurant on December 12, 2025. The room was filled with longtime and current ASA members from various sectors, including academia and industry.

During the celebration, 15 members and two visitors—ASA Executive Director Ron Wasserstein and ASA Director of Development Amanda Malloy—mingled with fellow statisticians and data scientists, shared stories, and caught up on each other's latest projects and endeavors.

As members made their way to the dining area, a tent decorated with colorful pillows—fitting for the ASA—attendees were able to take in the elegant décor and backdrop of the Empire State Building nearby.

While everyone was sitting down, Wasserstein recollected the chapter's history, emphasizing the importance of statistics and data science in shaping policy and decision-making and highlighting the impact statisticians can have on society.

The evening also featured a tribute to the chapter's past executive committee members and Jose Ma. Alvir, who served as the chapter president and editor of the Biopharmaceutical Section's *Biopharmaceutical Report*. As the night wore on, attendees had the opportunity to connect with students and make new friends within the chapter, discussing the latest statistical trends, artificial intelligence, and interests and hobbies.

The highlight of the evening was a white elephant gift exchange using probabilistic skills. Sought-after items included puzzles, tea, mugs, ASA memorabilia, and T-shirts. Wasserstein offered to join the chapter at its 100th anniversary, a decade from now.

It was a celebration of not only the ASA NYC Chapter's milestone anniversary but also the power of community, collaboration, and statistics. ■

Longtime Chapter Members

George Ashwerman
Vittorio Castelli
Sandra Clarkson
Sung-Kiang Chuang
Karl Heiner
Bruce Hochberg
David Jaspen
Martin Lesser
Marcia Levenstein
Todd Lipton
Guy Manuel
Rober Rosati
John Rotondo
Stewart Sloane
Judith Tanur

Top Ten Ways of Expressing the Year 2026

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*. Ron says, "As I considered the year ahead, I got to thinking how my younger self could not have imagined the year 2026, nor did younger Ron think about how old he would be then. But rather than dwell on that, I decided to enjoy my love of numbers by thinking about various ways of referring to the year 2026. So, here are the top ten ways of expressing the year 2026."

Wasserstein

10

MMXXVI, as a Roman numeral. I'm sure you expected me to do this.

09

7EA (hexadecimal)

08

505 + 506 + 507+ 508 (i.e., as the sum of four consecutive numbers)

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

07

2×1013, which is the prime factorization of 2026.

06

$45^2 + 1$

05

We could call it year 1, since 1 is the value of 2026 modulo 3.

04

The square root of 4,104,676

03

1012, which is Euler's totient function phi(2026) (yay for number theory!)

02

The Year of the Horse

#01

Hold on tight. Here we go again!

224 donors contributed $70,414 to support programs that will enrich society through statistics, data science, and AI.

ww2.amstat.org/givingday

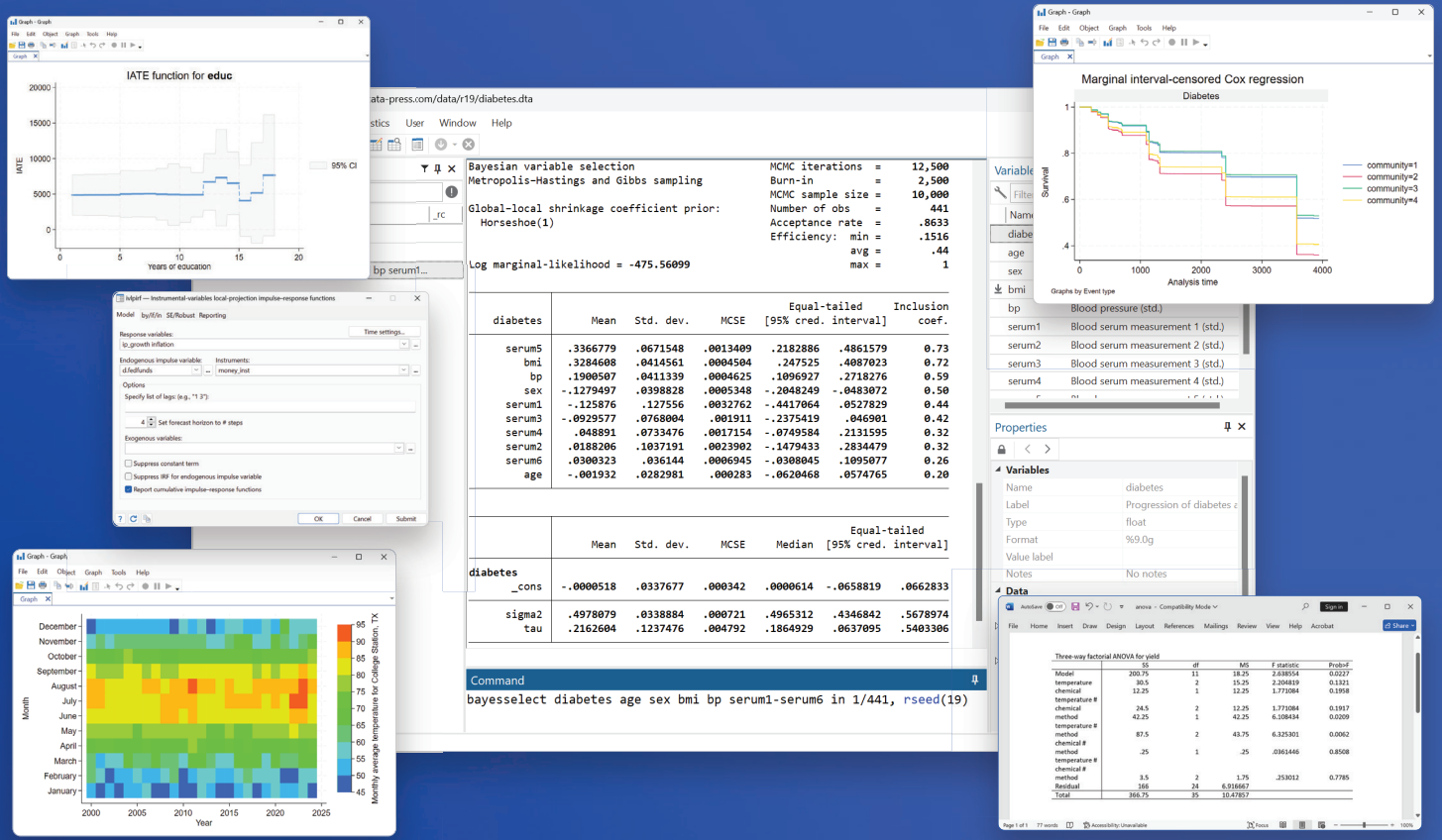
THANK YOU FOR MAKING ASA GIVING DAY A SUCCESS!

STATA®

Consistent. Reliable. Reproducible.

Stata provides everything you need to analyze data, generate insights, and share findings—all in one complete package.

Discover the Stata difference, and see why Stata is the trusted choice for data analysis.



stata.com/amstat-stata-difference