February 2025 • Issue #572

AMSTATNEWS

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

ALSO:

Final Call: Submit a Late-Breaking Session Proposal to Be on JSM Program

Fostering Diversity in Biostatistics Workshop Creates Lasting Opportunities

DIONNE PRICE
PUBLIC LECTURE SERIES

Thank you!

The $75,000 goal to endow the Dionne Price Public Lecture Series has been met!

Thank you for honoring Dionne through your contributions to this lecture series that will carry on her commitment to showcasing the impact of statistics on science and society.

The inaugural lecture will take place **April 22 at the Urban Institute** in Washington, DC.

AMSTATNEWS

FEBRUARY 2025 • ISSUE #572

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

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

features

columns

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*.

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.*

Object-Oriented Data Analysis and Its Applications: A Conference in Celebration of James S. Marron's 70th Birthday, May 18–20, Chapel Hill, North Carolina

Explore cutting-edge advancements in object-oriented data analysis, a framework for understanding and analyzing complex data. Topics include shapes, trees, covariance matrices, and nonnegative curves. Don't miss this opportunity to celebrate J.S. Marron's contributions and engage with leading experts while fostering interdisciplinary dialogue and innovation in modern statistics. Learn more at *https://tinyurl.com/4mu5bzh7*.

Consortium of Social Science Associations Social Science Advocacy Day Is Back

Join social scientists and science advocates from across the country and make your voice heard in support of social and behavioral science. Advocacy Day will take place March 24–25 in Washington, DC. Learn more about how you can get involved: *https://tinyurl.com/2sek43ap*.

WANTED: Speakers for the Dionne Price Lecture Series

The American Statistical Association invites suggestions for Dionne Price Public Lecture Series speakers. This distinguished series honors Price's vision of statistics and data science as forces for public good, echoing her chosen theme, "One Community: Informing Decisions and Driving Discovery." She was also a passionate mentor, so the lecture will serve to raise the profile of an early-career statistician or data scientist contributing to public welfare through statistical work.

The audience for this public lecture includes students, educators, community members, and professionals working in diverse sectors who are interested in the impact of statistics on our world. Speakers will present at rotating venues across the United States—alternating between the West Coast, middle states, and East Coast—with live streaming available to ensure broad accessibility and engagement.

Submit suggestions via the form at *https://tinyurl.com/mryaxkta* by March 15.

departments

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

member news

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Presidential Initiatives: Creating Pathways for a Stronger Future

Hello, fellow statisticians and data scientists. This month, I want to share more about my focus on building strong, sustainable bridges—both within our community and beyond. We are living and working in a rapidly changing world driven by AI technologies, which presents opportunities and challenges to advance our profession. Under this broad vision, several key initiatives have taken shape from my time as president-elect, and I want to share a few of them with you.

Collaboration with *Nature Medicine*

One notable effort focuses on building a new relationship with high-impact scientific journals that lack formal statistical editorial boards in their review processes. In May 2024, the ASA and *Nature Medicine* signed an inaugural memorandum of understanding. Through this partnership, we recruited 33 statisticians specializing in oncology, metabolic diseases, and infectious diseases to serve as the journal's first official statistical advisory panel. After six months of collaboration, we conducted an evaluation, and the journal expressed strong interest in expanding the partnership to cover additional disease areas with further statistical expertise. It's worth noting that this advisory work is entirely driven by volunteers, which is a testament to the commitment of our statistical community.

Looking ahead, we're exploring ways to make our voices heard itn this space. This might include submitting collective guidelines, introducing new statistical methods, or highlighting common pitfalls in medical research related to statistical considerations. An interview with the *Nature Medicine* editors and ASA members will be shared in the March issue.

My goal is to build on this successful model and establish meaningful partnerships with other organizations. I welcome your ideas and suggestions about opportunities for meaningful collaborations.

Tailored Leadership Program

Dionne Price, the 2023 ASA president, passed away on February 22, 2024, at just 52 years old. She left behind a legacy of scientific excellence, dedicated mentorship, and an unwavering commitment to promoting statistics for the greater good. As deputy director of biostatistics at the US Food and Drug Administration's Center for Drug Evaluation and Research, Dionne was not only a remarkable statistician but also a passionate advocate for diversity in our field.

Ji-Hyun Lee

Her work with StatsForward, an ASA initiative aimed at encouraging early-career professionals to develop their skills and knowledge and make a commitment to becoming leaders in our profession, remains one of her most impactful contributions.

I want to build on Dionne's legacy by expanding the impact of StatsForward.

The Leadership Institute was formally established in 2018 under Lisa LaVange's presidency, and it has since hosted various leadership programs serving ASA members across different sections, chapters, and special interest groups. It is essential to continue to integrate leadership development into our professional development offerings and proactively communicate their availability to ensure maximum participation and impact.

Sustainable initiatives build on past successes, so I want to focus on a clear dissemination and implementation strategy to better leverage the programs we have. Of course, leadership development programs must also evolve to align with today's rapidly changing professional landscape.

One of the first offerings of the Leadership Institute explored the need to recognize cultural differences in attitudes toward leadership and to learn how to develop strong and effective leaders in light of these differences. I believe this focus on cultural competence as part of leadership development is particularly important. There isn't a one-size-fits-all approach to leadership. Much like personalized medicine tailors treatment to individual patients, cultural context shapes how we communicate and perceive leadership roles.

Growing up in Korea, humility was emphasized as a core value. When someone praised a child's achievement, the typical response wasn't "Thank you!" but "Oh, no, no. She is not that good." The concern was that acknowledgment might lead to arrogance.

It took me years—and significant intentional effort—to adjust this mindset, especially in professional settings. I had to learn to navigate different communication styles, challenge my own biases, and embrace inclusivity as a leadership strength.

One moment from my early career still lingers in my memory. During a Joint Statistical Meetings conference, I stopped by the Statistical Consulting Section's business meeting and reception. Marlene Egger, then at the University of Utah, warmly approached me and asked if I would be interested in taking on an office position within the section. I was thrilled to be asked; it felt like a validation of my potential. But my reaction? "Oh no, I'm not good at that." I declined her offer.

Looking back, I often wonder if I unknowingly turned down an opportunity to learn about the ASA, gain valuable leadership experience, and set myself on a clearer path for growth? I'll never know. But I do know this: My story isn't unique. I've met many colleagues, especially those from underrepresented or culturally distinct backgrounds, who've faced similar internal barriers.

These missed opportunities aren't just personal losses. They're collective losses for our ASA community. Every voice that hesitates to lead is a voice we miss in shaping our association's future. We can't afford to let cultural barriers hold back potential leaders. It's time to ensure no talented statistician hesitates to say yes when opportunity knocks.

To address this, I will work with the newly established professional development advisory committee and external experts to design and implement a culturally tailored leadership program. This initiative will honor Dionne's vision while building a more inclusive, diverse, and effective ASA leadership community.

Rethinking Reviewers' Role in Grant Review Study Sections

For more than two decades, I've served as a statistical reviewer in various grant review study sections. These sections primarily evaluate proposals in fields such as epidemiology, medicine, and basic science research. Typically, a study section consists of 20–30 subject-matter experts and just two to three statistical reviewers in nonstatistical fields. Each proposal is assigned two subject experts and, when necessary, one statistical reviewer.

Statistical reviewers are expected to focus on study design, sample size justification, and analysis plans. But our role doesn't stop there. As full members of the study section, we also contribute to evaluating broader review criteria essential to funding decisions. After group discussions, every reviewer scores the proposal based on collective feedback.

Despite the importance of statistical input, our comments are often viewed as fixable post-funding, rather than critical for initial evaluation. Statisticians are sometimes seen as slowing down the review process, and communication remains a persistent challenge. Explaining complex statistical issues in plain language to nonstatistical reviewers is no small task, especially under time constraints imposed by study section chairs or funding agency offices.

Junior statistical reviewers often add to this challenge by limiting their contributions. I've frequently heard them say, "I am not a content expert; my comments are only about the statistical aspects." While technically accurate, this narrow framing undermines their influence. To accurately assess the study design and analysis plans, a reviewer must engage with the scientific content at a foundational level.

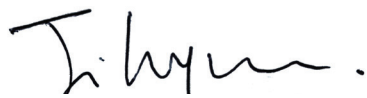
These challenges have broader consequences. They don't just affect individual proposals; they shape statistical rigor across scientific research funded by the National Institutes of Health, National Science Foundation, and other agencies. It is time to rethink our approach. I propose training initiatives to enhance statisticians' roles in grant review processes. These will include the following:

- Workshops with external experts to refine communication skills and broaden perspectives
- Panel sessions to share best practices and address common challenges
- Guidelines for new statistical reviewers to clarify expectations and build confidence

Statistical reviewers play a crucial role in ensuring the integrity of scientific research. Strengthening our presence and impact in grant review study sections isn't just a professional responsibility; it's an opportunity to shape the future of research excellence.

As I shared at the beginning of this column, my priority is to build bridges. Since February is Black History Month, it is important to recognize that the ability to build bridges relies on a diverse community and the inclusion of many perspectives. Thank you for being part of our ASA community. I hope we can count on you.

With gratitude,



SIGNIFICANCE HIGHLIGHTS

January Issue Focuses on Statistics and Aging

By 2050, more than a fifth of the global population will be aged 60 or older. Some have called it the most daunting demographic challenge facing the world, and, from a data perspective, we are not ready for it. There are, in fact, such significant gaps in the availability of age-disaggregated data, with such serious implications for advance planning, that the United Nations set up a special taskforce to investigate them. You can read about that investigation in this issue dedicated to the subject of old age.

You'll also find a statistical examination of who gets to retire and who does not; suggestions for how academics can stay engaged with statistics after hanging up their cap and gown; an exploration of the complex issues around driving while old; and an in-depth interview with Karen Bandeen-Roche, a biostatistician renowned for her research into ageing and age-related frailty. We also share the story of how a northern Irish town with an aging demographic learned about itself thanks to a volunteer statistician and publish an extended Q&A section with four statisticians aged 86, 95, 96, and 98.

- **Older Persons in Global Statistics**—A UN-commissioned group has been investigating data gaps and their impact on our aging population.
- **Retirement in the UK**—Not every older person retires at the same age. Some do not want to or cannot afford to.
- **Reimagining Retirement for Statisticians**—Advice on life after an academic career in statistical sciences.
- **Driving While Old**—The complex issues around old age and fitness to drive.
- **Profile: Karen Bandeen-Roche**—The gerontologist and statistician studies frailty and resilience in older adults.
- **Defining Donaghadee**—How a volunteer statistician helped a northern Irish coastal town understand its identity.
- **Living Long and Prospering: A Q&A Special**—Four statisticians in their 80s and 90s talk about their careers.

Access the digital version of *Significance* through the ASA's portal at *https://amstat.users.membersuite.com/home*. ■

ASA Board Proposes Changes to Executive Committee Voting Rights

The ASA Board of Directors recommends amendments to the ASA bylaws and constitution to grant the treasurer voting rights on the executive committee, changing the position from its current ex officio non-voting status.

The proposed changes are as follows:

- **Bylaws, Article V, Section 5**

  Current version: The Treasurer is responsible for the duties assigned by the Constitution and Bylaws. The Treasurer serves as a voting member of the Board and as an ex officio member of the Executive Committee without vote.

  Proposed version: The Treasurer is responsible for the duties assigned by the Constitution and Bylaws. The Treasurer serves as a voting member of the Board and of the Executive Committee.

- **Constitution, Article VII**

  Current version: The Executive Committee consists of the President, President-Elect, Past President, senior Vice President, Secretary, and Treasurer. The Secretary and Treasurer are ex officio members without vote.

  Proposed version: The Executive Committee consists of the President, President-Elect, Past President, senior Vice President, Secretary, and Treasurer. The Secretary is an ex officio member without vote.

ASA members who have comments about the proposed changes should send them to Ron Wasserstein, ASA executive director, at *ron@amstat.org*, by March 15.

January Issue Provides Statistics, Data Science Buffet

Juana Sanchez, *JSDSE* Editor

The *Journal of Statistics and Data Science Education* (*JSDSE*), emphasizes that "teaching for the statistics (and data science) buffet" helps advance the growth and diversity of the statistics and data science professions. Specifically, the journal includes papers that present teaching statistics or data science topics from alternative perspectives, provide learners with various ways to engage with statistics and data science topics and peers, offer strategies to ensure equal opportunities and access to essential statistics and data science technology, and showcase teaching methods that support learners' identities while promoting a sense of belonging in statistics and data science. The January issue follows this same approach.

Featured articles in the January issue include the following:

Data Science Education Strategies in Specific Disciplines

- "Fostering the Development of Earth Data Science Skills in a Diverse Community of Online Learners: A Case Study of the Earth Data Science Corps," Nathan A. Quarderer, Leah Wasser, Anne U. Gold, et al. *https://doi.org/10.1080/26939169.2024.2362886*
- "Virtual Biostats Day: An Interactive Online Biostatistics Outreach Program Directed at High School Students in Groups Historically Underrepresented in STEM Careers," Esther Drill, Jessica A. Lavery, Stephanie Lobaugh, et al. *https://doi.org/10.1080/26939169.2024.2362150*

Curricula for Non-STEM Majors

- "Constructing a Course on Classification Methods for Undergraduate Non-STEM Students: Striving to Reach Knowledge Discovery," Anna Khalemsky, Roy Gelbard, and Yelena Stukalin *https://doi.org/10.1080/26939169.2024.2320218*
- "Data Skills for Everyone! (?)–An Approach to Assessing the Integration of Data Literacy and Data Science Competencies in Higher Education," André Coners, Benjamin Matthies, Carolin Vollenberg, and Julian Koch *https://doi.org/10.1080/26939169.2024.2334408*

High School Resources for Data Science and Statistical Literacy

- "Studying the Opportunities Provided by an Applied High School Mathematics Course: Explorations in Data Science," Jo Boaler, Kira Conte, Ken Cor, et al. *https://doi.org/10.1080/26939169.2024.2333735*
- "Lessons to Demonstrate Statistical Literacy Skills: A Case Study of Japanese High School Students on Reading Statistical Reports," Shunya Koga *https://doi.org/10.1080/26939169.2024.2334903*

Strategies and Resources for Statistics Educators

- "Using Formative Assessment and Feedback from Student Response Systems (SRS) to Revise Statistics Instruction and Promote Student Growth for All," Grace Pai *https://doi.org/10.1080/26939169.2024.2321241*
- "Red Light Reaction – A Statistics Project with Real Life Application," Silvia Heubach and Tuyetdong Phan-Yamada *https://doi.org/10.1080/26939169.2024.2407781*
- "Age Guessing: A Game to Introduce Fundamental Statistical Concepts," Amir Rastpour and Abraham Amini *https://doi.org/10.1080/26939169.2024.2319152*
- "Simulation-Based Inference: Random Sampling vs. Random Assignment? What Instructors Should Know," Beth Chance, Karen McGaugheu, Sophia Chung, Alex Goodman, Soma Roy, and Nathan Tintle *https://doi.org/10.1080/26939169.2024.2333736*

The January issue also includes an editorial, "Improving the Teaching and Learning of Data Science, Statistical Literacy and the Science of Data," highlighting the papers and the change of names chosen for our discipline (see *https://doi.org/10.1080/26939169.2024.2426950*).

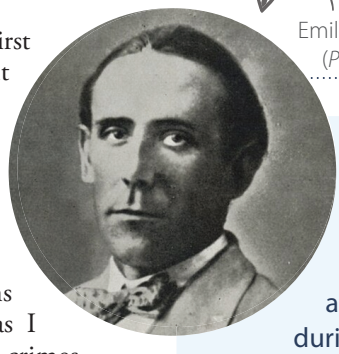
To receive updates about *JSDSE* or share feedback, email Editor Juana Sanchez at *jsanchez@stat.ucla.edu*. Also, no matter how advanced the statistics and data science course or concept you are teaching, if you have an educational approach or resource that could help others enhance their teaching, consider *JSDSE* as the platform to share it.

View the latest issue at *www.tandfonline.com/toc/ujse20/current*. ■

STATISTICIANS IN HISTORY

Emil Gumbel: Statistician and Courageous Apostle of Peace

Chris Barker, Statistical Planning and Analysis Services



Emil Gumbel, 1931
(Public Domain)

In the spring of 2024, I took my first trip to Berlin, Germany, to visit my eldest son and his wife. While there, I was visiting the Brandenburg Gate when I decided to visit a nearby history museum named *Topographie des Terrors*, translated to English as "Topography of Terror." Statistics and statisticians were furthest from my thoughts as I looked at the chilling history of crimes against humanity that took place during World War II. Yet, I noted one exhibit titled "Chronicler of Political Murder," which is about a German mathematician at Heidelburg University. The mathematician's name, Emil Gumbel, seemed familiar to me. I wondered if he was the same Gumbel who kept records of court cases and political assassinations by the fascists in Germany. I later confirmed that Gumbel the mathematician, the Gumbel Distribution, and the book *Statistics of Extremes* were all related to the statistician of my thoughts: Emil Gumbel.

Gumbel, sometimes called an "apostle of peace," tracked political assassinations—among other data—in Germany prior to the outbreak of WWII. He was identified as an enemy of the Reich, and he and his family were exiled to France and then New York, where he worked as a professor at Columbia University. A collection of his pamphlets, speeches, and publications from 1914–1966 are preserved at the Center for Jewish History in New York City.

Gumbel created a table with two columns—murders by the right wing (Column 1) and murders by the left wing (Column 2)—with the numbers convicted and imprisoned and length of imprisonment. The table is chilling and self-explanatory. A statistician is not needed for one to determine many more left-wing individuals who were convicted, assassinated, and had longer prison terms.

Germany Memorializes Its History

Berlin could be described as the "city of museums and memorials" for atrocities against Jews, military actions, and a fascist dictatorship during World War II. I also visited Nuremburg and Court Room 600, the location of the Nuremburg trials. Near where I was staying was a synagogue damaged during Kristallnacht, November 8–9, 1938. It was home to a memorial for Jews kidnapped in Israel on October 7, 2023.

Tabulation of Political Murders, circa 1938 by Emil Gumbel

Summary Statistics Murder- tabulation by Emil Gumbel

Here is a summary of some of the statistics Gumbel collected on these events:

Political Killings Committed

	by the Left	by the Right
Total number of murders	22	354
Number of convictions	38	24
Duration of incarceration per murder	15 years	4 months
Number of executions	10	0

Gumbel also states,

Virtually all of the relatively small number of assassinations of reactionaries have been atoned for through severe penalties; of the very numerous assassinations of men of the left, on the other hand, not one has been atoned. Credulousness, wrongly understood orders, or actual or purported insanity were always the bases of the defense to the extent that trials even took place. Most of the proceedings were quashed either by the prosecutor's office or the criminal court.

Gumbel's work in Germany was so dangerous that a squad of SS (Schutzstaffel) soldiers were sent to assassinate him. Gumbel wasn't home at the time! After his escape from Germany to France, he was stripped of his German citizenship (1932), his books were burned (1933), and his professorship at Heidelburg was rescinded. ■

TIME SERIES This Month in Statistics History

Carl Liebermeister
February 1, 1833 – December 24, 1901
In 1877, Liebermeister—a physician—published a Bayesian forerunner of Fisher's exact test, 50 years before Fisher. The test had practical application for comparison of treatment efficacy in small-sample trials.

Janet Lane-Claypon (Lady Forber)
February 3, 1877 – July 17, 1967
One of the founders of modern epidemiology. Pioneered case-control and retrospective cohort study designs. One of the first people to earn both an MD and DSc.

Jane Loevinger
February 6, 1918 – January 4, 2008
A psychologist, Loevinger developed Loevinger's H scalability coefficient (a measure of questionnaire item pair quality) and the Washington Universal Sentence Completion Test, a widely used measure of ego development.

Daniel Bernoulli
February 8, 1700 – March 17, 1782
Although best known for his principles for conservation of energy, he made major contributions to statistics, including one of the first attempts to analyze censored data in a study of smallpox morbidity and mortality data.

Kate Claghorn
February 12, 1864 – March 22, 1938
First woman elected ASA Fellow. In 1896, she was the first woman to publicly earn the PhD degree from Yale. Best known for prescient work on social statistics, immigration, and juvenile socio-legal issues.

Isabella Leitch
February 13, 1890 – July 21, 1980
A nutritional physiologist, Leitch made major contributions to the development and quality improvement of systematic reviews. She was among the first to publish guidelines holding reviews to the same high scientific standards as 'primary' laboratory research.

Thomas Malthus
February 13, 1766 – December 29, 1834
Best known for his 1798 *Essay on the Principle of Population* arguing against the contemporary view that societal progress was achievable by unchecked population growth. Paradoxically, he disapproved of contraception.

Francis Galton
February 15, 1822 – January 17, 1911
Statistical innovations include experimental derivation of normal distribution, correlation and regression, variance and standard deviation, and regression to the mean. He was a eugenicist and coined the terms "eugenics" and "nature vs. nurture."

Nathan Mantel
February 16, 1919 – May 25, 2002
ASA Fellow. Known for the log-rank test for survival data, Mantel-Haenszel test, odds ratio for contingency table analysis, and major contributions to epidemiology, including diagnostic tests, time-dependent covariate analysis, and logistic regression.

Sir Ronald Aylmer Fisher
February 17, 1890 – July 29, 1962
Fisher made lasting contributions to both theoretical and applied statistics, experimental design, randomization, and analysis of variance. First president of the International Biometric Society. His racist and eugenicist views sparked debate about wider issues of diversity, representation, and academic values.

George Udny Yule
February 18, 1871 – June 26, 1951
President of the Royal Statistical Society, 1924–1926. Best known for influential papers on time-series analysis, regression, measures of association, and genetics. He began to study Latin to read Thomas à Kempis in the original language, which led him to work on statistical methods for investigating disputed authorship.

Dorothy M. Gilford
February 19, 1919 – December 6, 2014
ASA Fellow, 1961; Fellow of Institute of Mathematical Statistics, Royal Statistical Society, and American Association for the Advancement of Science. Head of mathematical sciences division, Office of Naval Research, and National Center for Education Statistics. Awarded Federal Woman's Award in 1965 by President Lyndon Johnson, the second statistician after AJ Wickens to receive it.

Evelyn Chrystalla (E.C.) Pielou
February 20, 1924 – July 16, 2016
ESA Eminent Ecologist Award, 1986; Distinguished Statistical Ecologist Award, 1990; Fellow, American Association for the Advancement of Science. An influential ecologist in the 20th century for foundational work in statistical ecology.

Tobias Mayer

February 17, 1723 – February 20, 1762

His 1750 work on lunar motion was a forerunner to the least-squares method, for which he developed a set of 27 linear equations ("equations of condition") to solve for three unknown parameters.

Adolphe Quetelet

February 22, 1796 – February 17, 1874

First international member of the ASA. Early adopter of the then-new science of probability and statistics applied to social science.

Royal Meeker

February 23, 1873 – August 16, 1953

ASA Fellow, 1916. Commissioner of labor statistics, US Department of Labor, 1913. Chief, scientific division, international labor office of the League of Nations, 1920. Advocated for progressive reforms, including minimum wage, national health insurance, child labor restrictions, and workmen's compensation.

Richard Price

February 23, 1723 – April 19, 1791

Known for popularizing essays by his friend Thomas Bayes that were the basis of what is now called Bayes Theorem. He was a founder of the actuarial profession, developing methodology for insurance and annuities in the 1760s.

K. C. Sreedharan Pillai

February 24, 1920 – June 5, 1985

ASA Fellow, 1969. Known for research in multivariate statistical analysis and Pillai's trace test statistic for MANOVA and MANCOVA.

Francis Ysidro Edgeworth

February 8, 1845 – February 13, 1926

President, Royal Statistical Society, 1912–1914. First to introduce the concept of "significant" differences, 1885, and the expression "coefficient of correlation."

Joe Doob

February 27, 1910 – June 7, 2004

Pioneer in the study of mathematical foundations of probability theory. Known for the theory of martingales and stochastic processes. National Medal of Science, 1979. President, Institute of Mathematical Statistics, 1950, and American Mathematical Society, 1963–1964. Elected to National Academy of Sciences, 1957.

Florian Cajori

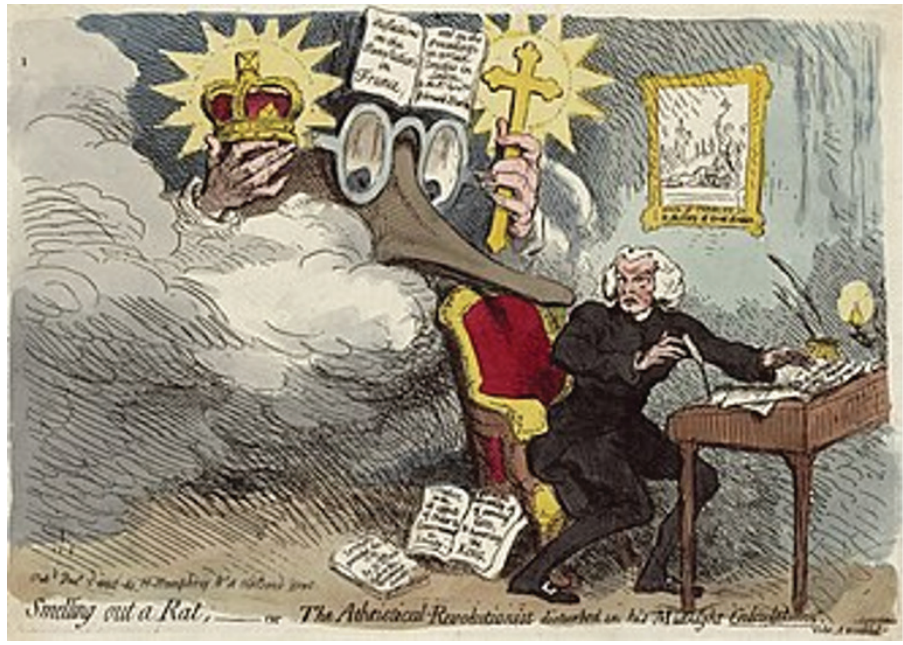
February 28, 1859 – August 14, 1930

President, 1917, and cofounder of Mathematical Association of America. Introduced the study of the history of mathematics as an academic discipline.

Herman Hollerith

February 29, 1860 – November 17, 1929

Inventor of the punched card tabulating machine, pioneer of data processing automation and mechanized binary code. Known for the first automated US census, 1890.



A caricature of Richard Price by James Gillray, 1790. Edmund Burke (and his nose) is behind him.

EVENTS

February 8

Happy e-day! This is the day to celebrate the base of the natural log e = 2.7182818. e first appeared in print in 1727–8 in a paper titled "*Meditatio in Experimenta explosione tormentorum nuper instituta*" by the 21-year-old Leonhard Euler. However, John Napier had already compiled a list of logarithms to base e, and Jacob Bernoulli developed it to solve problems of compound interest.

February 15, 1946

Official launch of the ENIAC general-purpose electronic digital computer by engineers John Mauchly and J. Presper Eckert (a demonstration for journalists occurred the day before). Overlooked were six highly trained female mathematicians who did the programming: Fran Bilas; Jean Jennings Bartik; Ruth Lichterman; Kay McNulty; Betty Snyder; and Marlyn Wescoff. They were not invited to either the first celebration dinner or ENIAC's 50th anniversary. ■

MORE ONLINE
Download the resources PDF from *https://tinyurl.com/4spsm837*.

Welcome TO OUR NEWEST MEMBERS

Sarah K. Abramowitz
Titilope O. Adeniyi
Victor Aderanti
Izabel Aguiar
Najmuddin Ahmed
Agnideep Aich
Oluwafisayo Ajayi
Yasmine AL Moghrabi
Stacey E. Alexeeff
Daven Amin
Esme Anaab
Caroline Marie Andy
Cody Arington
Omid Armantalab
Adriana Sin Ascencio
Mahsa Ashouri
Jordan Atlas
Ruiqi Bai
Alex Bank
Erasmus Bator
Heather Battey
Jason Baumgardner
Sydney Bell
Breanna E. Blackwood
Varun Chandra Boinpelly
Soham Bonnerjee
Benjamin C. Bowe
Walter R. Boyle
Bryn Brakefield
Benjamin Brewer
Guy N. Brock
Colin Brown
Jeffrey S. Buzas
Hyeongmin Byun
Andrea E. Cassidy-Bushrow
Jae Chang
Ian Chen
Aili Cheng
Neal Alfred Levac Cody
Warren Scott Comulada
Cory Cooper
Jeanne M. Courval
Steven Culpepper
Runpeng Dai
Deborah Damptey
Bharani Dharan
Connor Donegan
Adida Dostmohamed
Ayobami Gboyega Fadilat
Gabriel Farkas
Emily Fekete
Suoyao Feng
Evan Ferkingstad
Thomas Damon Flynn
Katherine Diane Freeman
Haoxuan Fu
Shanker Gangone
Prithwish Ghosh
Karen L. Gonzalez
Maitri Gosrani
Lisa Griggs-Stapleton
Artur Grigoryan
Yichen Guo
Joy Hackenbracht
Mandy S. Hall
Blake Hansen
Paula B. Honebrink
Nasya D. Howard
Licai Huang
Mingya Huang
Mo Huang
Zhihan Huang
Christophe E. Hunt
Joshua Daniel Ingram
Mohammad Reza Jahan-Parvar
Muhammad Jalaluddin
Soyeon Jeon
Yue Jia
Boyu Jiang
Yunhan Jiang
Kevin Chesis Juma
Eunhan Ka
James Keefe
Conor Aiden Kerr
Nelson Kinnersley
Priya Kohli
Chandra Kundu
Samuel Patrick Kurtz
James Ladzekpo
Wenjie Lan
Jennifer Lashley
Madison Layfield
Dylan Le
Truc Thanh Le
Junu Lee
Seunghyun Lee
Songha Lee
Stephanie A. Lehky
Cynthia Leng
Dayi Li
Fan Li
Lei Li
Xinwei Li
Yuhan Li
Biyonka Liang
Habte Tadesse Likassa
Han Liu
Jiacheng Liu
Jialing Liu
Lili Liu
Qing Liu
Ryan D. Loftis
Sandra Sinisi Lovell
Yuhao Luo
Maisha Maliha
Saida Mamedova
Yuchen Mao
Jeff Masten
Gina L. Mazza
Daniel J. McDonald
Gina Pugliano McKernan
Odilo Mdimi
Rachel Mills
Mehrdad Mohammadi
Ashish Mohan
Ayush Mohanty
Mira Mohsen
Audrey Moyer
Abdulrahman Mubarak
Manuel M. Müller
Dillon Murphy
Padde Musa
Nomagugu Tanyangadzei Ndlovu
John M. Neuhaus
Ella Nguyen
Huy Nguyen
Adrian Novio
Michael Arthur Ofori
Deborah Okunola
Damilare Olutimehin
Gifty Osei
Oluwasogo Paul Oyinloye
Subhadip Pal
Md Mizanur Rahaman
John Reid
Leonardo Ricciardi
Brandan Rosa
Jeanne Ruane
Roshni Sahoo
Loriann Salazar
Abdulwajeed Salisu
Marko Samara
Vishal Sarsani
Jennifer Sayed
Benjamin Schiffer
Kayla Scott Mcdowell
Heta H. Shah
Mostafa Shams
Tianyu Shen
Jiaxin Shi
Sam Shi-Jun
Vishwesh Ravi Shrimali
Mehrnaz Siavoshi
Rebecca Silva
Ralitsa Simeonova-Ganeva
Erica Spada
Bharath Sriperumbudur

Murray M. Stokely
Yanzi Sun
Yuran Sun
April D. Sykes
Phil Van-Lane
Letha Varughese
Matthew Voss
Minjie Wang
Yifeng Wang
Indrajith K. Wasala Mudiyanselage
Andrew Watkins
Raymond Wayesu
Liner Xiang
Yuhan Xie
Ke Xu
Bin Yang
Alex A. Young
Zhaoxia Yu
Chi Phone Yum
Shalima Zalsha
Emily Zhang
Manni Zhang
William Zhang
Yuan Zhang
Boxin Zhao
Wenjun Zheng
Xuwen Zhu
Jungang Zou ■

New Member Spotlight: SARA NEEQUAYE

This month, we spotlight new member Sara Neequaye, who answered the following questions so we could get to know her better:

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

Statistics allowed me to see the direct application of math. I was unsatisfied with taking college courses in calculus, since it wasn't clear to me how those skills would apply to my everyday life. I became interested in learning statistics and figured it would pair well with my public health interests.

Sara Neequaye

What do you consider your dream job?

In the field of public health, I would love to work in an environment in which I can have a healthy balance between people-facing and internal operations. I would also love to travel some days and have flexible working hours.

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

Understanding data science and/or statistics helps me make informed decisions and filter mis/disinformation in my consumption of media and/or news.

Is there a particular group of statisticians you would like to reach out to you (e.g., from a section, interest group, chapter, committee)?

- Committee on Women in Statistics
- Committee on Minorities in Statistics
- Statistics Without Borders

What is your favorite hobby?

Photography.

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

I love playing Just Dance.

Celebrating BLACK HISTORY MONTH

To honor Black History Month, we highlight members of the Black/African American community who have significantly affected the statistics field through their roles as mentors, educators, and entrepreneurs. Explore their stories to discover how they began their journeys, achieved their milestones, and established their careers.

Kaleab Z. Abebe

Affiliation: University of Pittsburgh School of Medicine

Kaleab Abebe's journey to becoming a tenured professor in biostatistics at the University of Pittsburgh began in the small town of Goshen, Indiana. A natural talent for math led him to Goshen College, where he majored in math without a clear career path. Eventually, he discovered the demand for applied statisticians and that realization propelled him into a master's program at the University of Pittsburgh. Encouraged by faculty collaborations in clinical trials, he pursued a PhD, leading to his current role as director of the Center for Biostatistics and Qualitative Methodology, where he mentors future biostatistics leaders.

Adeniyi Adewale

Affiliation: Alcon

Born in Nigeria, Niyi Adewale aspired to become a medical doctor, engineer, or lawyer—professions he equated with success. His love for mathematics initially steered him toward engineering, but setbacks led him to pursue his true passion: mathematics. He went on to graduate with honors, embracing the path that would define his future. Seeking real-world applications, Adewale pursued graduate studies in Canada and, with a mentor's advice, transitioned into statistics. For 17 years, he thrived in the biopharmaceutical industry, shaping clinical strategies to improve lives. Now at Alcon, he leads a statistics group while mentoring others. Driven by resilience, curiosity, and a desire to give back, Adewale's journey redefined success through meaningful, data-driven impact.

Benedict Anchang

Affiliation: NIH/NIEHS/NCI

Benedict Anchang's trek from Cameroon to the National Institutes of Health is a testament to resilience. Growing up as an anglophone in a predominantly francophone country, he found solace in mathematics, a passion his mother encouraged until her passing when Anchang was just 18. Her wish for him to pursue math and science fueled his drive to excel.

After earning a Bachelor of Science in mathematics from Cameroon's University of Buea, Anchang sought opportunities abroad, earning advanced degrees in biostatistics and bioinformatics in Belgium and Germany. At Stanford, he advanced cancer systems biology research, ultimately becoming a Stadtman investigator and distinguished scholar at NIH, where he leads groundbreaking work in personalized medicine.

Portia Exum

Affiliation: SAS

Portia Exum's path to becoming a software development manager at SAS started in Newark, New Jersey, where her love for math was sparked in the first grade as she watched her father solve algebra problems. This passion grew throughout her education, leading to a bachelor's in mathematics/statistics and economics from Smith College and a master's in statistics from NC State University.

Exum's career at SAS spans more than a decade. She has blended technical excellence in software research and development with leadership in diversity and inclusion. As co-founder of the Black Initiatives Group and a recipient of the CEO Award of Excellence, Exum champions innovation, mentorship, and equity, inspiring future generations in technology and statistics.

Musie S. Ghebremichael

Affiliation: Harvard Medical School

Musie S. Ghebremichael's love for mathematics and medicine started early and propelled him to earn his bachelor's degree in mathematics in his home country of Eritrea. Eventually, he moved to the states to pursue graduate work: a PhD in statistics from Rice University and a postdoctoral fellowship at Yale University. Today, he is an associate professor of biostatistics at Harvard Medical School, an associate investigator at Massachusetts General Hospital, an associate director of the Harvard Center for AIDS Research biostatistics and bioinformatics core, and director of biostatistics/database core at the Ragon Institute, Massachusetts Institute of Technology, and Harvard.

Ben Hansen

Affiliation: University of Michigan

Growing up in Berkeley and Oakland, California, Ben Hansen was surrounded by inspiration and possibility. Drawn to the beauty of mathematics and the depth of philosophy, he enrolled in UC Berkeley's Group in Logic and Methodology of Science. While logic was his primary focus, Hansen's path began to shift when he took probability courses from Ani Adhikari and Jim Pitman. When he realized he could do more as a statistician, he changed his trajectory and reached out to David Blackwell, who offered him guidance and encouragement. Kjell Doksum, and Leon Henkin also provided invaluable support. As Hansen transitioned from student to faculty member—first during a postdoctoral fellowship at the University of Pennsylvania and later at the University of Michigan—he carried forward the invaluable lessons imparted by his mentors, striving to emulate their example in his own work and teaching.

Jacqueline Hicks

Affiliation: Boston University School of Public Health

Jacqueline Hicks's journey into biostatistics began in Livonia, Michigan, where her family of engineers instilled a deep appreciation for math and science. While excelling in college math, it was a course in mathematical biology that inspired her career path. When she was earning a master's degree at The George Washington University, she served as a teaching assistant and discovered she also had a passion for teaching. Jacqueline pursued a PhD from Boston University, focusing on statistical genetics and health disparities. Now a dedicated educator and mentor, she collaborates on groundbreaking research into structural racism's impact on health. Her proudest achievements include inspiring students and building a loving family.

Monica Jackson

Affiliation: American University

Born in Kansas City, Missouri, Monica Christine Jackson grew up in a joyful, game-filled home where creativity and math intertwined. With siblings who coded computer games, her love for math sparked early. Bored and unchallenged by middle school math, Jackson transferred to a private prep school, where her passion once again flourished. At Clark Atlanta University, she pursued mathematics, later earning a PhD focused on spatial statistics and disease surveillance. Jackson's career flourished as a statistician, author, mentor, and leader, and she inspired students through programs such as SPIRAL. Yet, her proudest moments are those spent with family and friends, who celebrate her successes and lift her up when needed.

Tiffany M. Kollah

Affiliation: The University of North Carolina

Tiffany Kollah, a Pittsburgh native and daughter of Kenyan immigrants, has forged a remarkable path in public health and data science. With a passion for mental health statistics and increasing diversity in clinical trials, she combines her expertise in research to benefit public health. Overcoming significant adversities, including an assault during her studies at Louisiana State University, Kollah transferred to North Carolina State's applied statistics and data management program, where she continues to excel. Now contributing to research at The University of North Carolina's Department of Neurology, her journey exemplifies resilience, determination, and the power of perseverance in achieving one's goals.

Isaac Nuamah

Affiliation: Johnson & Johnson Innovative Medicine

Isaac Nuamah's journey from Kumasi, Ghana, to becoming a senior director at Johnson & Johnson exemplifies a lifelong dedication to biostatistics and public health. Drawn to applied mathematics, he pursued a degree in statistics from the University of Ghana and later specialized in biostatistics at McMaster University and Case Western Reserve University. With 25 years in the pharmaceutical industry, Nuamah now leads statistical strategies for medical affairs at J&J, advancing innovative approaches to enhance patient outcomes. A committed advocate for diversity, he has served in numerous ASA leadership roles, mentoring underrepresented groups and championing equity in the statistical profession.

Sandra Safo

Affiliation: University of Minnesota

Sandra Safo's journey from Ghana to a career in statistics is a tribute to her love of mathematics and problem-solving. Initially drawn to combining math and finance, her path shifted after she discovered data analysis during her undergraduate studies. An internship at Allstate Insurance introduced her to real-world applications of big data, sparking her passion for statistics and leading her to pursue a PhD. Sandra now develops innovative statistical and machine learning methods to advance health care research and enjoys mentoring students, finding fulfillment in helping others grow and succeed. Her work reflects her drive to make a meaningful impact in both research and education.

Carmen D. Tekwe

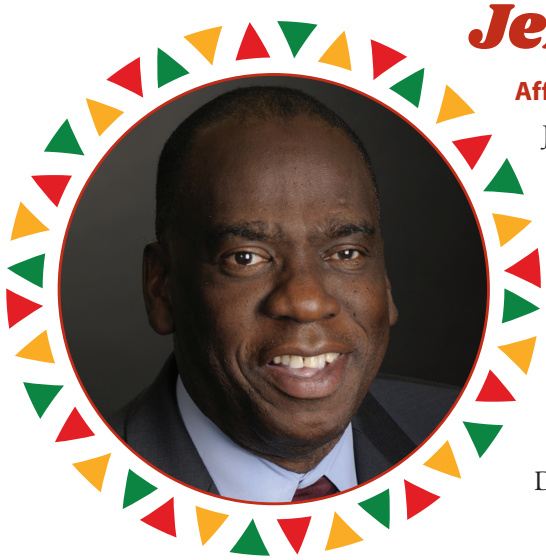
Affiliation: Indiana University School of Public Health

Carmen Tekwe's path to biostatistics was inspired by her grandfather's dedication as a medical doctor and her parents' academic pursuits in Nigeria. Initially aiming to follow in her grandfather's footsteps, Carmen discovered her passion for statistics and its applications in medicine and public health. With a PhD in biostatistics, her work focuses on understanding how individuals from diverse backgrounds respond to health interventions. A strong advocate for diversity, she builds collaborative research teams and mentors individuals from underrepresented communities. Carmen's achievements, including securing NIH funding, highlight her commitment to improving public health and giving back to global communities.

Sharifa Z. Williams

Affiliation: Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey

Sharifa Williams, born in Jamaica, began her journey to becoming a biostatistician with a pivotal high school moment: extra math lessons from a passionate teacher, who transformed her struggles into success, igniting a lifelong love for mathematics. After earning her bachelor's in economics and mathematics from Rutgers University, she pursued advanced degrees at Columbia University's Mailman School of Public Health. Today, as an assistant professor and former research scientist, William's examines health inequities, racism, and resilience, while advancing statistical methodologies. A devoted mentor, she finds joy in guiding students and colleagues, seeing their achievements as among her greatest professional rewards.



Jeffrey R. Wilson

Affiliation: Arizona State University

Jeffrey Wilson, a professor of statistics and biostatistics at Arizona State University, combines his Trinidadian roots with a passion for using data to address societal challenges. His career began at the University of the West Indies and continued at Iowa State University, where he specialized in statistical modeling and binary data. Since then, he has authored several textbooks including Modeling Correlated Binary Responses and Statistical Analytics for Health Data Science with SAS and R. Wilson's research spans health data, public policy, and correlated binary responses. A leader in inclusive excellence, he also mentors underrepresented students and advances equity through initiatives like ASU's LIFT program. His contributions were recognized with the 2024 Dr. Martin Luther King Jr. Faculty Service-Leadership Award. ■

Fostering Diversity in Biostatistics Workshop Creates Lasting Opportunities

Scarlett L. Bellamy

The Fostering Diversity in Biostatistics Workshop introduces historically under-represented undergraduate students to biostatistics and offers networking opportunities, mentoring (peer and near-peer), and professional development opportunities to graduate students.

Quantitatively inclined undergraduates are recruited from historically Black colleges and universities, high-Hispanic-enrollment institutions, and Native American tribal colleges. Historically underrepresented minorities are also recruited from predominantly white institutions. In addition, workshop participants include the following:

- Graduate students and postdocs from (bio)statistics programs
- Undergraduate faculty members from historically Black colleges and universities, high-Hispanic-enrollment institutions, and Native American tribal colleges to serve as advisers
- Faculty from graduate (bio)statistics or related programs
- Professional biostatisticians (MS and PhD) from industry and government agencies
- High school students and faculty

Through a series of interactive sessions—including roundtable discussions and presentations—the workshop promotes discussions about the experiences and expectations of graduate students through the lens of being underrepresented minorities enrolled in advanced biostatistics degree programs; explores opportunities for longer-term, in-depth exposure to biostatistics (e.g., undergraduate summer programs); encourages discussion of career opportunities for MS and PhD biostatisticians; and encourages and facilitates networking among all participants, regardless of their professional status.

Common Ground and Shared Interests

Louise Ryan and Amita Manatunga collaborated more than 25 years ago to found the Fostering Diversity in Biostatistics Workshop. According to Ryan, she found herself looking for opportunities to connect with others interested in addressing diversity in the biostatistics field after initiating an undergraduate summer program in biostatistics with the goal of addressing diversity at the Harvard School of Public Health in the mid-1990s.

Amita Manatunga

Louise Ryan

Ryan discovered Manatunga at Emory University had similar aspirations. According to Manatunga, Ryan was invited to Emory as a seminar speaker in 1988. During her visit, she expressed interest in meeting with Nagambal Shah, a faculty member in the mathematics department at nearby Spelman College who had a shared interest in presenting viable graduate training opportunities to math majors at Spelman, Morehouse College, and Clark Atlanta University. At the same time, Manatunga recognized the lack of adequate representation of minority students in National Institutes of Health training grants and became interested in actively recruiting them to the graduate program at Emory. Given their shared interests, Ryan invited Manatunga to go to Spelman with her to meet Shah and some of her students.

Baby Steps and Testing the Waters

The Eastern North American Region (ENAR) of the International Biometric Society held its conference in Atlanta in 1999, when Ryan was president-elect and Manatunga was chair of the local organizing committee. It was there that a small 'pre-workshop' meeting was convened, primarily attended by Shah and a few of her students. They discussed shared challenges, mostly related to recruiting and retaining diverse students into biostatistics graduate programs, and the idea of the ENAR diversity workshop grew. Leveraging her upcoming ENAR presidency, Ryan suggested holding a formal diversity workshop at ENAR in 2000, and Manatunga agreed to spearhead the program.

Similarly, the summer program at Harvard started to gain momentum by the late 1990s and the biostatistics department began recruiting more underrepresented minority graduate students. Individually, Ryan and Manatunga were encouraging students from underrepresented backgrounds to be active in ENAR by presenting their work, networking, and taking short courses, but they recognized it was important to expand how they supported these students by providing an environment

in which ideas and experiences could be discussed safely. This was the context in which the Fostering Diversity in Biostatistics Workshop was created. The foundational goals of the workshop were the following:

- Support minority students starting to attend ENAR
- Raise awareness of diversity issues in general
- Create and foster a community of like-minded people committed to increasing diversity in biostatistics
- Generate new ideas related to how to foster diversity in ENAR and the field more generally

The first Fostering Diversity in Biostatistics Workshop was held in 2000 in Chicago with fewer than 20 participants. Ryan delivered the introductory address and William Jenkins—known for his public health advocacy and for speaking out against the now infamous Tuskegee syphilis experiment—was the keynote speaker. His remarks highlighted the disparities in life expectancy for Black and white men and women. Additionally, Manatunga moderated a student panel that included Cassandra Arroyo, DeMarc Hickson, Reneé Moore, Dionne Price, Kevin Roberts, and Timothy Thornton.

Workshop attendees included early-career professionals and graduate students such as DuBois Bowman, Scarlett Bellamy, Knashawn Morales, Dionne Price, DeJuran Richardson, and Stuart Lipsitz. In addition to discussing their rigorous academic programs, students shared difficult experiences we now attribute to broad themes of inclusion and belonging. Thus, the workshop became a place for students from underrepresented backgrounds to both give and receive support and navigate their own graduate experiences.

There was no workshop in 2001 however, the second—organized jointly by Ryan and Manatunga—convened with support from Keith Soper of Merck, the first pharmaceutical company to contribute to the workshop, and partial funding from both Harvard and Emory's biostatistics departments. Price, a then-recent graduate, moderated the student panel.

In 2003, a now disbanded diversity caucus—attended by Manatunga, Ryan, Bowman, Lance Waller, Bellamy, Price, Monica Jackson, Soper, Kim Sellers, Cheryl Jones, and Tom Ten Have—was established to institutionalize ENAR's diversity efforts and provide the primary organizational structure for the annual workshop. The stated goals of the caucus were the following:

- Increase the representation of minority groups in the biostatistics field by encouraging members of minority groups to enter it
- Increase awareness of common professional interests of minorities in the biostatistics field
- Increase awareness of common issues of concern among underrepresented minorities in biostatistics
- Promote the status of minorities already in the biostatistics profession
- Establish contact and share ideas with other professional groups having similar goals
- Promote the statistical development of diverse populations in biostatistics

While the caucus eventually dissolved, the workshop's organizational structure evolved into a co-chair structure. The chairs are responsible for organizing a successful event, and they have continued for more than 25 years with many of the same goals.

Passing the Baton: Transitioning to the Next Generation

Having recently graduated from the doctoral program at Harvard with Ryan as her dissertation adviser, Bellamy submitted the first of two successful R13 grant proposals to the National Institute of General Medical Science to secure workshop funding. She transitioned from being a student attendee of the workshop into a leader, serving for several years as co-chair and assuming the responsibility of organizing successful workshops.

The pattern of workshop participants who transition to leaders has persisted. Manatunga noted she continues to be surprised by how workshop participants organically evolve into the next generation of workshop leaders. Over the past 25 years, this pattern has allowed the workshop to run smoothly and meet the needs of students.

Reflections and Legacy

Manatunga believes the workshop's success stems from the original vision to organize a workshop centered on a shared goal—diversity in biostatistics.

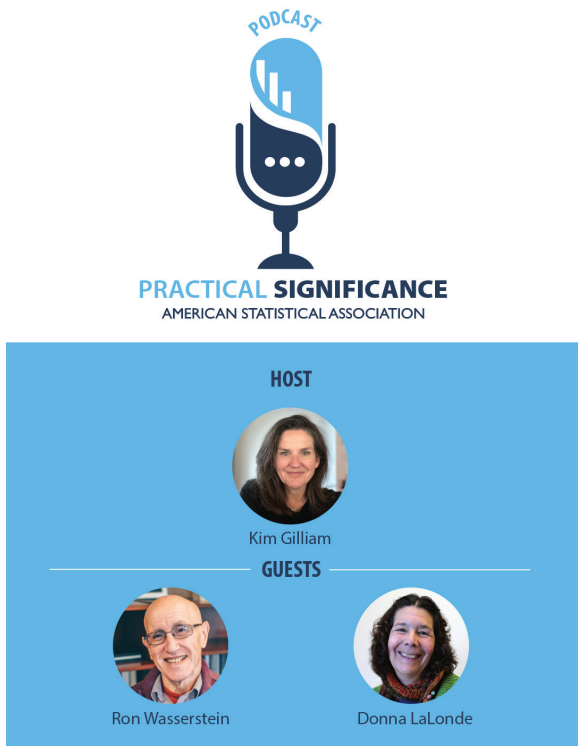
Participants who were introduced to the workshop as students have not only graduated with advanced degrees, but they have also taken on leadership roles for professional organizations, including three ENAR presidents—Bowman, Bellamy, and Moore—and one ASA president: Price.

Manatunga noted she is incredibly proud to have cofounded this workshop with Ryan, the visionary, architect, and driving force behind it. Together with Manatunga, Ryan's efforts have strengthened and diversified the field, creating lasting opportunities for future biostatisticians.

To learn more about the Fostering Diversity in Biostatistics Workshop, visit *www.enar.org/meetings/FosteringDiversity.* ■

Practical Significance Part II—Inquiring Minds: ASA Questions and Answers from Donna and Ron

Practical Significance producer Kim Gilliam recently conducted the following interview with Donna LaLonde, ASA associate executive director, and Ron Wasserstein, ASA executive director, turning the tables on her ASA colleagues and podcast cohosts. Armed with insider knowledge and member questions about the ASA, Gilliam led a discussion equally informative and entertaining—fun questions but serious answers about the ASA's strategic plan, recent initiatives, member communication, and the incredible ASA community that keeps the association moving forward.



Kim Gilliam: Donna and Ron, tell us about your day jobs.

Donna LaLonde: I came to the ASA in 2015, after being a longtime academic—I used to tell folks I had been in school my entire life. My day job at the ASA is to make sure our members—all the amazing volunteers—have the resources they need to keep the ASA community vibrant. I work with the sections, chapters, committees, and—of course—the ASA presidents who have amazing ideas about initiatives. I often say I would do this job even if I wasn't paid. It's my responsibility and pleasure to help make progress on what is important to the presidents and therefore important to the ASA.

Ron Wasserstein: I've had the privilege of serving as the ASA executive director since 2007. There is nothing I would rather be doing. I spent many years in higher education and enjoyed that. But I feel fortunate to have come over to my leadership role in the ASA. I'm also very fortunate to have worked with Donna in my previous job and—several years ago—to have been able to steal her away and bring her over to the ASA.

As for what I do, in many respects, it's like being the CEO of a business. We have a specific kind of business. A nonprofit professional association exists to make things better for our members; to advance the profession; and to grow our members through meetings, journals, and professional development. I'm grateful for those members who—from time to time—join us on this podcast.

Kim Gilliam: Ron, many members know about the mission of the ASA but may be less aware of the strategic plan that provides direction. What are some of the ASA's strategic goals?

Ron Wasserstein: It is very important that members know we have a strategic plan. The mission of the association is to promote the practice and profession of statistics, and we do this in many ways. Those efforts are driven by the ASA strategic plan, which helps set the direction of the organization in terms of how we focus our activities, where we devote our resources—financially and otherwise.

The plan is organized into three themes: enhancing the diversity and breadth of our profession; increasing the visibility of our profession; and ensuring the future of our profession. When you get a chance, take a look at the ASA strategic plan (*www.amstat.org/about-asa/governance/strategic-plan*).

Kim Gilliam: Donna, if the ASA were a superhero, what would its superpower be? How does the ASA use that power for good?

Donna LaLonde: I believe the ASA superpower (or powers), if you will allow me, are community, service, and innovation. So, in terms of community, I'll focus on the Women in Statistics and Data Science Conference as an example. Friendships are formed almost instantaneously during this event. ASA members come together, and they are excited, connecting with one another—there's such a vibe wherever they are.

It just reinforces for me that the ASA is an amazing community in all senses of that word—willing to support each other and jump in when needed. So, "community" is definitely a superpower.

"Service" is the one I see as a staff member, because I have the opportunity to work with the committees, sections, and chapters, and I just see how generous really busy people are with their time. They are committed to the association, but to the profession, as well.

And "innovation." I encourage you to attend a conference, watch the plenary lectures from JSM—which are available to everyone—or read a journal article. You will see we are a really smart bunch who contribute our intellectual and innovative capacity to advance science.

I'll highlight two:

- *Telling Our Stories*, the inaugural video, which featured Maria Cuellar. If you haven't seen it, please do watch it (*https://tinyurl.com/34m2t93j*). It shows how not only do we advance science, but we serve the public good, as well. Community, service, and innovation!

- We're also thrilled to launch the Dionne Price Public Lecture Series. We sadly lost Dionne far too early but will continue to honor her legacy with a public lecture series. We're obviously very pleased to pay tribute to Dionne in this way, and in doing so, the lecture series will also highlight the amazing contributions ASA members make to the public good.

Community, service, and innovation—these are the ASA's superpowers.

Kim Gilliam: Donna, on a scale of carrier pigeon to telepathy, how would you rate the ASA's communications method?

Donna LaLonde: I would love to say telepathy, but most days it feels like a carrier pigeon. We put a lot of energy into communication, and I believe we have some fantastic ways in which we do communicate. I'm going to name a few and encourage people not familiar with these to look.

One is ASA Connect, our online community that goes to all members. You will see announcements of all types in the ASA community, both from ASA staff and other members of the ASA. We also send out our monthly member e-newsletter and, of course, there's *Amstat News*, which is an excellent way for us to share not only things that are important and are on our radar, but it's also a way for members to share things that are important to them.

We've upped our game on LinkedIn to do outreach to the ASA community and broader community. We realize there's not a "one size fits all" in terms of communication, and this is where we struggle. We continue to think creatively about how we communicate, what makes the most sense for the audience—and here I would definitely give a "call to action" to our listeners: let us know what we are missing. Are we sending too many emails? Not enough emails? We've talked about text messaging. Should we introduce text messaging? So, help us move from carrier pigeon to telepathy.

Kim Gilliam: Ron, on a typical day, how many cups of coffee does it take to fuel the ASA's productivity? Are we single-handedly keeping Starbucks in business?

Ron Wasserstein: We are no doubt powered by a certain amount of caffeine! But your question serves as a reminder of something Donna addressed, which is that when we talk about the ASA, we're talking about many people, especially when it comes to how the ASA gets its business done.

We have 31 people employed at the American Statistical Association, most of whom are located here in the greater Washington, DC, area. But several of our staff members work remotely from various places around the country. ASA staff does a lot. But what really makes the association go are all our volunteers who serve the ASA in remarkable ways.

We have individuals who serve on committees or as chapter and section officers or lead outreach groups. Volunteers edit and review journals and help by serving on meeting planning committees and more. I did a calculation a while back and upwards of 1,500 people volunteer in some capacity throughout the year; that is truly remarkable. We have a wealth of individuals willing to sacrifice their time and use their talent to support the ASA.

Donna LaLonde: We really are incredibly grateful for all the contributions of our volunteers, and I want to say, "thank you," to everyone who supports our mission. We are really blessed to have wonderful volunteers.

Kim Gilliam: Ron, what are some of the challenges facing the ASA?

Ron Wasserstein: We are fortunate that we are in such a good place on many things so that these challenges, which I will outline, are more easily turned into opportunities than they might be. Our biggest challenge is that it costs more to do just about everything in terms of services and goods.

The ASA is a nonprofit organization, but we need to earn enough revenue from the things we do to be able to pay for all the things we want to do, need to do, and are doing that don't provide revenue. I'll just mention two things.

One may be nearest to my heart, and I'm sure I'm not out of turn when I say nearest to Donna's heart, as well, which is supporting education in statistics at all levels. I mentioned earlier that one of our themes is ensuring the future of the profession. We do that in no small part by promoting statistics education at every level—from K–12 all the way through graduate school—and it takes money.

We also advocate for the profession, and that also is not free. But the things we do that earn money such as meetings, publications, and advertising make it possible to invest in our membership, our communities, and our outreach. However, the revenue has tended to drop just at the time when costs are going up.

We're not facing a financial crisis at the ASA. We have enough money in savings, essentially, to power what we do in addition to the money we earn. But in the long run, maybe the not-too-distant run, we need to face up to those challenges and find ways to better increase our revenue.

Over the coming months and year, you will be hearing more about that from both of us and our elected leadership.

I'll add that it seems like something is always trying to swallow up statistics in some way. Data science and artificial intelligence are the two things that stand out most prominently. Those are important areas of work, and it's imperative that—as a community, a profession, and an association—we are at the forefront, ensuring our expertise and the voice of statisticians remain present in data science and AI. So, we continue to work with colleagues all over the world to ensure we're well-positioned for the future.

We have strong resources, a good endowment, and, again, I cannot overemphasize this: We have members who are willing to work hard to promote our profession and build up our society. When you have that kind of resource, you always feel like the future is bright.

Donna LaLonde: Of course, I want to give a plus-one to education. Our amazing community puts so much energy into education—and I want to give a shout-out to two groups working really hard right now. One is the working group revising the College GAISE report and the other is the working group working on the next version of the *Statistical Education of Teachers* (*SET*) *Report*.

Kim Gilliam: If you could give one piece of advice to early-career members, what would it be?

Donna LaLonde: I would say present at an ASA conference, and that could be a virtual conference or an in-person conference. What you learn by putting yourself and your work out there is just amazing—and there is just no experience that matches that. Not only will you learn a lot by making that presentation, but you will make a lot of new friends. So, find a way to make a presentation either in person or virtually at an ASA event!

Ron Wasserstein: I can't top that advice, but I will tag onto it. *Connect, connect, connect.* You can't have too many connections. I say that realizing some people are more outgoing than others. You don't have to be outgoing; you just have to go out. You have to be where things are happening and give yourself the opportunity to meet others interested in the same things as you are. **Fun fact:** The ASA has all kinds of opportunities to help you find ways to connect. ■

NSF CORNER

NSF Funds Digital Twins, AI, ML Research

To strengthen the connection between the statistical community and National Science Foundation (NSF), we continue the series introduced in the May 2023 issue that poses questions to NSF program officers and awardees. This month, we interview Snigdhansu (Ansu) Chatterjee, whose team was awarded a grant to study neurodegenerative diseases through a new program: Foundations for Digital Twins as Catalyzers of Biomedical Technological Innovation (FDT-BioTech), which is a partnership between NSF, the National Institutes of Health, and the US Food and Drug Administration. If you have suggestions for future Q&As, with either awardees or NSF program officers, send them to ASA Director of Science Policy Steve Pierson at spierson@amstat.org.

Snigdhansu Chatterjee was awarded a grant to study neurodegenerative diseases using digital twin modeling. Neurodegenerative diseases (e.g., Alzheimer's disease, Parkinson's disease, multiple sclerosis) impact millions of people and result in hundreds of thousands of deaths annually. Digital twin modeling might yield new insights into these diseases and revolutionize their treatment and prevention.

As the principal investigator, Chatterjee will address multiple research problems at the interface of digital twin modeling using AI techniques and substantial amounts of biomedical data on neurodegenerative diseases. The data science topics broadly encompass manifold learning; feature discovery and selection; data assimilation; conditional statistical inference; and verification, validation, and uncertainty quantification of digital twins. He will also address the ethical, legal, and social implications of using digital twin models in the context of health care.

Snigdhansu (Ansu) Chatterjee is the Sinha Ennovate Endowed Chair Professor in the department of mathematics and statistics at the University of Maryland Baltimore County. His research interests include theoretical foundations and explainability of machine learning and artificial intelligence; digital twins; representativeness, fairness, and ethics in artificial intelligence-machine learning (AI-ML) problems; Bayesian and other conditional inferential techniques; and applications of data science techniques in domains such as surveys and small area problems, precision medicine, and climate change.

Chatterjee's interdisciplinary, multi-institution team consists of five investigators, a post-doc, and several students, including the following:

- Animikh Biswas (UMBC, Mathematics and Statistics)
- Karuna Joshi (UMBC, Information Systems)
- Christophe Lenglet (University of Minnesota, Radiology)
- Asim Dey (Texas Tech, Mathematics and Statistics)

The grant amount is just short of $1 million, which was the budgetary cap for grants from this solicitation.

With your grant funded under an NSF Division of Mathematical Science solicitation started in spring 2024, did you approach the proposal writing differently than you might have approached a proposal to an ongoing solicitation?

Our project description was different from the usual ones, since the solicitation had several new elements involving collaboration with health care regulation and research agencies, as well as ethical AI and related issues. An interdisciplinary focus was also required; we had to address open challenges in biomedical studies of importance to multiple health care agencies and address foundational aspects of digital twins.

Fortunately, I have been interested in interdisciplinary research on data science + X, where X is one of several topics in natural or social sciences, for quite some time. So, it was fun to write a proposal combining multiple topics I am excited about.

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

I suggest the actual research project is something you are excited about and the project description reflects your excitement yet conveys the necessary scientific information. It must be credible in terms of what is promised, not just incremental or routine work. Pay attention to the broader impacts of what you propose. Integrate the parts of the project in a cohesive narrative; program managers and grant reviewers are experts and can easily identify proposals that have not been thought out carefully.

I am a statistician. Why should I be interested in digital twins?

Engineering and other disciplines have used digital twins for the last couple of decades, although this is a relatively new topic in the statistics and data science community. There is tremendous scope for new statistics and machine learning research in the context of digital twins and the potential to apply such models to many practical problems. We should be on board with interesting developments in other disciplines. ■

STAT*tr@k*

Being a Statistician in the Age of Data Science: Fleeting Advice from a Mid-Career, Card-Carrying Statistician

Nick Beyler is the senior director of survey analytics, logistics, and techniques at Fors Marsh. He holds a doctorate and master's degree in statistics from Iowa State University and a bachelor's degree in mathematics and economics from Lawrence University. He also serves as a board member for the Wisconsin Chapter of the American Statistical Association.

I love being a statistician. I'm proud to have a career in such an important and highly regarded profession. When I first entered the job market, I was excited to take on one of the hottest jobs out there, according to JobsRated.com. I was constantly saying to friends and family, "That's what I do! Aren't you impressed?"

Then about 10–12 years ago, I blinked and data science—not statistics—was the sexy profession, according to *Harvard Business Review*. And the *US Bureau of Labor Statistics Occupational Outlook Handbook* says it is projected to continue its dominance. Friends and family often comment that statistics doesn't seem to be the shiny new object it once was—ouch!

They're not wrong. In many ways, data science has engulfed statistics. When you search for "statistics" on job boards, you may find a few roles with "statistician" in the title, but the majority are data scientist positions. When you search for graduate programs in "statistics," programs in data science will inevitably pop up. It wasn't like this a decade ago. A November 2024 article from this very magazine, "Data Science, Analytics Degrees See Explosive Growth," shows just how massive the growth in data science has become.

What's going on? Are statisticians no longer relevant or in demand? Have they been replaced by data scientists? Do companies and research institutions no longer care about using fundamental statistical theory and methods to solve complex problems?

These are rhetorical questions, of course, with a dash of cynicism sprinkled in for good measure. My take: Statisticians are still relevant, and there are actually *more* opportunities for statisticians to make an impact and build a meaningful career than there were five, 10, or even 15 years ago. Statisticians—especially those just entering the job market or early in their career—just have to know how to adapt. And I have some suggestions.

A few disclaimers before I get on my soapbox:

- First, my advice ("advice" may be the wrong word; this will be more like a hodgepodge of stories pieced together with some degree of fluidity) is framed largely by how to navigate *being a statistician in a data scientist's world.* This includes how to thrive, grow, and make lasting impressions in a world in which we are engaging—and sometimes competing—with colleagues who do not consider themselves statisticians but *do* consider themselves knowledgeable in advanced statistical concepts and methods.

- Second, I don't pretend there is a single tried-and-true approach to navigating a career as a statistician. I have a unique perspective shaped by nearly a decade as a full-time student, followed by 15 years in the professional consulting services industry, with the last five focused on managing other statisticians, analysts, and programmers. I can't speak about the experience of being a statistician in academia, government, or the tech or pharmaceutical industries. I suspect (actually, I'm 99% confident) my advice will not be applicable to all early-career statisticians, so please take it with a grain of salt.

- Finally, I know some—maybe even many—will disagree with my advice. I can already picture other mid-career statisticians reading this and rolling their eyes or shouting at the page, "What is this guy talking about?" That's fine. If there are other stories out there, let's hear them. More (quality) data is always better for making inferences, right?

Suggestion 1: Take pride in being a statistician—just do it with humility.

I take pride in being trained as a statistician and being a practitioner of statistics. I still remember when I first truly understood the power of the central limit theorem (mind blown). I slogged through courses in measure theory and probability theory (sigma algebras, anyone?), pushing through because I knew it was all foundational to statistics. I thought it was so cool I was taking classes taught by faculty who literally wrote the book on this or that statistical concept. I had a doctoral adviser who once crossed out an entire paragraph of my dissertation because I didn't accurately specify my model—par for the course, I thought, this will make me a better statistician (and writer) in the long run. I loved hearing stories from the statistical seminars hosted by the Iowa State University Department of Statistics about when hardcore frequentists would argue with up-and-coming Bayesians about where they got their prior distributions from. One such retort was apparently, "I made it up, just like you make up your likelihood function." I think they're still scouring Snedecor Hall for the microphone that was dropped after that one.

In my current role at Fors Marsh, I love contributing to impactful research, providing insights into optimal sample designs, suggesting more rigorous approaches to tackling problems effectively, and being a trusted partner among colleagues who respect what I bring to the table. And I love seeing other statisticians making their mark, adding critical value, and getting the praise and recognition they deserve.

Being a card-carrying statistician for so long has also taught me you shouldn't flaunt your statistical abilities or background. For example, don't act like you're smarter than someone else just because you know the difference between a *t*-test and *Z*-test. Treat the statistics field as a big tent and be open to other ways people think about statistics or find passion for it, even if you think they are misguided. You will have a more meaningful and fulfilling career as a statistician if you focus on building bridges and not talking down to or around peopl who aren't statisticians.

I personally like to make fun of statisticians any chance I can; it can be a good ice breaker. When an economist colleague asked if there really was a dance party during the Joint Statistical Meetings—as if it was crazy statisticians would be associated with a party, let alone one involving dancing—I didn't take offense. I chuckled and confirmed the rumor was true and said they should come see it for themselves. To kick off a meeting about selecting an optimal sample size for a study design, my favorite quip is, "Go with the biggest sample you can afford. Any other questions?" When someone asks about how statistics fits into training artificial intelligence (AI) models, I like to share the Scooby Doo "Let's see who this really is!" meme, which reveals the word "statistics" underneath the mask with "AI" written on it. My all-time favorite joke is the one about the three statisticians who go hunting—I'll let you Google that one.

Suggestion 2: It's OK not to know everything, but be sure you know something.

Undoubtedly, you will encounter someone during your career who thinks that because you are a statistician, you can immediately and accurately answer any kind of statistical question. This isn't unique to statistics. The other day, I asked my company's general counsel a question about a lawsuit I saw in the news, and he kindly reminded me he isn't an expert in all kinds of law.

It's OK to say "I don't know" when someone asks you a statistical question. Better yet, say, "I don't know, but let me look into it and get back to you." This will come across better than pretending you know something or trying to make something up that you think sounds right. Sure, after you say, "I don't know," you might get the occasional, "But aren't you a statistician? Shouldn't you know that?" My response to that is typically, "Yep, I am a statistician, but I have expertise in some areas of statistics and not much in others. So, I'll do some research and get back to you. By the way, have you heard the joke about the three statisticians who go hunting?"

Just be sure you know *something*. You are a statistician after all, and you can't say "I don't know" every time a statistical question comes your way (I learned this lesson the hard way during my master's thesis defense when I forgot the formula for a *t*-test statistic). Make sure you have a statistical topic, approach, or method you are passionate about and can speak to on a whim. One of mine is survey statistics—or, more precisely, sampling statistics. I have a handy elevator pitch about the different ways to select a sample from a population and what stratification, clustering, or multistage sampling buys (or costs) from a statistical power perspective. Have an elevator pitch—or two—in *your* back pocket!

Suggestion 3: Be a statistician who knows they sometimes need to be a data scientist.

I have lost my way at times being a statistician in the age of data science. I think it really hit me when I saw colleagues from my graduate program in statistics (including my spouse, whom I met in graduate school) touting data scientist job titles and promoting courses on data science methods such as regression and clustering. I thought, "Aren't those statistical methods? I thought you were all statisticians. What's going on? Is this a *Twilight Zone* episode?"

Then, it happened. I was pulled into a proposal for which one of the key positions required was a data scientist and I had the right educational background and experience to be bid in the role. I went along with it, begrudgingly, and we won the work—either because or in spite of my accolades as a *data scientist*. Had it happened? Had I joined the cohort of statisticians turned data scientists?

I probably hit peak 'freak out' during the spring of 2023. At my company's annual meeting, I presented a crash course on statistical methods and spent more time than I probably needed to reminding my colleagues that the awesome work Fors Marsh does involving data science is only possible because of statistics. I felt in some ways like the frequentist who screamed at the Bayesian, "Where'd you come up with that prior?!" during a statistical seminar in Ames, Iowa, many decades prior.

After my presentation, I was mingling with colleagues, including one I knew was a proud, card-carrying data scientist (probably just as proud as I am of being a statistician). During an awkward pause in the niceties, I said, "Sorry if my presentation earlier was harsh toward data scientists." She looked at me, clearly confused, and reassured me I hadn't said anything offensive. Data science, she pointed out, is a descendant of statistics—just with cooler toys to play with to solve problems. My freak out from earlier quickly subsided and I calmly replied, "Good point. … Want to collaborate on something?" ■

STATS4GOOD

Increasing Resiliency of Critically Important Data Sets: A D4G Imperative

One of my Data for Good heroes is David Riedman, founder of the K–12 School Shooting Database. Back in 2017, the Center for Homeland Defense and Security began the project to keep track of school shootings and other firearm incidents at schools in the United States. When funding ran out in 2022, Riedman kept this important database going on his own. Today, the project continues its mission as a 501(c)(3) not-for-profit organization.

Unfortunately, not all data-at-risk stories have happy endings like this one. Every year, important data resources needed by Data for Good researchers are in danger of going dark or, worse still, losing data quality relative to earlier data. Shifting political agendas can lead to funding changes, resulting in the reduction or even elimination of staff supporting critical data. Currently, with so many significant policy changes underway, I have identified the resiliency and hardening of important data sets as a top Data for Good priority in 2025.

Strengthening the data infrastructure supporting D4G initiatives takes many forms. Data from past successful projects needs to be preserved and made available for future use. Where data has been collected using paper forms and documents, digital copies are needed.

Riedman's work with the K–12 School Shooting Database provides an example of one type of data source perennially at risk: projects funded by federal, state, and local governments that cease once their goal has been met. In these cases, published papers remain but the data often goes dark, lost to future researchers.

COVID pandemic–era data is particularly at risk, even though preserving it is needed to address future pandemics. The outstanding effort by biostatisticians that produced an explosion of research during the pandemic must be followed up by preserving the data—and metadata!—for future use.

Data produced and curated by government agencies is also at risk due to changes in funding priorities and staff changes that can result. This has attracted media attention. For example, Darya Minovi of the Union of Concerned Scientists has written about multiple efforts to preserve data as a new administration

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 of Peace-Work, a data for good nongovernmental organization.

Getting Involved

In opportunities this month, February is a great time to start planning activities for Earth Day. Start by connecting with local organizations working in your area of environmental advocacy to host a hackathon. Get a sponsor to provide a site, then work with your partners to develop a data set to be shared with the hackathon teams, along with a specific task for them to accomplish. Finally, publicize your event—and be sure to include it on the ASA Community (*https://community.amstat.org/resources*)!

Also this month, the podcast *Stats + Stories*, hosted by John Bailer and Rosemary Pennington at Miami University, is joining the ASA's podcast lineup. For more than a decade, *Stats + Stories* has been telling the "statistics behind the stories and the stories behind the statistics." Follow them on LinkedIn (*www.linkedin.com/showcase/stats-stories*) to be notified when new episodes drop. You can also learn more about the podcast as it joins the ASA by checking out Episode 49 of the *Practical Significance* podcast (*https://magazine.amstat.org/podcast-2*).

takes over (see *https://tinyurl.com/488fy5e6*). Common concerns in media reports include data on the environment, climate change, and justice.

Hardening data infrastructure and building resiliency begins with identifying the data sets most needed, either in our own area or widespread D4G applications. For example, I have been maintaining a zipped archive of key demographic tables from the American Community Survey since the late twenty-teens. I have never needed to access the archive but it's there to support longitudinal demographic analysis if it is ever needed.

Coordinating data resiliency efforts with colleagues in our own research areas is important to avoid duplication of data sources while others go unarchived. Maintaining a copy in a space with backup support is essential. While small files can be archived in cloud spaces, this can become expensive for larger files. In this case, data tables can be divided across multiple colleagues or organizations.

Building data resiliency through identifying important data sets and archiving copies of the critical ones is an activity well-suited to the D4G community, as it mitigates the risk of potential deletion, damage, or discontinuation due to lack of support. It also provides an opportunity to connect with new collaborators and expand research teams with common interests in data for good! ■

STATISTICIAN'S VIEW

A Follow-Up to Gang Xie's Practicing Statistician's Plea

Jonathan Shuster

I wish to commend Professor Gang Xie for his courageous editorial, "A Practicing Statistician's Plea," that appeared recently in *Amstat News*. I concur with his plea and hope his advice is taken seriously by our profession. To paraphrase his directives, we should ideally make no assumptions in our analyses, and when we must, disclose any we make in the statistical considerations we put into our co-authorships. We should also use point and interval estimates of effect size and downplay the *P*-values. I would like to add the following three important caveats to this advice.

1. Avoid diagnostic testing for assumptions, especially if you would consider "changing horses in midstream" if you reject the assumptions. Whether or not you change horses, you would need to account for the impact of the diagnostic tests upon your point and interval estimates you ultimately obtain. Whether these tests passed or failed, you cannot legitimately ignore the fact that such testing was done. This is an unsolved dilemma. Jonathan Shuster, in his 2005 *Statistics in Medicine* article, "Diagnostics for Assumptions in Moderate to Large Simple Clinical Trials: Do They Really Help?," presents a compelling case of the dangers involved in diagnostic testing for assumptions. Failure to reject a null hypothesis on assumptions is an inconclusive result, not proof that they are correct.
2. Although point and interval estimates (or their Bayes counterparts) should be the driving force behind most analysis, civil law cases should clearly be based on hypothesis testing, not upon interval estimation. The verdict boils down to a yes/no decision on a case. A simple example might be the yet unproven allegation that driverless cars have more fatalities per year owned than other cars. The standard legal "presumption of innocence" is equivalent to a null hypothesis that driverless cars have the same (or lower) fatality rates per year owned as contemporary cars with strictly active drivers. The endpoint in a class-action civil lawsuit might be fatal accidents per year owned. The jury must be presented with the results of this hypothesis test, with a *P*-value for a verdict determined by precedents (often below 0.05 one-sided) rejecting the null hypothesis. If a decision is made against driverless cars, then estimation might be used to determine damages. But the verdict rests strictly upon hypothesis testing. It should be noted that, often, there is no statistical parameter, and yet hypothesis testing can work. One example appears in Shuster and Mark Handler's 2020 *European Polygraphy* article, "Trying an Accused Serial Sexual Harasser for Libel in a US Civil Court."
3. When designing large clinical trials of public health importance, we need to bear the above in mind and conduct "large simple randomized trials." Susan Ellenberg and Mary Foulkes provide excellent justification for this when dealing with the treatment of AIDS in their 1994 *Statistics in Medicine* article titled "The Utility of Large, Simple Trials in the Evaluation of AIDS Treatment Strategies."■

Final Call: Submit a Late-Breaking Session Proposal to Be on JSM Program

Alexandra M. Schmidt, McGill University

The 2025 Joint Statistical Meetings will take place in Nashville, Tennessee, from August 2–7. If you are not yet part of the program, there is still one opportunity for you to get involved.

The program has room to accommodate one to two late-breaking sessions. As the name suggests, these sessions allow coverage of breaking developments of keen public interest in which statistical issues are highly relevant. A late-breaking session must cover a technical, scientific, or policy-related topic that has arisen in the one-year period prior to JSM.

The competition for late-breaking sessions is open to any organization or member of a partner society. Proposals will be judged on statistical and scientific quality, novelty and timeliness of material, potential audience appeal, and completeness. Note that, according to the participant guidelines, you can present in a late-breaking session and another session.

Submitting a Proposal

Proposals for a late-breaking session should be submitted from February 6 to April 15 to JSM 2025 Program Chair Alexandra M. Schmidt via the online submission system. A proposal for a late-breaking session should contain the following information:

- The session title
- A session description, including a summary of its statistical and scientific content, an explanation of its timeliness, and comments on the specific audiences for which it will be of principal interest
- The format of the session (e.g., paper or panel session)
- Names of the session organizer; chair; and all speakers, panelists, and discussants
- Complete affiliation and contact information (mailing address, phone, fax, email) for organizer, chair, and all participants
- A title for each presentation (if a paper session)
- Web links to relevant technical reports, if applicable

As you prepare these items, note that all prospective session participants—including the chair, speakers/panelists, and discussants—should have agreed to participate in the session before the session proposal is submitted.

Visit the JSM website at *ww2.amstat.org/meetings/jsm/2025* for more information. ■

Annie T. Randall Innovator Award

The Annie T. Randall Innovator Award was established to recognize early-career statistical innovators across all job sectors with any level of educational attainment. The award was named in honor of Black female statistician Annie T. Randall for her pioneering career in government amid pervasive racial discrimination. Her story and legacy in statistics serve as inspiration for future generations of trailblazers. This award was established in 2020 by the ASA Biometrics Section and provides a $2,000 prize each year.

Annie T. Randall

Nominations

Self-nominations or nominations by someone other than the candidate are welcome. Individuals from underrepresented and historically excluded groups in statistics are encouraged to apply. Submissions are due by March 15 and should include the following:

- Candidate résumé or CV
- Candidate personal statement or nomination letter (1–2 pages)

For more information, visit *https://bit.ly/3P5xR9W.* ■

ASA Pride Scholarship

Nominations will be accepted for the ASA Pride Scholarship until March 31. To be eligible, candidates must meet the following conditions:

- Be enrolled in a statistics or data science graduate program or have earned a statistics or data science degree within five years of the award date
- Identify as LGBTQ+ or an ally

The ASA Pride Scholarship was established to raise awareness and support the success of LGBTQ+ statisticians and data scientists, as well as allies.

The scholarship celebrates their diverse backgrounds and highlights the skills and perspectives these individuals bring to the ASA, statistics, and data science.

The nomination form may be found at *https://form.jotform.com/AmStat/asa-pride-scholarship.*

For more information, visit *https://bit.ly/4826uoS.* ■

Edward C. Bryant Scholarship

Applications are being accepted for the Edward C. Bryant Scholarship for an Outstanding Graduate Student in Survey Statistics until March 1. One scholarship recipient is selected annually and receives a certificate and cash prize of $2,500.

Selection of the scholarship recipient is made by the ASA Bryant Scholarship Award Committee based on the following criteria:

- Potential to contribute to survey statistics
- Applied experience in survey statistics
- Performance in graduate school

Westat established the Edward C. Bryant Scholarship Trust Fund in 1995 to honor its cofounder and chair emeritus and help support a student's graduate education.

Fill out the application form at *https://form.jotform.com/AmStat/bryant-scholarship*. For more information, visit *https://bit.ly/4841lwL.* ■

EDGE Foundation Awards

Application for the Karen EDGE Fellowship and Mary Beth Ruskai Research Fund is now open.

The Karen EDGE Fellowship supports and enhances the research programs and collaborations of mid-career mathematicians who are underrepresented minorities. Fellowships are available to mathematicians of any gender identity employed in full-time positions in the United States. The award consists of $8,000 per year for three years. For more information, visit *www.edgeforwomen.org/karen-edge-fellowship-program*. Applications are due by March 15 at *www.mathprograms.org/db/programs/1725.*

The Mary Beth Ruskai Research Fund for Women was established to advance the research careers of women in the mathematical sciences through travel, collaboration, or other activities. The scope of these grants reflects Ruskai's commitment to women and interdisciplinary work. The award consists of $5,000 to support the grantee's research. For more information, visit *www.edgeforwomen.org/the-mary-beth-ruskai-research-fund-for-women.* Applications are due by March 15 at *www.mathprograms.org/db/programs/1611.*

Questions can be emailed to *edgestaff@edgeforwomen.org.* ■

Joint Statistical Meetings Poster Competition

The ASA's Section on Text Analysis invites students to compete for a $300 prize in its annual JSM poster competition.

JSM posters that exhibit research into new methodologies for text analysis or the application of text analytics to high-impact problems benefiting the world are encouraged. Posters that align with the JSM 2025 theme, "Statistics, Data Science, and AI Enriching Society," are especially welcome.

Contest participants must be part of a poster presentation session at JSM and notify the section of their interest in the competition by emailing their abstract and session number to Wendy Martinez at *wendy.l.martinez@census.gov* or Qiuyi Wu at *qiuyi.wu@duke.edu* by July 18. The posters will be judged at JSM, with the announcement of the winner made at the conference. ■

2025 Young Statisticians Prize

The International Association for Official Statistics Young Statisticians Prize competition deadline for manuscript submissions is set for February 21. This international prize encourages young statisticians to take an active interest in official statistics and is awarded for the best paper in the official statistics field written by a young statistician.

The competition offers awards for first, second, and third place, as well as a special prize for the best paper from a lower- or middle-income country. In addition to the monetary prizes, the first-place winner(s) receive travel funds to present their paper at an international conference.

For details, visit the International Association for Official Statistics website at *https://iaos-isi.org/ysp*. ■

Mentoring Award

Is there someone in your career history who has been a significant and ongoing mentor to you? Has someone encouraged and challenged you, offered just the right questions to help you make important career decisions? If so, consider nominating them for the ASA's annual Mentoring Award.

Established in 2015, the award is bestowed upon an ASA member who has demonstrated extraordinary leadership in developing the careers of statistics students, statisticians, or statistical researchers early in their careers over a long period.

Nominations are due by March 1, and the award will be presented at the Joint Statistical Meetings this summer. For details and to nominate a colleague, visit *https://bit.ly/48rtAVP*. ■

Visit the ASA website to view a comprehensive list of awards and scholarships. *https://bit.ly/46X9sLm*

Upcoming Award Deadlines

Excellence in Statistical Reporting Award
Deadline: March 1, 2025

Fellows of the ASA
Deadline: March 1, 2025

ASA Mentoring Award
Deadline: March 1, 2025

Outstanding Statistical Application Award
Deadline: March 1, 2025

Statistical Partnerships Among Academe, Industry, and Government (SPAIG) Award
Deadline: March 1, 2025

Biopharmaceutical Section Scholarship Award
Deadline: March 15, 2025

Founders Award
Deadline: March 15, 2025

Causality in Statistics Education Award
Deadline: April 5, 2025

Government Statistics Section Wray Jackson Smith Scholarship
Deadline: May 1, 2025

Norman Beery Memorial Scholarship
Deadline: July 1, 2025

Links Lecture Award
Deadline: July 1, 2025

Dorothy Marie Lamb and Annette Lila Ryne Memorial Scholarship
Deadline: July 15, 2025

Health Policy Statistics Section Achievement Awards
Deadline: September 15, 2025

Questions about these awards may be sent to *awards@amstat.org*. ■

Mallick Honored with Regents Professor Award

Bani K. Mallick, a professor in the department of statistics at Texas A&M University, was recently designated a Regents Professor by the Texas A&M University System Board of Regents. The Regents Professor Award, established in 1996, honors individuals who have made extraordinary contributions to their university, their field, and the people of Texas.

"Each of these distinguished individuals has made significant contributions to their fields and to the state of Texas," said Bill Mahomes, the board of regents' chair. "Their achievements embody the A&M system's mission of service and innovation, and I hope their dedication will motivate others."

As a Regents Professor, Mallick will carry the perpetual title for the duration of his service to the A&M system and receive commemorative memorabilia during a special ceremony.

Mallick has been a faculty member at Texas A&M since 1998 and is widely regarded as a pioneer in Bayesian nonparametric regression and classification. He served as the director and principal investigator of the National Science Foundation's Transdisciplinary Research in Principles of Data Science Institute of Data Science Phase 1 and currently directs the Center for Statistical Bioinformatics at Texas A&M.

Over the course of his three-decade career, Mallick has developed groundbreaking methodology and theory that form the foundation of interdisciplinary research across numerous fields. His work in Bayesian modeling and computation has garnered support from such organizations as the National Science Foundation, National Institutes of Health, US Department of Energy, and US Department of Defense.

Mallick is a fellow of the American Association for the Advancement of Science, American Statistical Association, and Institute of Mathematical Statistics, as well as an elected member of the International Statistical Institute. His past honors include the Outstanding Young Researcher Award from the Indian Statistical Association, the Fulbright-Nehru Distinguished Chair award for 2017–2018, the Texas A&M Association of Former Students Distinguished Achievement Awards in Research in 2006 and Graduate Mentoring in 2019, and the University of Connecticut Department of Statistics Distinguished Alumnus Award for 2020–2021. He is currently the joint editor-in-chief of the SIAM/ASA journal *Uncertainty Quantification.*

> Each of these distinguished individuals has made significant contributions to their fields and to the state of Texas. - *Bill Mahomes, Board of Regents Chair*

Visit the Texas A&M website at h*ttps://tinyurl.com/tkk3cyvw* for details about the award. ■

Students Win Hackathon for Health Care Solution

AI4Purpose and the Center for Cognitive and Decision Sciences inaugural hackathon brought students together for two days of health care innovation and mentorship across multiple categories at the New York University Center for Data Science. ASA New York City Metro Area Chapter members Marcia Levenstein and Kelly Zou were mentors and judges.

Team Cure Coders—whose members were Jayant Dabas, Jovita Gandhi, Vy Mai, Brian Mann, and Maitri Patel—won first place for their health care solution, MyCareMap.

Team Mood Bite—whose members included Arya Kotibhaskar, Deepanshu Mody, Anagha Palandye, Rishabh Patil, and Mustafa Poonawala—won second place for their postpartum mental health project.

Finally, Team Pay Med—comprised of Rebecca Rinehart, Darren Jian, Taruni Nugooru, and Eric Zhao—won third place. ■

ASA Founder and Fellow Contributes to Reuters Series

James J. Cochran, founder and fellow of the American Statistical Association, contributed his expertise in statistical methodologies to The Bat Lands, Reuters' award-winning online series that explores the connection between environmental destruction and human health.

The series is notable for its advanced data journalism approach, employing satellite imagery and sophisticated analytics to predict the likely locations of future outbreaks of dangerous bat-borne pathogens. The methodology's precision accurately predicted the 2022 Marburg virus disease outbreak in Ghana.

The full series, including an in-depth look at the methodology and predictive models, is available at *https://tinyurl.com/r5d4ry5t.* ■

The Power of Mentorship

In this 2002 photo, Ben Hansen stands in his cap and gown behind three mentors who shaped his academic journey (from left): David Blackwell; Kjell Doksum; and Leon Henkin. While pursuing his PhD at the University of California, Berkeley, Group in Logic and Methodology of Science, Hansen sought to bridge his interests in mathematical foundations and their societal impact.

This snapshot captures not only a milestone in Hansen's career, but also the enduring impact of mentorship across disciplines, backgrounds, and generations. Read more about Hansen and his work in the *Amstat News* Black History Month section at *https://magazine.amstat.org.*

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Survey Research Methods Section

Eric Rancourt, SRMS Chair, Statistics Canada

As all of us statisticians are making sure to renew our ASA membership, serious consideration should be given to joining the Survey Research Methods Section (SRMS).

With the proliferation of data and data sources, one might think surveys are becoming less in demand or less important, but ensuring estimations and predictions are solidly anchored in a probabilistic approach that enables drawing solid inferential conclusions is needed more than ever.

Surveys are prime for anchoring non-random samples (administrative and other alternative files) into a framework that allows for conclusions beyond the data set at hand. As the use of machine learning and various more complex nonparametric (and parametric) models increases, this becomes key. Further, these techniques raise issues such as difficulty producing predictions for units that are outside of distribution (OOD) that are very much related to producing estimates in a context of large nonresponse rates. In a sense, survey statisticians have been working on developing solutions for these issues.

Finally, statisticians must combine data sets to produce valid integrated statistics. Again, survey statisticians have been working on this issue by combining the use of surveys and administrative data.

So, surveys are here to stay. They can provide a spine to numerous estimation and prediction challenges. They could even be designed to gather information specifically on OOD, thereby enabling greater possibilities of inference.

Of course, SRMS members also have much to learn from colleagues in other sections, so join us and let us benefit from each other. ■

Join Us
for an
ASA meeting!

SDSS
SYMPOSIUM ON DATA SCIENCE & STATISTICS

Salt Lake City, Utah
April 29–May 2, 2025

SDSS provides a unique opportunity for data scientists, computer scientists, and statisticians to come together and exchange ideas.

ww2.amstat.org/meetings/sdss/2025

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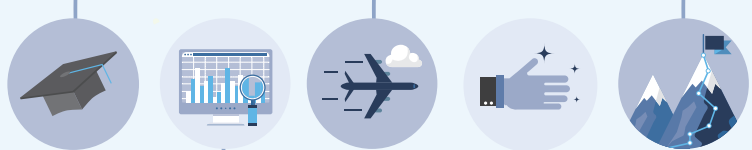

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Top Ten **Ways to Celebrate the Start of the Fifth Season of *Practical Significance***

Wasserstein

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*. As the podcast hits a major milestone, Ron reflects, "There are lots of ways to celebrate a fifth anniversary that involve the word 'fifth.'"

10

Pour a "fifth." Readers are reminded to drink responsibly.

09

Shift into "fifth gear." Readers are reminded not to drink and drive.

08

Stream *The Fifth Element* and watch Bruce Willis save the world.

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

07

Celebrate the Year of the Dragon, the fifth year in the Chinese zodiac.

06

Explore "The Fifth Estate" in your browser, unless you are clergy, nobility, a commoner, or the press.

05

Play a "perfect fifth" on your favorite musical instrument.

04

Study the "circle of fifths," which is beautiful musically and mathematically.

03

Dance to the music of [the band] Fifth Harmony.

02

While celebrating, steer clear of Dante's Fifth Circle of Hell, as the River Styx is notably unfriendly to parties.

#01

Plead "the fifth."

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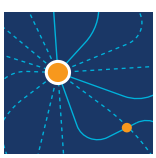

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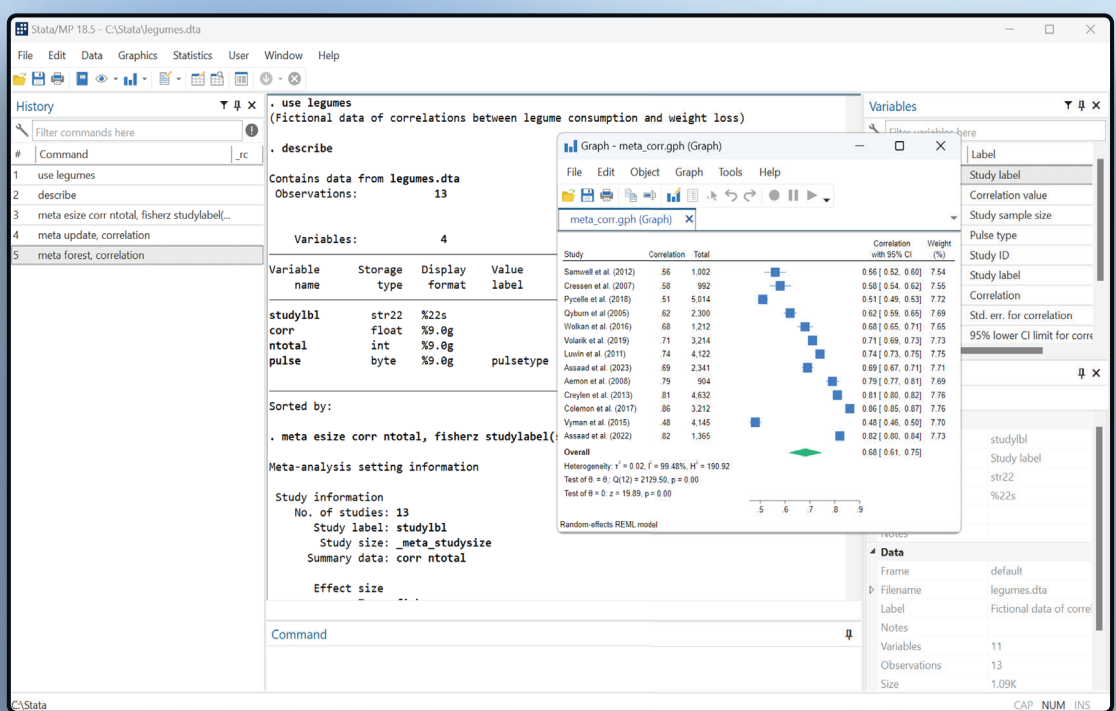

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