

November 2024 • Issue #569

# AMSTATNEWS

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



Diversity in Backgrounds, Careers a Major Theme in

# Survey of Master's Graduates

## ALSO:

Data Science,  
Analytics Degrees  
See Explosive Growth

Committee Works to  
Recognize Excellence  
Beyond Statistics, Data  
Science Communities





Statistics, Data Science, and AI Enriching Society

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**November 14 – December 9, 2024**

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**December 2, 2024 – February 3, 2025**

General Abstract Submission

**January 15, 2025**

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**January 23 – April 4, 2025**

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**August 2-7**

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# AMSTATNEWS

NOVEMBER 2024 • ISSUE #569

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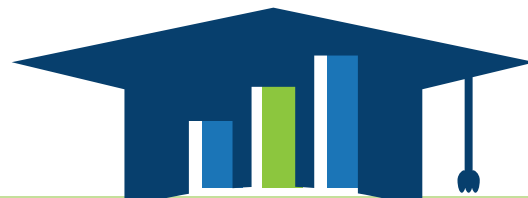
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American Statistical Association



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

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**Data Science, Analytics Degrees See Explosive Growth; Biostatistics, Statistics Master's Degrees on the Rebound**

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## columns

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**Former ASA Section Chair Shares Career, Leadership Journey**

STATtr@k is a column in *Amstat News* and a website geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. To read more articles like this one, visit the website at <http://stattrak.amstat.org>. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, *Amstat News* managing editor, at [megan@amstat.org](mailto:megan@amstat.org).

- 32 **STATS4GOOD**  
**COPSS Awards Reward Data for Good**

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](mailto:davidjcorliss@peace-work.org).

## Amstat News Has New Publishing Schedule

Beginning in January 2025, we will print *Amstat News* eight times per year but continue to publish it online every month.

The deadline to send in your news items will remain the same. Submit your article by the first of the preceding month you would like your piece published to ensure its appearance in the correct issue (e.g., June 1 for the July issue). For details about how to submit an article, view our submission instructions at <https://magazine.amstat.org/about/submission-instructions>.

## Edward Wu Interviews Andrew Gelman About Presidential Polling

The Washington Statistical Society and George Mason University held a joint seminar on the presidential election on October 11. Edward Wu—data, polling, and election analytics senior producer at CNN—interviewed Andrew Gelman, professor of statistics and political science at Columbia University, following Gelman's talk, "Tough Choices in Election Forecasting: All the Things That Can Go Wrong." See <https://magazine.amstat.org/blog/2024/11/01/wugelman> for details.

## Interest Group Formed on Statistics in New Approach Methods

A new interest group called Statistics in New Approach Methods has been established on the ASA Community. New approach methods incorporate a blend of in silico, in vitro, and in vivo methods designed to reduce or replace the use of animal models in biomedical research, addressing ethical, cost-related, and public health concerns. Learn more and get involved at [bit.ly/3BpVjek](http://bit.ly/3BpVjek). Questions can be emailed to Danielle Demateis at [danielle.demateis@colostate.edu](mailto:danielle.demateis@colostate.edu).

## A Sampling of Inequity

Eric J. Daza—a health data scientist and diversity, equity, and inclusion leader—explores the statistical implications of diversity, equity, and inclusion efforts in the context of the US Supreme Court's 2023 ruling against affirmative action in college admissions. Daza criticizes the decision by highlighting the myth of meritocracy and explaining how historical inequities shape educational opportunities across racial groups. Read the article at <https://magazine.amstat.org>.

## CORRECTIONS

In the October issue, Shrijita Bhattacharya's photo was incorrect. The photo was that of Wen-wen Tung, a program officer in the Office of Advanced Cyberinfrastructure of the National Science Foundation Computer and Information Science and Engineering Directorate. Also, Jeannette Wing's name was misspelled. We apologize for these errors.

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# From Recognition to Inspiration: The Power of Awards in Statistics

The Tuesday evening awards ceremony at this year's Joint Statistical Meetings in Portland, Oregon, was filled with palpable excitement and joy. We returned to celebrating awardees on stage—including hugs, handshakes, and happy faces—after a few years off due to the pandemic.

Celebrating the accomplishments of statisticians and data scientists helps ASA members see what's possible for them, too. And awards offer many other benefits, including the following:

- Awards establish new benchmarks for innovation and excellence.
- Professionals learn from each other's successes and become inspired to improve practices and raise standards.
- Awards broadly recognize areas of expertise, service, and leadership.
- Recognition helps instill a growth mindset and culture of lifelong learning in members.
- Sharing the profiles of leaders in our field inspires others—members, early-career scientists, and students—to excel in their work, improve their performance, and set aspirational goals so they can be recognized and walk across that stage one day.
- Award programs have the capacity to promote equal opportunity by ensuring a fair and open nomination process. Perceptions of fairness and equity are critical to the maintenance of the advantages of using an award system.

## Recognizing Excellence and Innovation

It is a historical fact (and common source of aggravation) that there is no Nobel prize in statistics (though notable statistical achievements have been recognized with Nobel prizes in other related disciplines). To increase awareness and visibility of our field and its impactful contributions, our professional societies and eminent statisticians (leaders) have worked tirelessly to establish a few grand prizes. The ASA, Royal Statistical Society, International Statistical Institute, Institute of Mathematical

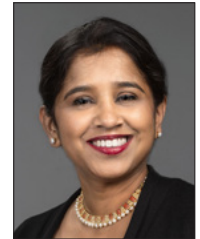
Statistics, and International Biometric Society established the International Prize in Statistics, which is awarded every other year. Awardees to date include the late Sir David R. Cox (2017), Brad Efron (2019), Nan Laird (2021), and the late C.R. Rao (2023).

Another grand prize, awarded every two years, is The Rousseeuw Prize in Statistics. This award recognizes outstanding statistical innovations with societal impact and promotes awareness of the profound effect of statistical thinking on human endeavors. When interviewed about his motivation to create such a prize, Peter Rousseeuw said, "As a graduate student, I was disappointed with the lack of recognition for statistical research. Part of this is due to the typical modesty among statisticians, and our field is wedged between more abstract disciplines and more lucrative ones." He continued, "But the existence of prestigious awards also has an effect. The fact that some disciplines have Nobel prizes has certainly helped them, as the visibility of such awards sparks the imagination, which attracts students, good researchers, funding, and so on."

The 2022 award was for causal inference with applications in medicine and public health, while the 2024 award was for false discovery rate and methods to control it. Both topics have had a great impact on science and society.

The David Cox Medal is the newest international statistical award commemorating the life and work of Sir David Roxbee Cox (1924–2022). Jointly awarded by the Royal Statistical Society, American Statistical Association, Bernoulli Society, International Biometric Society, Institute of Mathematical Statistics, and International Statistical Institute, the award will recognize original research that moves statistical theory, methodology, or applications substantially forward. Three medals will be given every three years to persons under 50 years of age. The awards will be made for the first time in 2025. In this first round, Andrea Rotnizky and Thomas Belin are serving on the Search and Prize Committee on behalf of the ASA. My sincerest appreciation for their service and leadership.

Most people reading this column understand the immense value statistics brings to the world.



Madhumita (Bonnie) Ghosh-Dastidar



I hope these relatively new prizes help convey that value to a broader worldwide audience.

### From Innovation to Impact

One credible reason for the lack of a Nobel prize is that mathematics was not considered a practical science from which humanity could benefit (a chief purpose for creating the Nobel Foundation). This is no longer true. In recent times, statistics has made countless contributions to real-world problems—connecting innovation with impact. In a continuation of the interview I mentioned earlier, Rousseeuw commented on why this is the right time to establish a grand prize. He said, “Statistical work on the pandemic has been covered extensively in the media. Also, a lot of statistical research is being done by people who do not necessarily identify as statisticians and under different flags such as data science, big data, and so on. Creating a large prize for statistics, defined broadly to encompass all those endeavors, will hopefully encourage a more unified view of the various strands.”

In a separate commentary, one of our greatest statisticians Xiao-li Meng said, “The most compelling reason for having highly visible awards in any field is to enhance its ability to attract future talent. Virtually all the media and public attention our profession received in recent years has been on the utility of statistics in all walks of life. We are extremely happy for and proud of this recognition—it is long overdue.”

The importance of awards for attracting future talent cannot be overstated. We are all responsible for ensuring nominations reflect the full range of individuals working in the field. We all have a role to play.

### Ensuring Fairness, Increasing Representation

In the United States, November is a month in which to express gratitude. Gertrude Stein said, “Silent gratitude isn’t much use to anyone.” One important expression of gratitude is recognition through nomination and ultimately selection of an award. In this spirit, I would like to call attention to other awards within our society (with deadlines in February or March 2025) that are powerful representations of our gratitude. I encourage you to consider making a nomination.

- The ASA Pride Scholarship was established to raise awareness for and support the success of LGBTQ+ statisticians and data scientists and allies. The scholarship will celebrate their diverse backgrounds and showcase the invaluable skills and perspectives these individuals bring to the ASA, statistics, and data science.

- A scholarship established by Westat to honor its co-founder and chair emeritus, Edward C. Bryant, is awarded to outstanding graduate students in survey statistics to help support their graduate education.
- The ASA Founders Award recognizes members who have rendered distinguished service to the association.
- The Harry V. Roberts Statistical Advocate of the Year Award recognizes the accomplishments and contributions of those who have successfully advocated appropriate and effective uses of statistics and data-analytic approaches in business and the public sector. Unlike other awards, this award recognizes the promotion of statistical reasoning by individuals who may or may not be statisticians.
- The Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society, established in 2012, recognizes statisticians who have made substantial contributions to the statistical profession and society in general. The award was established by Christopher K. Peace, son of Karl E. Peace, on behalf of the Peace family to honor the life work of his father.
- The ASA Mentoring Award is given each year to a member who has demonstrated extraordinary leadership in developing the careers of statistics students, statisticians, or statistical researchers early in their careers.
- The Wilks Award was established to honor the memory and distinguished career of Samuel S. Wilks by recognizing outstanding contributions to statistics that carry on in the spirit of his work.

By nominating colleagues for these and all awards, you support not only them but the profession. By making the effort to nominate our colleagues, we help ensure a fair and open nomination process, one in which not just those “in the know” are nominated. By creating deep and wide pools of nominees; by carefully listing selection criteria; by thoughtfully selecting award committee members; and by maintaining careful, unbiased evaluation and selection of recipients, we ensure the fairness and equity that are critical to maintaining these advantages of giving awards.

So please do your part by nominating colleagues and by saying “yes” when you are invited to serve on an awards committee.

*M. Ghosh Deshpande*

# Committee Works to Recognize Excellence Beyond Statistics, Data Science Communities

Kimberly Sellers, Amit Bhattacharyya, Joseph Cappelleri, Arvind Rao, Mary Batchner, Scarlett Bellamy, Ginger Holt, Karen Price, Wei Zhong, and Steve Pierson

The American Statistical Association established the External Nominations and Awards Committee in 2017 for the following two purposes:

1. Identify high-profile awards (external to statistics) for which statisticians are eligible and should be considered for nomination
2. Identify boards, committees, and other bodies—external to statistics—to which statisticians can potentially be appointed

These initiatives aim to raise the profile of the profession and ensure statistical expertise contributes to advancing science and evidence-based decision-making across various domains. They are also intended to recognize the contributions of a wide range of statisticians and data scientists, thereby advancing science and accelerating innovation.

Committee members have identified strong candidates and been instrumental in identifying opportunities and aiding recognition of outstanding contributions and achievements in areas such as scientific research and innovation, public service and policy impact, leadership and mentorship, and lifetime achievements and distinguished careers. They also have considered statisticians for potential inclusion on scientific advisory boards and expert panels, policy and regulatory committees, interdisciplinary research collaborations, and national and international governing bodies.

Committee efforts over the last few years have produced the following results:

- James O'Malley of the Dartmouth School of Medicine received the 2019 International Society for Pharmacoeconomics and Outcomes Research best methodology research award
- Mahmoud Torabi of the University of Manitoba won the biennial Hukum Chandra Memorial Prize from the International Association of Survey Statisticians for "Sumca: Simple, Unified, Monte-Carlo Assisted Approach to Second-Order Unbiased MSPE Estimation" in 2022
- Claire Bowen of the Urban Institute and Ron Prevost of Georgetown University were named to the Census Scientific Advisory Committee in 2022

- Nagambal Shah of Spelman College (emerita) received the 2023 American Association for the Advancement of Science Lifetime Mentor Award
- Jessica Roydhouse of the University of Tasmania was recognized with the International Society for Pharmacoeconomics and Outcomes Research Best Young Investigator Award
- Kristen Olson and Ting Yan were selected to serve on the 2030 Census Advisory Committee in 2024

The committee further works with ASA committees and sections to identify potential candidates for nominations, as well as individuals to lead the nomination process. For example, collaboration with the ASA Section on Statistics and the Environment led to Elena Naumova of Tufts University being appointed to the US Environmental Protection Agency Science Advisory Board in 2022.

While these efforts have proven fruitful, committee members recognize they are limited in their ability to identify candidates for nomination across all domains with applications in statistics and data science. To ensure a diverse and inclusive pool of candidates, the committee welcomes the support of the ASA community in bringing potential candidates to its attention via colleague-sponsored and self nominations. This approach recognizes the wealth of talent and expertise among ASA members and provides an opportunity for individuals to showcase their accomplishments and qualifications.

A list of awards and nomination opportunities can be found at [bit.ly/3NjH5hP](https://bit.ly/3NjH5hP), and members can suggest nominees through the form at [bit.ly/4exd4XT](https://bit.ly/4exd4XT). The committee encourages nominations of statisticians from all professional sectors whose work has made important contributions to statistical theory or has been instrumental in the many domains to which statistics applies.

Questions or information about additional opportunities for consideration can be emailed to Kimberly Sellers, committee chair, at [ena.cmte@gmail.com](mailto:ena.cmte@gmail.com). ■

**MORE ONLINE**  
Scan the QR code to view a list of awards and nomination opportunities.



# Committee on Career Development Helps Newbies Network Like Pros

Elizabeth Mannshardt, ASA Membership Council Vice Chair



The ASA Committee on Career Development provides support and information about career decisions to ASA members. The committee is also charged with providing information to nonmembers who are considering a career in statistics. Photo courtesy of Claire McKay Bowen

The ASA's Committee on Career Development hosted its annual networking session, titled "Networking Like a Pro: A Guided Networking Session," this year at JSM, supporting ASA President Bonnie Ghosh-Dastidar's initiative on mentoring. Held the first afternoon of JSM, the event provided students and early-career statisticians an opportunity to practice networking in a friendly environment before heading out to meet and greet throughout the conference.

ASA President-Elect Ji-Hyun Lee, professor and associate director for cancer quantitative sciences at the University of Florida, and ASA Vice President Jenny Thompson, senior mathematical statistician in the Census Bureau Economic Directorate, were featured speakers who offered insights from their professional and leadership journeys.

Key themes emerged on the importance of networking, including practicing. Just like technical skills, power skills like networking require



time and thought for development, stressed Lee and Thompson. As you go into a professional event, it helps to have a couple main thoughts on hand and to remember the aim is to make human connections.

Attendees had the opportunity to practice networking skills with the speakers and volunteer mentors from throughout the ASA community. Lee said, “I thought the session effectively highlighted the essence of being purposeful (intentional), authentic (across the three sectors), and proactive in networking interactions.”

Thompson added, “The lecture/mingling format was very effective in breaking the ice.” She also appreciated attendee participation during the breakout session, noting, “The volume crescendoed!”

After the first breakout, volunteers shared further insights on making connections. A student asked how to network when you are an introvert. One idea was to practice networking by having a poster at a conference, including talking to others about their poster or research.

Mark Otto, a featured speaker from the committee’s JSM 2023 networking event, said, “Joining and becoming involved with a section or interest group also connects you with statisticians in your field. Here are colleagues who will become the core of your network, those you will collaborate with, source of possible jobs, and potential contacts. Sections are where you will follow where your field of statistics is and is going. You can add the ASA Community (<https://community.amstat.org/resources>) to your social media to connect with every topic.”

Lee noted it helps to share personal interests. Get to know the person as a person and genuinely care for people beyond work-related topics.

Thompson explained that networks offer opportunities you may not have originally considered. Careers build and evolve over time—and careers may not always go according to plan.

Your network can help you evolve and adapt. She also noted your network builds over time and can become a big support system. It can also provide a way to look for and get involved with new projects and to find your next career step.

Another student asked how to network when you may not have anything to offer. Participants agreed you always have something to offer and hoped people would have the courage to reach out to others. Participants also agreed it is okay to have failures because that is how we learn and become ready for the next experience.

Stamatia (Tia) Vafeas, an MS biostatistician interested in a career focusing on health care and biotech research, said, “My main takeaway from it was the value of networking in understanding the experience of a job or company prior to working there. You can gain so much more information about a company or a career path from a five-minute conversation than you can from pouring hours into reading a website or LinkedIn posts. And, at least for me, it’s much more gratifying because you get an opportunity to connect with peers.”

Claire Bowen, 2019 committee chair and founder of the networking event, said, “It was wonderful to attend the event years after starting it in Denver in 2019. I loved seeing the students and early-career professionals interacting with each other and with their colleagues, who may become future mentors to help advance their careers.”

Thompson said, “The session was a lot of fun! I hope the attendees made connections amongst themselves. To me, that’s the most important outcome of these mingling events. We may not remember the guest speakers, but we often remember the people [who] shared the experience and gave their own perspective.”

As the meeting wrapped up, Lee advised everyone to aim to meet at least five new people. She also said she enjoyed the event immensely. ■

#### MORE ONLINE

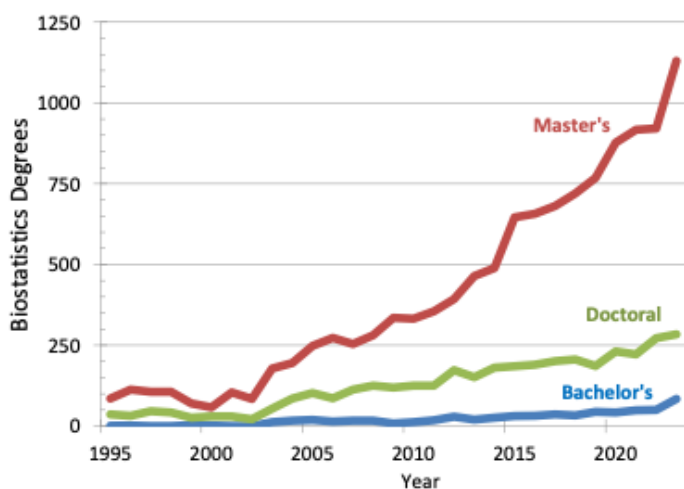
To learn about imposter syndrome and how to overcome it, check out the committee’s podcast on the subject at [community.amstat.org/ccd/events/ccdpodcasts](https://community.amstat.org/ccd/events/ccdpodcasts).



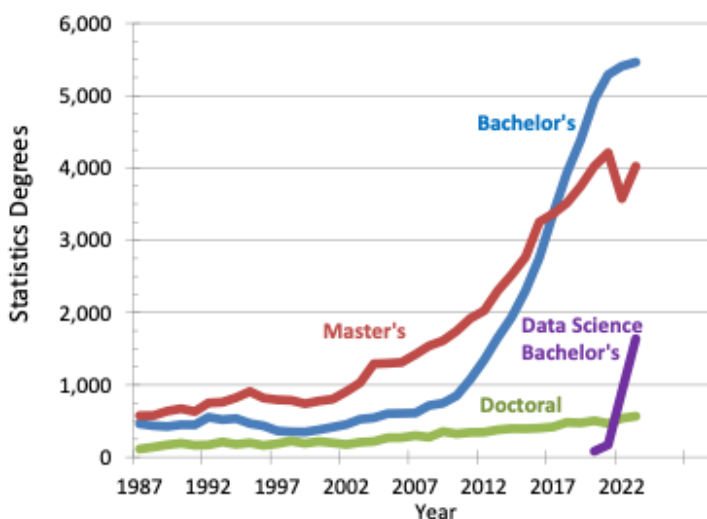
# Data Science, Analytics Degrees See Explosive Growth

## *Biostatistics, Statistics Master's Degrees on the Rebound*

Steve Pierson, ASA Director of Science Policy



**Figure 1:** Biostatistics degrees by degree level awarded in the United States



**Figure 2:** Statistics degrees by degree level and data science bachelor's degrees awarded in the United States

This summer's release of the 2023 degree completion data from the National Center for Education Statistics shows incremental to solid growth for statistics and biostatistics degrees and doubling and tripling for data science and analytics degrees.

Most notably for statistics and biostatistics, master's degrees in biostatistics increased 23% over 2022 to 1,130, as shown in Figure 1. Biostatistics PhDs increased 4% to 284, and biostatistics bachelor's from 50 to 84. The number of bachelor's degrees in statistics grew 1% to 5,463, and statistics PhD's 5% to 568, as shown in Figure 2.

Statistics master's degrees increased by 13% from 2022 to 2023 but followed a 15% drop the previous year, so this degree category is not an all-time high like the five others. The rebound in statistics master's degrees speaks to an explanation for the drop from 2021–2022 being due to the pandemic. Other possible contributing factors cited last year include declining interest from Chinese students—due to changing job opportunities and work visa availability—and the introduction of closely related degree programs.

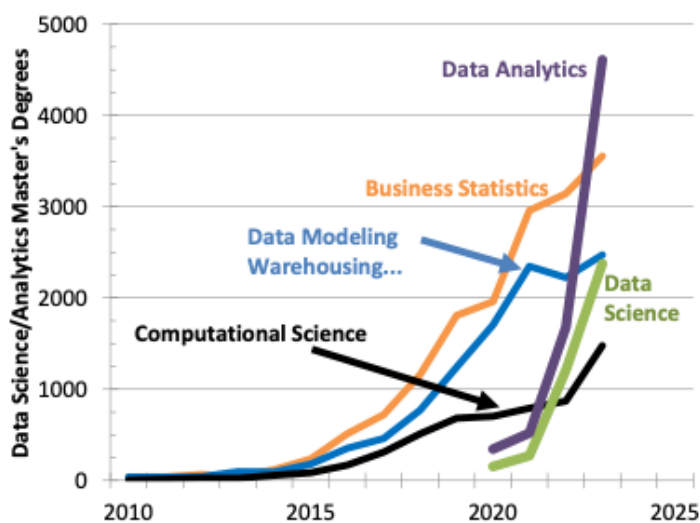
For degrees in data science and analytics, the National Center for Education Statistics introduced two Classification of Instructional Programs, referred to as CIP, codes starting with the 2019–2020 academic year: 30.70 for data science and 30.71 for data analytics. The growth in these degrees at the bachelor's and master's levels is dramatic. Bachelor's degrees in data science

**Table 1: Master’s Degrees Granted in Data Science, Analytics, and Related Fields for 2010–2023, Along with the Number of Universities Awarding the Degrees**

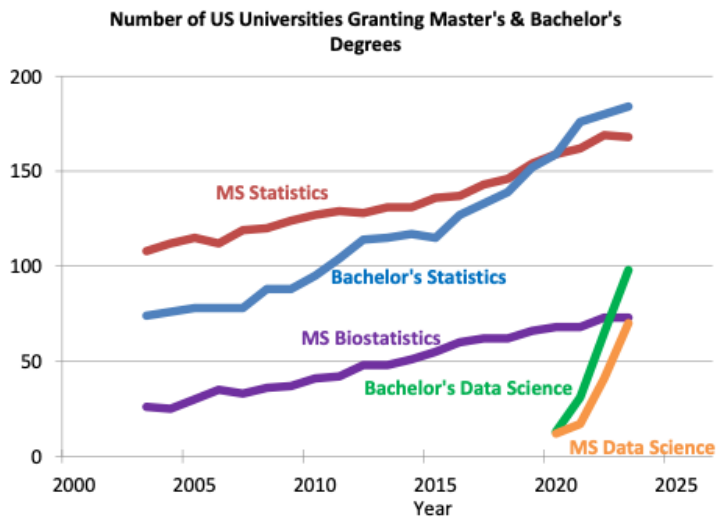
Master’s Degrees	2010-2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Business Statistics</b>	300	236	511	720	1159	1809	1961	2958	3143	3554
# universities granting	8	12	17	26	29	42	45	55	62	61
<b>Data Modeling/Warehousing &amp; Database Administration</b>	307	180	353	459	770	1241	1706	2346	2223	2472
# universities granting	3	6	10	15	21	26	28	32	32	29
<b>Computational Science</b>	126	84	168	311	511	682	703	791	869	1477
# universities granting	10	9	16	16	25	33	36	33	43	44
<b>Data Science</b>							153	271	1208	2376
# universities granting							12	17	41	70
<b>Data Analytics</b>							344	519	1681	4609
# universities granting							15	19	49	91
<b>Total (degrees)</b>	733	500	1032	1490	2440	3732	4714	6614	7916	12112
<b>Total (Universities granting)</b>	21	27	43	57	75	101	124	139	186	225

increased 81% to 1,639, shown in Figure 2, and data analytics bachelor’s degrees increased 95% to 1,517. Data science master’s degrees doubled to approximately 2,400, as shown in Figure 3. Data analytics master’s almost tripled to exceed 4,600 and now outnumber the other master’s degrees in this category, including statistics. The number of universities awarding those degrees each increased more than 70% (see Figure 4 and Table 1).

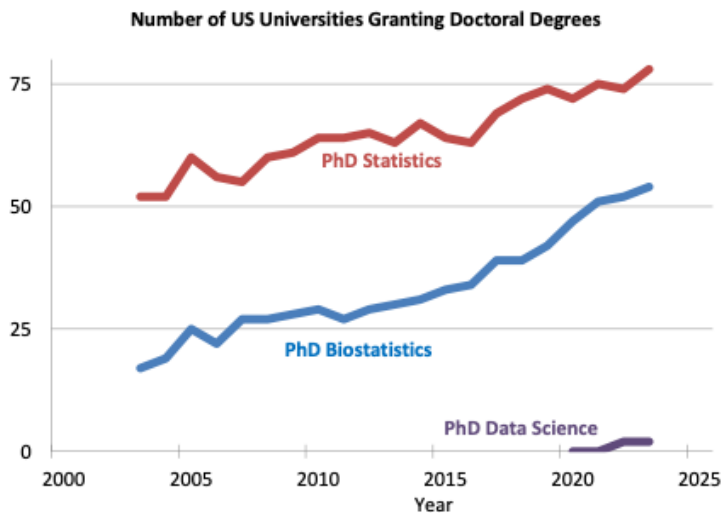
Prior to the introduction of the data science and analytics CIP codes, the ASA used three other codes as a proxy to track the growth of such master’s programs: Business Statistics; Data Modeling/Warehousing & Database Administration; and Computational Science. As also seen in Figure 4, these degrees also saw strong growth, more than 10% for the first two and 70% for computational science. As shown in Table 1, on the other hand, the number of universities awarding master’s degrees with these three CIP codes was flat.



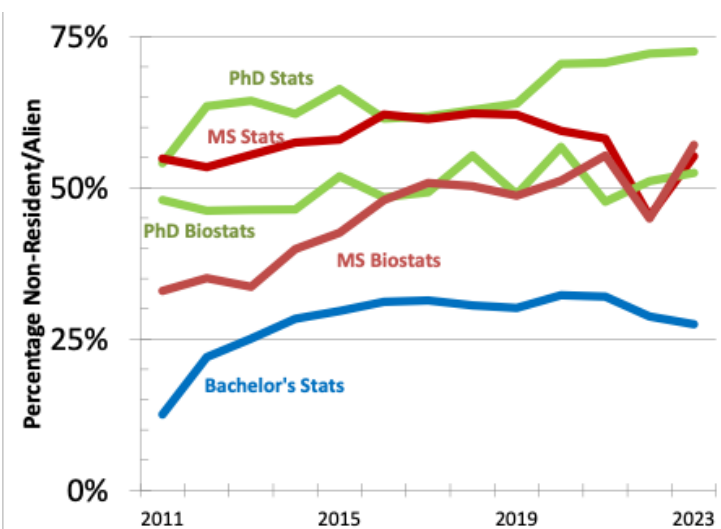
**Figure 3: Master’s degrees awarded from 2010–2023 for three Classification of Instructional Programs codes commonly used by new data science/analytics programs. The graph also shows the number of master’s degrees awarded for 2020–2023 using the new codes for “data analytics” and “data science.”**



**Figure 4:** The number of universities granting statistics, biostatistics, and data science master's and bachelor's degrees. Source: Compiled from the National Center for Education Statistics Integrated Postsecondary Educational Data System



**Figure 5:** The number of universities granting statistics, biostatistics, and data science PhDs. Source: Compiled from the National Center for Education Statistics Integrated Postsecondary Educational Data System



Figures 4 and 5 show the number of universities awarding bachelor's and doctoral degrees in statistics and biostatistics increased modestly from 2022–2023. For master's degrees, these numbers were flat. Nine universities granted biostatistics degrees at the bachelor's level in 2022.

The following 12 universities granted statistics and biostatistics degrees for the first time (at least since 2003) in 2023:

- Bachelor's degrees in statistics (7): California State University at Long Beach; Adelphi University; Bucknell University; Mercer University; Simmons University; Vermont State University; and Xavier University of Louisiana
- Master's degrees in statistics (3): Arizona State University Digital Immersion; Graceland University-Lamoni; and University of Massachusetts-Amherst
- PhD in biostatistics (1): Drexel University
- PhD in statistics (1): University of Massachusetts-Amherst

The top degree-granting institutions over the last five years are in the following tables for all categories except biostatistics bachelor's degrees.

This and related data—including the universities awarding master's degrees in business statistics—can be accessed at [bit.ly/40acdlP](https://bit.ly/40acdlP).

## Demographics

Following our practice of alternating demographics updates, following are the breakdown of degrees for race and ethnicity data and by nonresident aliens and US citizens or residents. Last year's update, which was based on 2022 degree data, had figures for the percentage of statistics and biostatistics degree earned by gender.

As shown in Figure 6, the percentage of master's and doctoral degrees in statistics awarded in recent years to nonresident aliens is near 60% and 70%, respectively. For the same degree levels in biostatistics, it is in the range of 50–55%. The percentage for bachelor's degrees in statistics ticked down a couple percentage points to 27% percent for 2023 over the previous several years.

**Figure 6:** Percentage of statistics and biostatistics degrees earned by nonresident aliens. Source: Compiled from the National Center for Education Statistics Integrated Postsecondary Educational Data System



**Tables 2–5: Top Five Universities Granting Statistics and Biostatistics Degrees for 2018–2022**

<b>Statistics Bachelor's</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>	<b>2003-2023</b>
University of Illinois, Urbana-Champaign	315	335	396	333	330	1709	2723
University of California-Santa Barbara	158	211	261	291	355	1276	1862
University of California-Davis	195	197	239	239	196	1066	1874
University of California-Los Angeles	167	237	189	228	227	1048	1746
University of Virginia	150	203	241	247	200	1041	1560
<b>Subtotal</b>	985	1183	1326	1338	1308	6140	9765
<b>Total</b>	4536	5145	5582	5650	5582	26495	50723

<b>Statistics Master's Degrees</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>	<b>2003-2023</b>
Columbia University	560	521	594	266	493	2434	6390
University of Chicago	139	181	220	276	70	886	1548
New York University	104	170	168	161	202	805	1013
University of Michigan-Ann Arbor	114	120	141	98	157	630	1414
U of Illinois at Urbana-Champaign	77	94	111	53	103	438	1173
<b>Subtotal</b>	994	1086	1234	854	1025	5193	11538
<b>Total</b>	3747	4029	4213	3577	4024	19590	48312

<b>Biostatistics Master's Degrees</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>	<b>2003-2023</b>
Columbia University	99	124	115	119	183	640	1166
University of Michigan	50	61	47	38	85	281	751
Emory University	46	59	47	34	46	232	467
Duke University	29	30	29	47	65	200	324
Harvard University	43	25	37	43	51	199	471
<b>Subtotal</b>	267	299	275	281	430	1552	3179
<b>Total</b>	784	891	929	922	1120	4646	10123

<b>Statistics PhD's</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>	<b>2003-2023</b>
North Carolina State University	23	26	18	29	23	119	402
Iowa State University	19	18	12	19	21	89	298
Florida State University	16	15	17	19	22	89	199
University of Wisconsin	19	15	16	16	17	83	291
University of Michigan	14	18	12	11	20	75	215
<b>Subtotal</b>	91	92	75	94	103	455	1405
<b>Total</b>	474	505	467	539	568	2553	7940

<b>Biostatistics PhD's</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>	<b>2003-2023</b>
University of North Carolina	12	19	17	22	14	84	289
University of Michigan	12	11	17	17	15	72	240
Harvard University	19	9	17	8	18	71	252
U of Texas Health Science Center	12	15	14	13	13	67	200
University of Washington	12	17	8	6	15	58	196
<b>Subtotal</b>	67	71	73	66	75	352	1177
<b>Total</b>	186	231	222	272	284	1195	3139

**MORE ONLINE**  
The ASA examines the NCES degree completion data annually and posts the statistics and biostatistics data at [bit.ly/40acCdP](https://bit.ly/40acCdP).



**Table 6: Degrees Earned by NCES Race/Ethnicity Group and Degree Level, Averaged Over 2011–2023, as a Percentage of Degrees Earned by US Citizens or Residents**

	AIAN	ASIA	BKAA	HISP	NHPI	WHIT	2MOR	UNKN
<b>BA Stats</b>	0.1%	27.3%	2.7%	7.8%	0.1%	54.7%	4.0%	3.1%
<b>MS Biostats</b>	0.1%	24.9%	4.4%	6.7%	0.1%	54.5%	3.0%	6.3%
<b>MS Stats</b>	0.1%	23.4%	4.2%	7.1%	0.1%	56.4%	2.6%	6.1%
<b>PhD Biostats</b>	0.0%	23.9%	4.8%	4.5%	0.5%	56.6%	1.6%	8.1%
<b>PhD Stats</b>	0.1%	18.1%	3.6%	4.0%	0.1%	61.6%	2.6%	8.9%

Source: National Center for Education Statistics Integrated Postsecondary Educational Data System

**Table 7: Number of Degrees Awarded to African Americans or Blacks Who Are US Citizens or Permanent Residents by Degree Level, Along with Percentage of Degrees to US Citizens or US Residents Who Are African American or Black**

	BA Stats	MS Biostats	MS Stats	PhD Biostats	PhD Stats
<b>2011</b>	31 (3.3%)	12 (5.0%)	46 (5.3%)	6 (9.4%)	6 (3.8%)
<b>2012</b>	47 (4.5%)	14 (5.6%)	47 (5.0%)	7 (7.6%)	3 (2.4%)
<b>2013</b>	44 (3.5%)	15 (4.9%)	58 (5.6%)	3 (3.7%)	6 (4.4%)
<b>2014</b>	37 (2.7%)	11 (3.8%)	44 (4.1%)	5 (5.2%)	6 (4.0%)
<b>2015</b>	41 (2.5%)	18 (4.9%)	49 (4.2%)	4 (4.5%)	4 (3.0%)
<b>2016</b>	50 (2.6%)	18 (5.3%)	40 (3.2%)	3 (3.1%)	4 (2.6%)
<b>2017</b>	56 (2.4%)	16 (4.8%)	49 (3.8%)	6 (5.9%)	4 (2.5%)
<b>2018</b>	58 (2.1%)	14 (3.9%)	52 (3.9%)	5 (5.4%)	9 (5.0%)
<b>2019</b>	77 (2.5%)	23 (5.8%)	53 (3.7%)	2 (2.1%)	8 (4.7%)
<b>2020</b>	90 (2.8%)	16 (3.7%)	69 (4.2%)	2 (2.0%)	2 (1.3%)
<b>2021</b>	95 (2.7%)	12 (2.9%)	70 (4.0%)	6 (5.3%)	4 (2.9%)
<b>2022</b>	107 (2.8%)	18 (3.6%)	85 (4.3%)	7 (5.3%)	8 (5.3%)
<b>2023</b>	109 (2.7%)	21 (4.3%)	81 (4.5%)	6 (4.4%)	6 (3.8%)

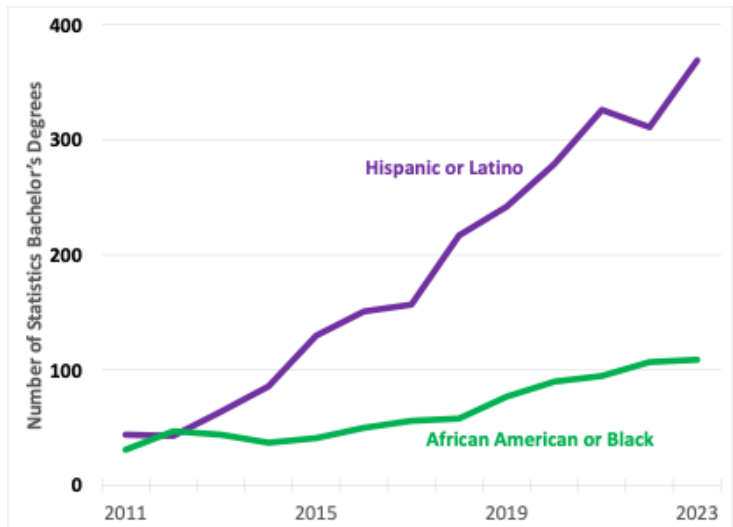
**Table 8: Number of Degrees Awarded to Hispanics or Latinos Who Are US Citizens or Permanent Residents by Degree Level, Along with Percentage of Such Degrees to US Citizens or US Residents**

	BA Stats	MS Biostats	MS Stats	PhD Biostats	PhD Stats
<b>2011</b>	44 (4.7%)	7 (2.9%)	33 (3.8%)	3 (4.7%)	3 (1.9%)
<b>2012</b>	43 (4.1%)	19 (7.6%)	46 (4.9%)	1 (1.1%)	7 (5.6%)
<b>2013</b>	64 (5.2%)	12 (3.9%)	59 (5.7%)	3 (3.7%)	4 (3.0%)
<b>2014</b>	86 (6.2%)	14 (4.9%)	50 (4.7%)	2 (2.1%)	2 (1.3%)
<b>2015</b>	130 (8.0%)	18 (4.9%)	57 (4.9%)	5 (5.6%)	3 (2.3%)
<b>2016</b>	151 (8.0%)	22 (6.4%)	60 (4.9%)	2 (2.0%)	6 (3.9%)
<b>2017</b>	157 (6.8%)	17 (5.1%)	69 (5.3%)	7 (6.9%)	8 (5.0%)
<b>2018</b>	217 (7.9%)	21 (5.9%)	97 (7.3%)	5 (5.4%)	6 (3.4%)
<b>2019</b>	242 (7.8%)	27 (6.9%)	104 (7.3%)	4 (4.2%)	6 (3.5%)
<b>2020</b>	279 (8.6%)	41 (9.4%)	150 (9.2%)	4 (4.0%)	11 (7.4%)
<b>2021</b>	326 (9.1%)	32 (7.7%)	155 (8.8%)	11 (9.6%)	9 (6.6%)
<b>2022</b>	311 (8.1%)	39 (7.7%)	187 (9.5%)	5 (3.8%)	7 (4.7%)
<b>2023</b>	369 (9.3%)	46 (9.5%)	182 (10.1%)	6 (4.4%)	7 (4.5%)

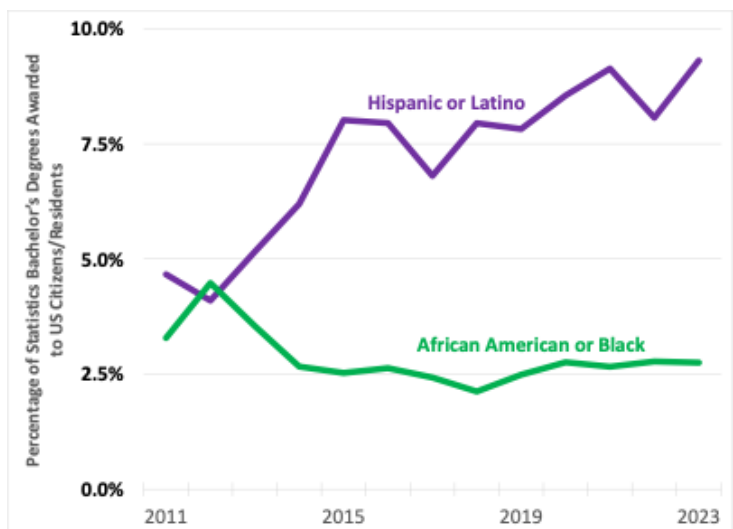
The National Center for Education Statistics has race and ethnicity data for the degrees granted to US citizens or residents but does not have such data for nonresident aliens. Table 6 shows the race and ethnicity breakdown of the US citizens and residents averaged for 2011–2023. For the five degrees—not including biostatistics bachelor’s for which the numbers are small—the percentage of degrees earned by those who report their race as American Indian or Alaska Native (AIAN) is essentially 0%. For those identifying as Asian (ASIA), the percentage is in the range of 18–27%. It is 3–5% for those identifying as Black or African American (BKAA). The percentage for individuals of Native Hawaiian or Other Pacific Islander (NHPI) descent is 0–1%. The percentage for those individuals who identify as white (WHIT) is 55–62% and, for individuals who report two or more races (2MOR), it is 1–4%. For those identifying ethnicity as Hispanic or Latino (HISP), the percentage is 4–8%. Finally, the percentage for those reporting race/ethnicity unknown (UNKN) is 3–9%.

To better understand the percentages in Table 6, consider Tables 7 and 8, which are time series for two under-represented minorities by degree level. For African Americans or Blacks who are US citizens or permanent residents, the number of doctoral degrees earned are in the single digits and roughly static as a percentage of overall degrees awarded to US citizens or permanent residents. For the bachelor’s level, there seems to be an increase in the number of degrees, but not an increase in the percentage of overall degrees earned by US citizens or permanent residents (see Figures 7 and 8).

For Hispanics or Latinos, the doctoral numbers are in the single digits, with little or no movement over the decade. For bachelor’s and master’s in statistics, the numbers are increasing and, as a percentage, also seemingly increased from 2011–2013, as shown in Figures 7 and 8 for bachelor’s degrees. ■



**Figure 7:** Number of statistics bachelor’s degrees earned by African American/Black, Hispanic/Latino who are US citizens or permanent residents. Source: Compiled from the National Center for Education Statistics Integrated Postsecondary Educational Data System



**Figure 8:** Percentage of statistics bachelor’s degrees awarded to US citizens/residents who are African American/Black, Hispanic/Latino. Source: Compiled from the National Center for Education Statistics Integrated Postsecondary Educational Data System



## TIME SERIES

# This Month in Statistics History

Penny S. Reynolds, University of Florida College of Medicine

**H**appy 185th birthday to the American Statistical Association! In 1839, William Cogswell, Richard Fletcher, John Dix Fisher, Oliver WB Peabody, and Lemuel Shattuck organized the ASA to collect, preserve, and diffuse statistical information in the different departments of human knowledge. The first annual meeting was held in Boston on February 5, 1840. The first international member was Adolphe Quetelet. The first honorary female member was Florence Nightingale in 1875. The society began publishing its journal in 1888.

**1656** Edmund Halley is born. Although best known for his comet, he also worked on ideas later pursued by de Moivre such as actuarial statistics and life tables. His life tables and suggestions for practical application were based on good demographic records for Breslau.

**1733** The normal curve is invented. Abraham de Moivre (1667–1754) publishes a pamphlet with the title *Approximatio ad Summam Terminorum Binomii  $(a + b)^n$  in Seriem expansi* [*Approximation of the Sum of the Terms of the Binomial  $(a + b)^n$  Expanded into a Series*]. It was translated from Latin into English for his 1738 book *The Doctrine of Chances*.

**1807** William Farr is born. President of the London Statistical Society (now the Royal Statistical Society). Best known as collaborator with Florence Nightingale and one of the founders of medical statistics.

**1815** George Boole is born. He is best known for his system of Boolean logic. In 1937, Claude Shannon demonstrated how Boolean algebra could optimize electromechanical relay system design, fundamental to modern digital computing.

**1851** Jacques Bertillon is born. Physician, statistician, demographer, son of statistician Louis-Adolphe and brother of Alphonse, creator of the Bertillon biometric method, and inventor of the mugshot.

**1857** Katharine Coman is born. Professor at Wellesley College; noted historian, economist, sociologist, social activist. First US woman to teach statistics. (Before 1900, Wellesley was the only American women's college to offer statistics courses.)

**1869** Arthur L. Bowley is born. Royal Statistical Society president from 1938–1940. Appointed in 1919 to one of the first chairs of statistics in the UK.

**1882** Louis I Dublin is born. ASA Fellow 1916, ASA president 1924. Best known for using data to inform public health, he conducted sophisticated early epidemiological studies on typhoid, scarlet fever, tuberculosis, and US maternal death rates.

**1891** Karl Pearson begins the first of his 38 Gresham College lectures on statistics. The lectures were the basis of his statistical theories, resulting in his first two published statistical papers and the creation of his biometric school.



Karl Pearson

**1896** Winifred A. Mackenzie is born. First winner of the Royal Statistical Society Frances Wood Memorial Prize. Studied economic statistics with Arthur Bowley. Best known for her work at Rothamsted, including the first systematic description of ANOVA co-authored with R. A. Fisher in May 1923.

**1912** Wilson Allen Wallis is born. ASA Fellow 1948, 60th ASA president 1965. Dean, University of Chicago Graduate School of Business; president, University of Rochester. Economics adviser to four US presidents: Eisenhower; Nixon; Ford; and Reagan.

**1914** George B. Dantzig is born. National Medal of Science winner in 1975, he is known as the father of linear programming. The premise of the movie *Good Will Hunting* is based on his story of arriving late to a lecture by Jerzy Neyman, seeing two problems on the blackboard, and thinking they were a homework assignment. Six weeks later, Neyman came banging on his door when he was still in bed to tell him he had solved two of the most famous unsolved problems in statistics.



**1917** Leonard “Jimmy” Savage is born. US Guggenheim Fellow 1951; IMS president 1957. Founder and chair of the Chicago statistics department. Best known for introducing Bayesian hypothesis tests and estimation methods, leading to what Kruskal later called “difficulties” with anti-Bayesian colleagues.

**1917** Elizabeth L. Scott is born. Institute of Mathematical Statistics Fellow. Best known for application of statistical methods to problems in astronomy, meteorology, and status of women in academia. In 1992, the Committee of Presidents of Statistical Societies established the Elizabeth Scott Award, which is presented every two years at the Joint Statistical Meetings.



Elizabeth Scott

**1918** Beatrice S. Orleans is born. ASA Fellow 1979. US Naval Sea Systems Command chief statistician. Best known for her 1978 development of a Bayesian sequential testing methodology for assessing the reliability and cost effectiveness of naval defense systems (her name is buried in the back of the report) and application of designed experiments for evaluating maintenance effectiveness of technical manuals.

**1921** R. A. Fisher ushers in modern mathematical statistics with a paper read to the Royal Society of London, “On the Mathematical Foundations of Theoretical Statistics.” He proposes a unifying theory of statistics with the focus on problems of estimation and distribution; clarifies the difference between parameter and statistic; introduces key criteria of

consistency, efficiency, and sufficiency; and provides new terms and definitions, including those for estimation and likelihood.

**1922** Claus A. Moser is born. ASA Fellow 1965. Professor of social statistics and director of the Central Statistical Office. He interned during WWII and became interested in social statistics when a mathematician in the camp set up a ‘statistics office.’ He liked to call himself a “non-mathematical statistician” and said he never got over the sheer terror he felt when Maurice Kendall ordered him to teach a course on ANOVA despite his protests that he knew nothing about it. Kendall said that was why he should do it.

**1926** Shirley Kallek is born. ASA Fellow 1972; Chief Economic Census staff, US Census Bureau; 7th president of the Caucus for Women in Statistics; Washington Statistical Society president 1980.

**1927** Hirotugu Akaike is born. ASA Fellow 1981. Best known for the Akaike information criterion.

**1927** Albert Turner Bharucha-Reid is born. Dean, A&S Wayne State University; distinguished professor, Georgia IT. Best known for work on probability theory, Markov processes, and stochastic epidemic models. National Association of Mathematicians named a lecture series in his honor.

**1932** Ramanathan Gnanadesikan is born. ASA Fellow 1968, president of the Institute of Mathematical Statistics, International Association for Statistical Computing. Best known for work on factor analysis, multivariate analysis, and data visualization methods (particularly the Q-Q and P-P plots).

**1934** David L. Sackett is born. Appointed first chair of the Cochrane Collaboration. His 1996 article in *BMJ* explicitly defined evidence-based medicine. Founder, first department of clinical epidemiology in Canada at McMaster University and Oxford Centre for Evidence-Based Medicine.

**1936** Alan Turing reads his paper, “On Computable Numbers,” in which he introduces what he called the “a-machine” (automatic machine), to the London Mathematical Society. His doctoral adviser Alonzo Church later called it the “Turing machine.”

**1937** Joseph L. Fleiss is born. ASA Fellow 1973, ENAR president 1986. Best known for development of the intraclass correlation coefficient and inter-rater reliability.



UNIVAC I predicts US presidential 1952 election results for CBS, with John Presper Eckert and Walter Cronkite. Photo Courtesy of Wikimedia Commons

**1952** The Universal Automatic Computer, UNIVAC I, mainframe computer at the US Census Bureau correctly predicted the 1952 US presidential election results. Because it contradicted Gallup poll results, CBS news anchors, including Walter Cronkite, thought UNIVAC wasn’t working. The success of this event dramatically increased public awareness of computer technology. It was Navy mathematician Grace Murray Hopper who programmed UNIVAC. ■

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the resources  
PDF from [bit.ly/4eENAb](https://bit.ly/4eENAb).



# Welcome TO OUR NEWEST MEMBERS

Emad M. Abdurasul  
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Seun Adegboyega Adejumo  
Tolulope Samuel Adeyina  
William Ofosu Agyapong  
Isaac Ahor  
Mcbeth Ahortor  
Ayat Mohammad Almomani  
Amani Alrumayh  
Bright Bright Ameyo  
Duke Appiah  
Christopher Armstrong  
Filippo Ascolani  
Prakul Asthana  
Andrew David Atkinson  
Richard Avoi  
Megan Ayers  
Raymond Azadda  
Douglas Andrew Baals  
Day Baez  
Sanjana Bajaj  
Bethany D. Bengs  
Poossenjeet Bhattacharya  
Jessica Lynn Bidon  
Emily Buhnerkempe  
Yumeng Cao  
Clark C. Challis  
Christina Chan  
Ting-Hsuan Chang  
Tatiana Chavez  
Shizhe Chen  
Xinlei Chen  
Yuji Chen  
Edward K. Cheng  
Y.J. Choi  
Heidi Christ-Schmidt  
Melissa Cidade  
Tom James Clark  
Adrian Coles  
Marta Victoria Colon  
Robert H. Crouse  
Chanell Cunningham  
Kalpana Das  
Joao Vitor De Alvarenga Ferreira  
Jingwen Deng  
Xiaoxu Deng  
Melody Denhere  
Danica Diva  
Jeffrey P. Dotson  
Chenyang Duan  
Yoonie Dunham  
Beliz Erdogmus  
Webster Estime  
Xiao Fang  
Victor Emmanuel Feagins  
Jeremy Ronnie Arrington Flood  
Amy Folkestad  
Caleb S. Fox  
Abigail J. Freeman  
Gabrielle E. Friedman  
Kanako Fuyama  
Saumya Gangwal  
Jie Gao  
Jimena Garcia  
Amira Gbagba  
Vivian Xue Geng Geng  
Amanda Elswick Gentry  
Nivya George  
Konstantin Golobokov  
Dakota Nobuyuki Goto  
Raphael Gottardo  
Sneha Govande  
Sawyer Griffy  
Atharva Gulvadi  
Richard Guo  
Garret Guthrie  
Yizhe He  
Nilesh Hegde  
Jayce E. Helpley  
Angelin Hernandez  
Gracie Jane Hufft  
Brayden Rich Humpherys  
Ava Hunn  
Kepler Huntress  
Nnenna Ifeanyi  
Rabia Iftikhar  
Ryan Irvine  
Tahmidul Islam  
Adam H. Izzedein  
Benjamin Jepson  
Xinyan Jiang  
Jue Jin  
Yiqiao Jin  
Samantha John-Aloye  
Mikel Jones  
Thomas Kalfas  
Noah S. Kan  
Venkata Sravan Kumar Kanukolanu  
Nathan Charles Kenny  
Yaelim Yaelim Kim  
Arielle King  
Timothy Kizza  
Joseph Kobi  
Prasanthi Kodthala  
Abby R. Koenig  
Neo Kok  
Likhitha Kolla  
Ali Kozehtaran  
Tyler Jay Krackow  
Hrishikesh P. Kulkarni  
Gbenga Ladapo  
Catherine Lamoreaux  
Christiaan F. Le Roux  
Seoyeon Lee  
Natalie Ann LePera  
Aihua Li  
Jiaowei Li  
Shaoyu Li  
Wentao Li  
Xuran Li  
Yumeng Li  
Xiaolan Liao  
Xiyue Liao  
Yuan Liao  
Daniel Ty Lim  
Enci Liu  
Lucy Liu  
Allen Lu  
Sophia Lu  
Angelina Lugo  
Vladislav Vasilievich Lukonin  
Charles Luo  
Justine Ma  
Xiaoyi Ma  
Sophia Maron Schaeffer  
Octavio Martinez  
Kenichiro McAlinn  
Daniel McGarr  
Torbet McNeil  
Volodymyr Melnykov  
Matthew Membreno  
Elise A. Miller  
Sarah L. Milligan  
Tracy L. Morris  
Robert Leavitt Morrison  
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Ashley Moss  
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Reese Mullen  
Shreeya Musyaju  
Shivani Nanda  
Yoel Y. Nasi Kazado  
Shimmy Nauenberg  
Sankhepo Ndhlovu  
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Sara Neequaye  
Don Nguyen  
Mason Alexander Nguyen  
Ning Ning  
Michelle Nwanna  
Eric Ohemeng  
Lukmon Abiola Olayinka  
Allison Lydia Owens  
Akua Owusu  
Ioanna Papatsouma  
Kabir Ajaybhai Patel  
Dola Pathak  
Mahatelge S. Peiris  
Marisa Person  
Chandra Stephanie Pettiford  
Mai Pham  
Miguel Picazo  
Ramiro Hernan Polanco Contreras  
Brandon Powers  
Erik P. Pulkstenis  
Soumik Purkayastha  
Huma Qasim  
Yunhui Qi  
Husneara Rahman  
Ananya Ramesh  
Medha Rao  
Sharada Rao  
David Rice  
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Francisco Rodriguez  
Isabel Arianna Rodriguez  
Derrick Rollins  
Jessica Romero  
Natalie Cheung Rotelli  
Chaturia Rouse  
Thomas W. Sager  
Arkajyoti Saha  
Priom Saha  
Jeffrey E. Schmidt  
Stephen C. Schroepfel  
Andrew Schuck  
Jasmine Sen  
Wanying Shao  
Saad Shebrain  
Candus Shi  
Bailey Sims  
Pritibha Singh  
Caleb Skinner  
McKenzie Skrastins  
Adam Smith  
Fady Soliman  
Sheryl P. Solorzano  
Ian Jhemes/Ian Sousa  
Cassandra Sperow  
Abby Stevens  
S. Lynne Stokes  
Samantha Stubblefield  
Felesia Stukes  
Joshua Sukumar  
Hui Sun

Yuyue Sun  
Lucia Tabacu  
Shahida Tabassum  
Edric Tam  
Wenxi Tan  
Wai Li Teng  
Jizhou Tian  
Yuan Tian  
Minh Anh To  
Charlotte Toolan  
Brenda Carolina Torres Velasquez  
Vijay Kumar Reddy Voddi  
Chelsea Wang  
Hao Wang  
Hongkun Wang  
Kaiwen Wang  
Siqi Wang  
Y. Samuel Wang  
Yuanyuan Wang  
Zhongkai Wang  
Caitlin Ward  
Amelia E. Warren  
Anne Nyarotso Waswa  
Nathan R. Weed  
Donovan E. Weekley  
Yaqiao Wei  
Jordan Wilson  
Beamlak Woldeab  
Rachel Wong  
Pierce E. Wood  
Haibo Wu  
Krystal Wu  
Tao Wu  
Tingqing Wu  
Gary Wyland  
Jinxin Xu  
Yang Xue  
Dan Yang  
Feichun Yang  
Miranda Yang  
Felix Yeboah  
Michael Yingling  
Kiyotaka Yoshida  
Godwin Yuen Han Yung  
Emily Zhang  
Hanwen Zhang  
Liangliang Zhang  
Pengyue Zhang  
Shanyu Zhang  
Tong Zhang  
Xuan Zhang  
Yu Zhang  
Peng-Liang Zhao  
Yunpeng Zhao  
Yao Zheng  
Yunzhe Zhou

## New Member Spotlight: CHRIS BURGER

This month, we welcome Chris Burger, who answered the following questions so we could get to know him better:

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

Early in my undergraduate program, I was in a physics class where we discussed the idea of uncertainty in experimental measurements. I found thinking about the uncertainty in our experiments more interesting than the experiments themselves and was hooked from then on. I took every statistics class I could find and ended up changing my major and continuing into graduate school.



Chris Burger

### What do you consider your dream job?

I have been drawn toward something like being a consulting statistician for academic research. I like working with researchers from all kinds of disparate fields and seeing all the interesting things they get up to while being able to meaningfully contribute to all this very different research through discussions on things like experimental design or data analysis.

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

Helping others make their work more productive and impactful. A good understanding of statistics can help us provide the advice needed to guide others in performing reliable, repeatable research in addition to saving them valuable time and money.

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

I would love to hear from people who manage to do a lot of cross-disciplinary work and use their statistical expertise to assist those in research or industry.

### What is your favorite hobby?

Birdwatching, followed closely by weightlifting.

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

My favorite bird is the brown pelican. ■





## Diversity in Backgrounds, Careers a Major Theme in Survey of Master's Graduates

Steve Pierson and Kiana Moore

The 2023 statistics and biostatistics master's graduates who responded to the ASA follow-up survey in spring 2024 came to their graduate program with undergraduate majors in 45 fields and then—in an embodiment of John Tukey's quote, "The best thing about being a statistician is that you get to play in everyone's backyard"—diverged into careers and studies in a variety of sectors, regions, and fields.

As in past years, this year's respondents have an unemployment rate in the range of 3–5% and the salaries are generally higher than three years prior. Similarly, job satisfaction rates remain high.

This year's survey was updated to reflect changes spurred by the maturation of data science and wider use of machine learning and artificial intelligence.

The survey results provide insights into the work being done by statistics, biostatistics, and data science graduates—including the variation thereof—and the types of jobs they are obtaining. In addition, the results will be especially beneficial to those who review the free responses of the survey participants, who shared their experiences, reflections, and advice.

The ASA also surveyed 2023 bachelor's graduates in statistics and biostatistics. A similar report based on their responses will appear in the December issue of *Amstat News*.

### Survey Respondents

Responding to the survey and indicating they earned a master's degree in statistics, biostatistics, or a related field during the 2022–2023 academic



year (hereafter noted as 2023 graduates) were 337 individuals. Not all completed the entire survey. Of the 270 responding to the gender question, 40% identified as women, 59% men, and 1% other. The median age of the respondents was 25 and the mean age was 27.3.

Of the 273 students providing citizenship status, 61% were US citizens and 3% were permanent residents (green card holders). Sixteen percent had the Optional Practical Training visa, 3% an H1-B visa, and 14% another temporary visa. For respondents who are not US citizens and provided country of citizenship, 65 are from China, 10 from India, 6 from Ghana, 5 from South Korea, and the remaining 18 from 14 other countries. Respondents were not asked for race or ethnicity information.

The respondent demographics of this survey can be compared to that of the overall master's graduates in statistics and biostatistics reported by the National Center for Education Statistics for the most recent year for which data are available (2023). There were approximately 4,000 statistics and 1,100 biostatistics master's graduates in the US in 2023. Of these, 43% of statistics and 61% of biostatistics master's recipients were women. US citizens and permanent residents are also overrepresented in this survey's respondents, as they have only accounted for 44% of the overall master's degrees in recent years.

Documenting the wide draw of statistics and biostatistics master's programs, 389 respondents reported 45 bachelor's degree fields. The most common were mathematics- and statistics-related degrees. Forty percent of the respondents had an undergraduate degree in a field other than mathematics and statistics, the most common being biology and economics (Table 1).

Master's graduates from nearly 78 departments participated in the survey, the most represented being University of Michigan statistics (24), Texas A&M University (23), University of Michigan biostatistics (22), University of Illinois at Urbana-Champaign statistics (19), Columbia University statistics (17), Duke University biostatistics (13), University of California at Davis statistics (12), New York University statistics (10), University of Wisconsin-Madison statistics (10), University of Kansas Medical Center statistics (8), University of Virginia statistics (8), San Diego State University statistics (7), and The University of Texas Health Science Center at Houston statistics (7).



**Table 1: Bachelor's Degree Field (Math- and Statistics-Related Fields Listed First)**

Undergraduate Major	n
<b>Mathematics</b>	89
<b>Statistics</b>	69
<b>Applied Statistics</b>	32
<b>Data Science</b>	16
<b>Actuarial Science</b>	10
<b>Statistics &amp; Machine Learning</b>	8
<b>Biostatistics</b>	6
<b>Business Analytics</b>	2
<b>Economics</b>	29
<b>Biology</b>	21
<b>Biochemistry/Chemistry</b>	15
<b>Computer Science</b>	13
<b>Other</b>	11
<b>Psychology</b>	6
<b>Engineering, Mechanical</b>	5
<b>Political Science</b>	5
<b>Physics</b>	4
<b>Sociology</b>	4
<b>Accounting</b>	4



**Table 2: Post-Degree Outcome**

	N	Percent
<b>Employed (full and part-time)</b>	201	60%
<b>Student</b>	93	28%
<b>Unemployed Seeking</b>	18	5%
<b>Left US</b>	17	5%
<b>Other</b>	8	2%

**Table 3: Median and Quartile Salary by Gender**

	n	Quartile 1 (\$K)	Median (\$K)	Quartile 3 (\$K)
	143	68.2	81.3	104.3
<b>Female</b>	59	66.6	78.7	95.0
<b>Male</b>	81	72.0	85.0	110.0

**Table 4: Specific Field of Master’s Degree and Median Salary for n>5 (N Is the Total Number of Respondents Indicating That Field, n of Which Provided Their Salary)**

Master’s Degree Field	N	Salary – 2023			
		n (female)	Median (\$K)	Female (\$K)	Male (\$K)
<b>General Statistics</b>	104	45 (9)	80.0	105.0	80.0
<b>Applied Statistics</b>	73	33 (15)	76.0	68.0	105.0
<b>Statistics and machine learning</b>	26	13 (2)	90.0		
<b>Data Science</b>	16	14 (4)	85.0		
<b>Informatics</b>	1				
<b>Biostatistics</b>	97	49 (26)	80.0	83.5	77.0
<b>Math, with stats focus</b>	10	6 (3)	106.4		
<b>Data science</b>	24	14 (4)	85.0		
<b>Other</b>	3				

The respondents were generally either employed or continuing their studies. Of the 337 who provided their employment and enrollment status as of March 4, 2024, 201 reported themselves as employed—191 full-time, 10 part-time—and nearly a third as a student, as shown in Table 2. Eighteen of these respondents (5.3%) reported themselves as unemployed and seeking. The corresponding unemployment rates for the 420 class of 2018 graduates was 3.6%; the 403 class of 2020 graduates was 3.7%.

### Employed

For the 143 full-time employees who reported their annual salary, the median was \$81.3k, as shown in Table 3, which is also broken down by gender. While this amount is more than that of the 2020 master’s cohort median of \$75k, these salaries are a small sample of the total population and should be analyzed with caution. Salaries tend to depend on the master’s specific field. We also recommend against drawing conclusions on gender salary comparisons because of the limits of our results.

The next three tables show the median salaries as broken down by specific field of the master’s degree (Table 4), employment sector (Table 5),

**Table 5: Employment Sector with Median Salary by Gender for n>4**

SECTOR and subsector	n (Female)	Median Salary (\$K)		
		Overall	Female	Male
<b>Educational institution</b>	39 (20)	68.0	63.8	68.0
-Four-year college or university	18 (7)	65.0	66.5	65.0
-University-affiliated research center	18 (11)	70.0	70.0	72.5
<b>Private sector</b>	86 (24)	95.0	92.5	92.0
-Company or business	75 (22)	95.0	95.0	95.0
-Government contractor	5 (0)	98.8		98.8
-Consulting	6 (2)	78.0		76.0
<b>Government</b>	17 (6)	90.0	74.8	96.0
-Civilian government	14 (5)	75.3	71.0	84.0
-Government lab	2 (1)			
-Active military	1 (0)			
<b>Non-profit organization</b>	7 (5)	87.9	87.9	95.5
<b>Hospital or medical facility</b>	11 (2)	79.0		87.5
<b>Other</b>	2 (2)			

**Table 6: Median Salary by State for n>4**

State	n	Median (\$K)
<b>California</b>	18	88.5
<b>Colorado</b>	10	84.5
<b>Florida</b>	4	92.5
<b>Illinois</b>	6	105.0
<b>Iowa</b>	4	70.0
<b>Maryland</b>	4	87.5
<b>Massachusetts</b>	10	111.0
<b>Michigan</b>	10	63.0
<b>Missouri</b>	4	110.0
<b>New York</b>	7	95.0
<b>North Carolina</b>	5	92.0
<b>Texas</b>	12	79.7
<b>Utah</b>	4	77.5
<b>Virginia</b>	10	102.5
<b>Washington</b>	7	67.1

and state (Table 6). For the first two tables, N is the total number of respondents from the class of 2023 who reported that category, “n” is the subset who reported salary, and the number in parentheses is the number of n who are female.

Median salaries varied substantially by state, as shown in Table 6, likely explained in part by the employment sector of the respondents in that state.

As was the case previously, numerous and diverse companies hired master’s graduates into positions with a wide assortment of job titles. For the 161 employed respondents who provided the name of their employer, there were 142 unique names. Similarly, there were more than 101 unique—although similar—job titles. The most common were data scientist (15), data analyst (13), biostatistician (9), and statistician (8).

**Table 7: Frequency of General Work Skills**

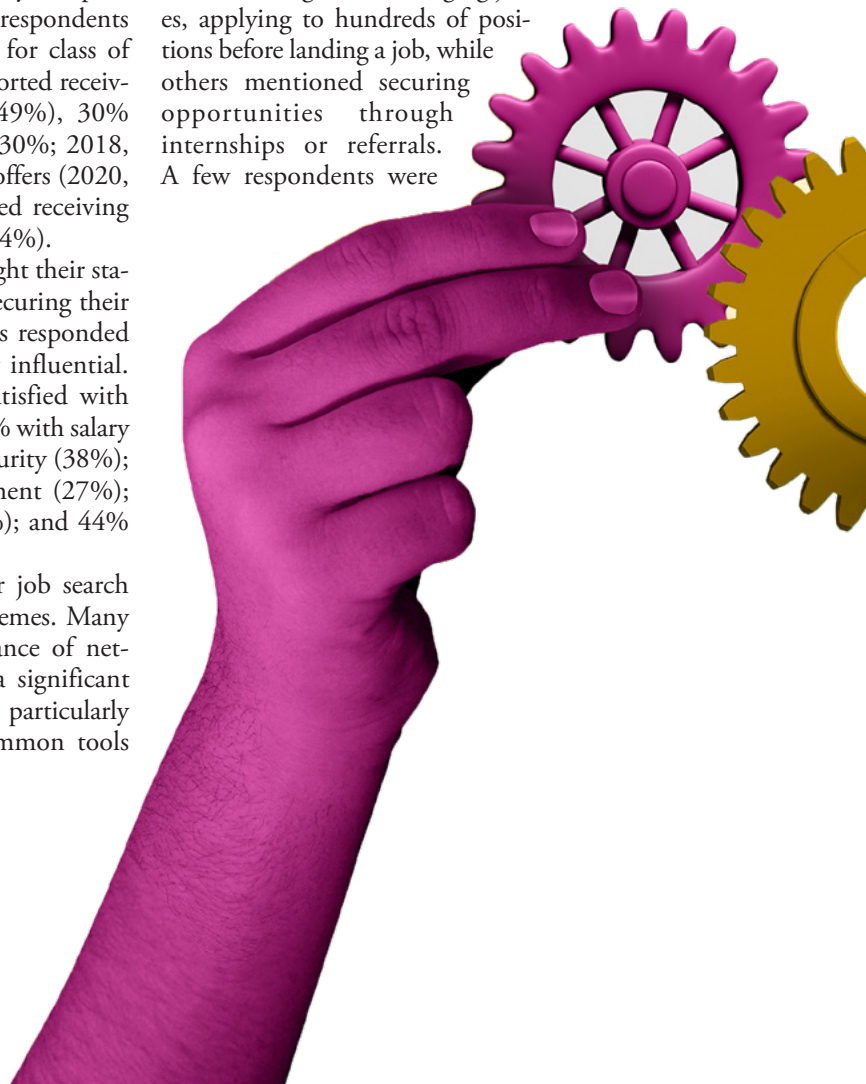
Question	Rarely or Never	Monthly	Weekly	Daily	Total
<b>Work on a team</b>	5.4%	8.1%	34%	53%	185
<b>Teaching</b>	66%	18%	8.6%	7.0%	185
<b>Public speaking</b>	44%	29%	20%	8.0%	184
<b>Work with customers or clients</b>	43%	18%	21%	19%	183
<b>Manage people</b>	77%	6.6%	10%	6.0%	174
<b>Manage projects</b>	25%	14%	20%	41%	181
<b>Manage finances or budgets</b>	83%	8.3%	5.0%	3.9%	180
<b>Manage databases</b>	56%	18%	14%	13%	176
<b>Perform quality control</b>	32%	17%	23%	29%	181
<b>Solve technical problems</b>	5.0%	7.7%	14%	73%	181
<b>Technical writing</b>	22%	33%	28%	17%	183
<b>Non-technical writing</b>	21%	22%	27%	30%	182

Respondents were also asked the number of job offers they had received at the time they accepted their position. Five (2%) of the 185 respondents reported not receiving an offer (4% for class of 2020, 5% for class of 2018), 56% reported receiving one offer (2020, 51%; 2018, 49%), 30% reported receiving two offers (2020, 30%; 2018, 27%), 8.6% reported receiving three offers (2020, 10%; 2018, 13%), and 4.3% reported receiving four or more offers (2020, 5%; 2018, 4%).

For how influential graduates thought their statistics-related master's degree was in securing their current position, 29% of respondents responded influential, with 63% reporting very influential. Forty-one percent reported being satisfied with their position (37% very satisfied); 44% with salary and benefits (23%); 41% with job security (38%); 34% with opportunity for advancement (27%); 37% with intellectual challenge (32%); and 44% with level of responsibility (30%).

Respondents' descriptions of their job search experiences reveal several recurring themes. Many respondents highlighted the importance of networking, with connections playing a significant role in securing positions. Job boards, particularly LinkedIn and Indeed, were also common tools

used in the job search process. Most respondents described long and challenging job searches, applying to hundreds of positions before landing a job, while others mentioned securing opportunities through internships or referrals. A few respondents were





**Table 8: Frequency of Research, Statistical, and Other Technical Skills**

Question	Rarely or Never	Monthly	Weekly	Daily	Total
Use statistics or advanced math	12%	14%	22%	52%	178
Analyze and interpret data	5.6%	5.1%	12%	78%	178
Query databases	15%	17%	19%	49%	177
Use or develop statistical models	22%	25%	19%	35%	177
Design experiments	61%	23%	9.7%	6.2%	176
Survey research	65%	17%	13%	5.1%	176
Programming or systems software	10%	4.6%	8.6%	77%	175
Tech support or computer administration	82%	9.7%	4.0%	4.0%	176
Use machine learning models	42%	24%	19%	16%	178
Develop machine learning models	59%	22%	7.3%	11%	177
Use generative AI algorithms	70%	15%	6.2%	9.6%	178
Data cleaning	15%	9.1%	27%	49%	176
Data processing	12%	12%	22%	54%	176
Develop AI algorithms	83%	9.6%	2.8%	4.5%	178



already employed and did not undergo an extensive job search.

The survey sought to understand the nature of the work undertaken by master's graduates. Seventy-three percent reported solving technical problems daily and 53% reported working on a team as often, as shown in Table 7. At least 25% of respondents reported engaging in quality control, project management, and non-technical writing daily. One in six reported giving

two formal presentations in a typical month, while two-thirds said one at most.

The most frequently reported technical skills being used were analyzing and interpreting data (78% daily) and programming or systems software (77%), as shown in Table 8. About half the respondents reported doing database querying, data cleaning, and data processing or used statistics or advanced math daily. The next most frequently reported skill done at least weekly was statistical model use or development at 55%. This year's survey asked questions related to machine learning or AI for the first time. Sixteen percent of respondents reported using machine learning models daily and 11% reported developing them daily. Ten percent said they use AI generative algorithms daily and 5% reported developing AI algorithms daily.

**MORE ONLINE**  
For supplemental material that accompanies this article, visit the online version at [bit.ly/48fOZCt](https://bit.ly/48fOZCt).



**Table 9: Frequency of Statistical Programs/Software Use**

Question	Rarely or Never	Monthly	Weekly	Daily	Total
<b>R</b>	28%	22%	16%	34%	173
<b>SAS</b>	61%	12%	9.4%	18%	161
<b>Excel</b>	17%	14%	25%	44%	174
<b>Python</b>	42%	18%	9.8%	30%	169
<b>Java</b>	98%	0%	2.3%	0%	163
<b>SQL</b>	42%	13%	12%	32%	173
<b>Tableau</b>	80%	11%	6.4%	3.5%	171
<b>Other</b>	52%	12%	18%	18%	50

**Table 10: Percent of Respondents Using Programs/Software Packages Daily by Master’s Discipline**

	Applied Statistics	Biostatistics	General Statistics	Statistics & ML	Data Science
<b>Excel</b>	62% (37)	39% (49)	39% (51)	43% (14)	40% (15)
<b>Python</b>	27% (37)	16% (49)	32% (50)	57% (14)	47% (15)
<b>R</b>	24% (37)	47% (49)	40% (50)	21% (14)	20% (15)
<b>SAS</b>	5% (37)	37% (49)	12% (49)	8% (13)	20% (15)
<b>SQL</b>	24% (37)	18% (49)	32% (50)	93% (14)	53% (15)

\*The number in parentheses is the approximate number of responses for each category.

The top software programs in terms of daily use were Excel (44%), R (34%), SQL (32%), Python (30%), and SAS (18%), as shown in Table 9. For the write-ins in the “Other” category, Bash, Power BI, and STATA were each mentioned. Daily use of the top four software programs varies—sometimes widely—by master’s discipline, as shown in Table 10. Those with an applied statistics master’s specialization tended to report using Excel most often, while those with data science specializations used Python and SQL most often. Biostatistics master’s reported using SAS more often than others do.

### Students

Of the graduates enrolled in a full-time degree program, 85 were in a doctorate program, five in a master’s, and five in other programs. Twenty-three of these were in a statistics program, 35 in biostatistics, and three in data science. Of the 34 in other fields of study, the following programs each had two or more respondents enrolled: education (5); computer science (2); economics (2); computer engineering (2); electrical engineering (2); logistics/management (2); medicine/nursing (2); and psychology (2). Twenty-seven of the students in a biostatistics doctoral program also earned their master’s in biostatistics, 18 for statistics.

### Master’s Studies and Job Search Experiences

Respondents were generally satisfied with their master’s degree training. Ninety-three percent of respondents reported they agreed their master’s program prepared them to effectively analyze and interpret data critically using statistical models, with 57% strongly agreeing. Eighty-nine percent agreed their master’s program prepared them to effectively analyze and interpret data critically using computational methods, with 49% strongly agreeing. Eighty-one percent agreed their program prepared them to effectively communicate, both orally and in written form, results of statistical analyses to a variety of audiences, with 39% strongly agreeing.

As in past years, the responses from graduates provided in the open-ended questions are varied, insightful, and useful to current and prospective students. They can be found in the supplemental materials list in *Amstat News* online.

The responses to what respondents might do differently regarding their master’s education reveal a range of perspectives. Several themes emerged across the 134 responses, including regret over not pursuing more internships, networking opportunities, or specific skill development. Many respondents expressed

a desire to focus more on technical skills such as SQL, programming, and cloud certifications. Some regretted not pursuing a different field or educational track such as earning a PhD or switching majors altogether. A portion of the respondents indicated satisfaction with their choices and said they wouldn't have changed anything.

The responses about the types of experiences, training, or qualifications that would have helped graduates secure a position reflected a strong focus on practical skills and real-world work experience. Internships were frequently mentioned, alongside a desire for more exposure to industry-relevant tools and networking opportunities. Some respondents highlighted technical skills, such as programming and data analytics, as crucial to increasing their job prospects.

The responses about additional technical or nontechnical skills regularly used in their current positions highlighted a variety of commonly used tools and skills. A significant number of respondents mentioned technical skills, including programming languages and software. Others indicated no additional skills worth noting. Project management and cloud computing also emerged as key areas for some individuals. Skills such as communication, writing, and clinical trials knowledge were mentioned but not repeated as frequently as programming skills.

The responses regarding experiences with on-campus career counseling centers reveal mixed feedback. Most respondents found the services helpful for résumé building and job search skills, but others thought the support was minimal or ineffective, particularly when it came to networking and securing job opportunities. There was a general sense that the career centers were better suited to students in certain fields, earlier in their career, or those seeking general résumé advice. A few respondents mentioned career fairs as useful, though some thought they did not lead to tangible results.

The responses about non-university programs participants engaged in demonstrate a wide range of certifications, online courses, and self-study topics. Many respondents mentioned using popular platforms such as Coursera, Udemy, DataCamp, and AWS bootcamps to enhance their data science, programming, and machine learning skills. Some pursued more formal certifications, such as SAS or actuarial examinations.



## Survey Administration

The American Statistical Association contracted the American Institute of Physics research team for the survey of both bachelor's and master's graduates in statistics and biostatistics in 2023. The ASA provided department names and contacts for the departments granting statistics or biostatistics degrees according to our records.

For the master's graduates, the American Institute of Physics reached out to 232 departments, receiving the names and contact information for 1,921 master's graduates who received up to four invitations to participate in the survey.

Departments that did not provide contact information for graduates were asked to distribute survey invitations to their alumni.

The survey of 2023 graduates closely followed that of the classes of 2018 and 2020.

The ASA will conduct this survey again in two to three years. Please send suggestions for improving it to ASA Director of Science Policy Steve Pierson at [spierson@amstat.org](mailto:spierson@amstat.org).

The open-ended responses regarding additional comments and advice for current students in statistics, biostatistics, or related fields centered on the importance of technical skills, internships, and long-term planning. Many respondents emphasized the need for programming proficiency and real-world experience to succeed in the job market. Others highlighted the value of pursuing internships and focusing on career goals early in their education. ■

**MORE ONLINE**  
The ASA examines the NCES degree completion data annually and posts the statistics and biostatistics data at [bit.ly/40acCdP](https://bit.ly/40acCdP).



# Practical Significance Take Two— Statistics in the Community (STATCOM)—Service in Action



Episode 45: Statistics in the Community (STATCOM)—Service in Action

## HOSTS



Ron Wasserstein



Donna LaLonde

## GUESTS



Annie Cohen



Hanna Venera

This interview with University of Michigan PhD candidates and STATCOM co-presidents Annie Cohen and Hanna Venera was conducted by *Practical Significance* co-hosts Donna LaLonde and Ron Wasserstein during a recent episode in which they discussed their participation in and vision for Statistics in the Community, or STATCOM. STATCOM is a student-run community outreach program that offers students a unique opportunity to apply their

statistical expertise by providing pro bono consulting services to community organizations.

**Donna LaLonde:** Hanna, tell us about STATCOM and some of its history as a program.

**Hanna Venera:** STATCOM is a really cool program where students can get involved in volunteering and outreach by using their statistical services in the surrounding community. We provide anything in the statistical process, except for data collection. For example, creating plots and visualizations and analyzing data. It can mean many different things and whatever these nonprofits in the community need from us.

STATCOM is a wonderful way for students to not only get hands-on experience with real-life, messy data, but it's a way to see the impact in the community around you, which is really valuable.

STATCOM was founded at the University of Michigan in 2006, and we've been going strong since then, which is really exciting. It started off in the biostatistics department, and we're lucky in that we have [had] a lot of students to keep it going throughout the years. But it started across a couple different universities, and we're hoping to continue that connection. It's a challenge to keep something going when its student led because of student turnover.

In terms of our goals, we're focused on outreach for the day-to-day project side, as well as connecting with other universities to get a program started.

**Ron Wasserstein:** Annie, what inspired you to take on the challenge of reinvigorating STATCOM?

**Annie Cohen:** We were actually lucky enough to step into this role following a really excellent leadership team headed by Stephen Salerno. He really developed the program into what it is today, and we



have been lucky enough to follow in his footsteps. But for me, having this tie to community partners and being able to apply what we're learning in the classroom to real-world data scenarios and helping community partners that don't have the resources or experience to run these analyses themselves has been really valuable. Gathering more students for this cause has been really important for my graduate experience.

### **Donna LaLonde: Speaking of the graduate experience, we know it is very busy. How do you balance the demands of STATCOM projects and your graduate studies?**

**Hanna Venera:** That's a really great question, because to your point, Donna, there's a lot of moving parts in graduate school. But from a project perspective, STATCOM really isn't an overwhelmingly large time commitment, which is typically 1–5 hours a week. And it really does fluctuate depending on where on the project timeline you might be. If you're wrapping up a deliverable for a client, it might be more of a time commitment that week than others.

What motivates me personally is really that community connection component. Part of the reason I got into biostatistics in the first place is I was struggling to find a place where math and people align. And STATCOM is a concrete way for me to keep finding time for it in my day-to-day life.

From the leadership team standpoint, I haven't found it to be a really big commitment in a time sense. We think a lot about how to sustain the organization and planning for the next semester and the future [of] the organization. But day to day, the time commitment isn't extreme, and it really does feel like a valuable way to spend time outside the classroom.

**Annie Cohen:** One thing that makes the leadership lift less heavy is having several people involved. That not only helps with how much time you spend, yourself, but also helps with that turnover component we talked about. So, knowing that when you leave, it's not all going to fall apart is

reassuring because you have people around you who are sharing that load, as well.

### **Ron Wasserstein: Would you share an example of a project you've worked on?**

**Annie Cohen:** We've spoken with multiple community partners who have been looking for this neighborhood-level data surrounding children's education in Detroit, and I'm currently leading a project with a couple of students and a Detroit-based nonprofit.

We are developing a Shiny dashboard to display publicly available data pulled from various sources at the ZIP code level for the Detroit area based on different variables the community partner has. So different education variables and things that are important and valuable to the community.

This Shiny app will be displayed on a website so families in Detroit can look at the data for their ZIP code and surrounding ZIP codes based on education and other markers of life experience.

This has been a really interesting project for me and exciting because it seems very useful for both the organization we're working with to assess their own programming within these communities, as well as allowing for Detroiters to view this data and gain their own insights.

**Hanna Venera:** I worked on a project last year with the Ann Arbor Hands on Museum and Leslie Science Center, which was an especially cool community partner. It was a place I walked by every day when I walked to campus. So, we partnered with them to figure out how they are able to serve the community, who they're serving, and how they can best improve those services from the data they've collected.

For example, much of the programming is geared toward children at the Ann Arbor Hands on Museum. They have school trips, and families will come in on the weekends, and they wanted to figure out what age groups they were serving, what kinds of programs are most effective, and how they could continue to serve their community in a way they could continue to connect the

#### MORE ONLINE

Watch the STATCOM 101 webinar hosted by Cohen and Venera at [bit.ly/4eRzJOe](https://bit.ly/4eRzJOe). Also, check out resource templates at [bit.ly/4gYumyq](https://bit.ly/4gYumyq) and slides at [bit.ly/4evVPpN](https://bit.ly/4evVPpN). Reach Cohen and Venera at [statcom-um@umich.edu](mailto:statcom-um@umich.edu).

Webinar



Resource Templates



Slides



membership to something they see value in. So, for example, one thing we explored was a reciprocity program where if you have a membership at some Chicago Museum, could you get into the Hands on Museum for a discount?

So, they were looking at partnerships that would be helpful to the community, as well as what kinds of quality measures they can do. For instance, is there a certain capacity that's something they need to spread out over time based on when people visit and how much time people spend in the museum? And so, we put that data together for them to figure out how to best proceed in the next couple of years in terms of marketing their membership and how they serve the community.

**Donna LaLonde: We've discussed the extrinsic benefits of STATCOM but tell us about the intrinsic benefits you and other students have gained from participating in STATCOM.**

**Hanna Venera:** One thing I believe is really neat about STATCOM is students across departments participate. It's really easy to get stuck in the department you're in and only surround yourself with those people.

The diversity of perspectives can be really healthy and eye-opening for many reasons. We cross so many different departments from the school of public health, like biostatistics, epidemiology, health behavior, health education, for example, and outside the school of public health, like statistics, bioinformatics, and survey methodology. So, it is a neat way from a networking and social perspective to meet other people in other departments and collaborate with them and see what other people are working on.

In addition, we've mentioned working with messy, real-world data—it's also really valuable to have experiences where you are communicating with a client who may not have the statistical expertise you do. So as a member of a STATCOM team, you're not only benefiting from a collaborative standpoint, but from a communication standpoint, as well. Yes, you

can analyze the data, which is great, but you can also talk about what it means with somebody who doesn't have that background.

**Annie Cohen:** I believe it's really valuable to hear from community partners. We have this statistical expertise, but they might have a more substantial expertise in some other areas and having that balance and learning from partners in that way can be really, really valuable. These relationships create a perspective we don't always get from the graduate programs we're part of.

As a leadership team, we try to create student groups for the projects. These teams have a balance of students from different departments, as well as different class levels. We focus on creating opportunities for graduate students. We still try to have a variety of senior PhD students, as well as first-year master's students—a good mix so older students can practice leadership skills on these projects and the younger students can observe and learn from them in terms of their leadership techniques and practical skills. It's a really wonderful exchange and opportunity for students to become leaders within these projects, as well.

**Ron Wasserstein: What is your long-term vision for STATCOM? How can our listeners get involved?**

**Annie Cohen:** Our main vision is to sustain our organization within the University of Michigan while also spreading the momentum to other institutions and uplifting them in whatever ways we can.

At the end of September, we held a STATCOM 101 webinar for interested students and faculty at other institutions to learn how to get started, how to reinvigorate a current program, and ways to sustain program momentum through the years with student turnover. We're passionate about applying our expertise with our community partners. ■

STATtr@k

# Former ASA Section Chair Shares Career, Leadership Journey

Bruce Binkowitz, Vice President of Biometrics, Arcutis Biotherapeutics

I greatly appreciate the opportunity to share my career journey, and particularly my journey in the Biopharmaceutical Section of the American Statistical Association. I have had, and continue to have, a wonderful career in the pharmaceutical industry.

Along the way, I have been fortunate to have a diverse suite of influencers among my managers, mentors, colleagues, and friends. I learned technical skills, methodology, management skills, and leadership skills. I also gained awareness of the importance of recognizing, participating in, and creating productive cultures. My journey has led me to educate myself beyond statistics and read about diverse topics such as behavioral economics and game theory to better understand how to work with and manage people. The unexpected learning opportunities are what have kept my career exciting.

I think there are two key themes intertwining the accumulation of my experience. First, never let yourself stagnate; once you can do a job well, it is time to add another skill. Challenge yourself, make yourself uncomfortable, and you will continue to evolve as a person and in your career.

Second, treat people like you want to be treated. Put your ego aside. For me, that includes respecting other people's skills, understanding there is rarely one 'correct way' of doing things, and what I call "focusing on the denominator." Let me explain.

Throughout my career, I have learned human beings focus on the numerator. For example, they focus on one mistake, while ignoring everything that has gone well. Some may know this as perfection is the enemy of good. Today's social media culture just exacerbates this trait. When I or someone else makes a mistake, my follow-up discussions

include all the parts of the job that are done correctly and what we can do to fix the mistake and learn from it.

Mistakes will happen, despite all the best efforts of management and a team. It is not fair to focus on the mistake out of context of all the good accomplishments. Mistakes as a rare event should not sidetrack anyone or any process but should help refine and improve. The mistake is the numerator, but never lose sight of all the good in the denominator making up the total effort.

It is this thinking, along with great advice from mentors, that led me to get involved in statistical societies, organizations, and associations. I joined the American Statistical Association while in my master's program and have been a member ever since. In the beginning of my membership, I attended various meetings, conferences, and workshops to network and continuously learn. I expressed interest, but didn't push, to join groups I thought were interesting. I was willing to do the menial work that would eventually be recognized by leaders who needed people to invest time in the statistical community outside of a day job.

Eventually, I joined different cross-company working groups under the umbrellas of many organizations. This meant I met a diverse group of people and learned about the opportunities in these organizations, learned skills from people beyond my company, made friends, and was ultimately offered minor leadership positions.

This slow build took patience and vision, but the planning paid off. I understood I didn't want to rise to positions I didn't feel qualified for, and I even turned down visible leadership positions in organizations and conferences until I felt I was ready. Once I did take on those roles, I was able to function as a leader across a variety of efforts.



**Bruce Binkowitz,**  
vice president  
of biometrics,  
Arcutis  
Biotherapeutics

#### MORE ONLINE

A version of this article originally appeared in the summer *Biopharm Report*, which you can find at <https://community.amstat.org/biop/biopharmreport>.



But Bruce, you ask, how do I initially get offered these positions? First, you know I can't hear you, right? But if I have guessed correctly, this is the part where you are looking for advice.

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## Demonstrate your value wherever possible.

There is no better way to become part of a group than for that group to want you to join because they recognize before you even start you will be value added to their effort.

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Network and indicate to those who have the decision power that you want to be involved and help. You may be lucky and someone in your company is in such a position. If so, reach out. You may have a friend from school who is in such a position. If so, reach out. You may know someone who knows someone. If so, leverage the connection. Demonstrate your value wherever possible. There is no better way to become part of a group than for that group to want you to join because they recognize before you even start you will be value added to their effort.

The best part of my statistical community journey has always been the people I meet. There are many intelligent and generous people within the statistical community willing to share their expertise. Ask questions; most people love to talk. When they do, listen.

Over the years, as my involvement grew, I began to want to put aside my service to other organizations and focus on the ASA, particularly the Biopharmaceutical Section. I became involved in the ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, first organizing sessions (and thereby meeting people at the organizing committee meeting), then serving on steering

## Takeaways

- Challenge yourself
- Treat others as you would like to be treated
- Focus on accomplishments, not mistakes
- Practice leadership from behind
- Leverage the opportunities of being a mentor and mentee

committees, and ultimately serving as the industry chair for the 2013 workshop.

I continued my efforts within the section, serving on committees and volunteering to take on roles that weren't glamorous but offered visibility and experience. I then began chairing section committees, which opened the door to attending and participating in the executive committee meetings. And I always offered to help.

When the time came and I was offered a chance to run for section chair, I took the leap. One of the great honors of my career was winning the election. Some rise to section chair quickly, without much knowledge about how the section operates, while others come up as I did, taking increasing levels of responsibility. I can only speak from my experience, but my path served me well and I was ready to serve the section membership when my time came. My mantra was that serving the members was priority one; every decision the executive committee made should be in the interest of serving the membership.

Of course, you also need to be ready to lead through unanticipated circumstances. Little did I, or any of us, know what was coming when I assumed the role of section chair in 2020. I'm talking about the pandemic, which suddenly put me in the position of having to figure out how to lead the section as we moved to a completely virtual world.



When I first started to serve the Biopharmaceutical Section, I was amazed at how well it all functioned. There are so many people working to serve the membership. By the time I was elected to lead, I was past the amazement and on to being proud of how well it all functioned. As in my corporate life, I brought my leadership style to my three-year journey through section chair-elect, chair, and past chair, which is to lead from behind. I found this was natural to me. Years ago, I read Nelson Mandela used a shepherd as an example of a leader in his autobiography. He wrote, “[A leader] stays behind the flock, letting the most nimble go out ahead, whereupon the others follow, not realizing that all along they are being directed from behind.”

I have also learned that, when the going gets tough, stepping to the front is appropriate. But step up when needed; don't micromanage. Support by creating a comfortable atmosphere that can breed innovation and do not interfere with the good people doing their jobs. Nothing makes a leader's role easier than having the support of good, smart people. Nurture those people, making the most of their skills, while always being prepared for them to move on.

Of course, no organization is perfect. When I see dysfunction, I step from behind to the front. We, as a team, figure out what went wrong and how to fix it so the issue doesn't re-occur. If a decision needs to be made, I am happy to make it, but I prefer it if those closest to the issue make the decision.

I do recognize not everyone is comfortable with making decisions, but, as a leader, I understand no decision (or, worse, fear of making a decision) and therefore choosing the status quo is still a decision. So, I'm always willing to decide when no one else will. That responsibility comes with the job/role.

For example, the Biopharmaceutical Section is constantly evolving, be it due to technology, the expanding diversity of membership, finances, or changes dictated by the ASA. This evolution needs to be assessed and decisions regarding adaptations need to be made. Not every decision you make will be acceptable to everyone, but it must still be made.

I view a big part of my role in both my corporate life and during my section leadership as helping to make sure everyone else can accomplish their goals. I'm happy to help, but I'm also happy to get out of the way and let those who deserve it get the credit. (Remember when I said put your ego aside?)

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## Not every decision you make will be acceptable to everyone, but it must still be made.

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Yes, visibility is nice when you get a slide with your name listed at some meeting or workshop and, as chair, I did enjoy writing update newsletters to the section. However, the majority attending section events don't know 99% of how an event came together and who put it together, and they don't need to know.

If you are the type of person who likes to see behind the curtain regarding how these events are put on and get satisfaction from serving the section membership, then serve the community by helping provide the best experience. Service in the Biopharmaceutical Section is wonderful and has given me back far more than I put into it, predominantly because of the people I have met.

A final thought is more of a plug for the section mentoring program. There is so much experience waiting to be shared within the section, and I encourage those of you with that experience to sign up as mentors. Those seeking to learn from their experience should sign up as mentees. I have achieved much satisfaction mentoring statisticians. Regardless of the stage of your career, whether through a formal mentoring program or not, seek out mentors who can help you achieve your vision. Over time, when your vision inevitably changes as you do, seek out more mentors. Finally, when you are ready, give back your experience. Keeping your experience to yourself helps no one. ■

STATS4GOOD

# COPSS Awards Reward Data for Good



**David Corliss** is the principal data scientist at Grafham Analytics and founder of Peace-Work.

The Committee of Presidents of Statistical Societies, known as COPSS, recently opened nominations for its 2025 leadership awards. These are distinguished awards recognizing both early-career and senior accomplishments in the theory and practice of statistics. As a member of the committee for the emerging leaders award, I have seen how the committee's work—and especially these awards—recognize and promote outstanding accomplishments. Additionally, Data for Good is strongly represented.

COPSS is an association of professional societies that promotes discovery and practice in the statistical sciences. Members include the American Statistical Association, International Biometric Society—both Eastern North American and Western North American regions—Statistical Society of Canada, and Institute of Mathematical Statistics. With each society having a distinct character and mission, the committee works across organizations on shared interests and goals such as promoting statistics, awarding prizes and lectureships, and increasing intersociety communication.

COPSS awards focus on the impact of statistical theory and practice. While this doesn't specifically target Data for Good, the high visibility and impact of D4G means there is often a strong connection between the two—as the old saying goes, “doing well by doing good.” Let's take a closer look at the awards and some of the recent recipients and you will see what I mean.

## Presidents' Award

The COPSS Presidents' Award recognizes a younger statistician who has made outstanding contributions to the profession. The 2024 honoree is Veronika Rockova of The University of Chicago, who also received the COPSS Emerging Leader Award in 2023. Much of her important work is at the intersection of Bayesian and frequentists methods, strengthening the tool set applied to many problems, including Data for Good.

## Getting Involved

In opportunities this month, nominations for the 2025 COPSS awards are open. Nomination packages are due December 15, so now



is the time to work with your colleagues to recommend people. You can find details about all the awards at [bit.ly/3BxHBpD](https://bit.ly/3BxHBpD).

Also this month, the ASA Government Statistics, Survey Research Methods, and Social Statistics sections are



sponsoring a student paper competition for student and post-graduate papers. The winners will present their papers in a topic-contributed session at JSM 2025 in Nashville, Tennessee. Applications are due by November 15, so visit [bit.ly/47VHz76](https://bit.ly/47VHz76) for details today.

## Distinguished Achievement Award

The COPSS Distinguished Achievement Award recognizes the highly significant impact of statistical methods on scientific investigations and includes a lecture given at the Joint Statistical Meetings. This year, the award recognized the work of Robert Tibshirani at Stanford, including



From left: Robert Tibshirani, Distinguished Achievement Award and Lectureship; Regina Liu, Elizabeth L. Scott Award; Veronika Rockova, Presidents' Award; and Emerging Leader Award winners Sandra Safo, Anru Zhang, Zheng Tracy Ke, Shu Yang, Jennifer Bobb, Abhirup Datta, and Bailey Fosdick Photo: Eric Sampson/ASA

his groundbreaking work in developing LASSO regression. At the reception following the lecture, I had a chance to talk with Tibshirani, who offered his thoughts about sorting through the 2 million or so multicollinear poverty metrics now available to help identify which factors are most closely associated with a particular issue.

### Elizabeth L. Scott Award and Lecture

The Elizabeth L. Scott Award and Lecture, awarded in even-numbered years, honors Scott's lifelong efforts to further the careers of women in academia, including equal pay and recognition for their work. As a statistical astrophysicist, my D4G work on bias traces directly back to Scott's work on sample bias in observations of galaxy clusters.

The 2024 award honors the work of Regina Liu of Rutgers for her leadership in developing careers and creating supportive work environment for underrepresented groups and new researchers, as well as her work in nonparametric statistics.

### Florence N. David Award and Lectureship and George W. Snedecor Award

In odd-numbered years (nominations now being accepted for the 2025 awards), COPSS presents the Florence N. David Award and Lectureship to a female statistician who serves as a role model to other women and the George W. Snedecor Award to a researcher in biometry with an important advance published within three years of the date of the award.

### Emerging Leader Award

The COPSS Emerging Leader Award is presented annually to up to eight early-career statistical scientists demonstrating outstanding leadership that will shape research and applications in statistics and data science for years to come. The award recipients are distinguished for contributions to statistical theory and applications, as well as mentoring, education, and service. As in all COPSS awards, the Emerging Leader Award—with its recognition of groundbreaking innovation in statistical science combined with service and leadership—make it a natural fit for distinguished accomplishments in Data for Good. ■



# SDSS 2025 to Bridge Disciplines and Advance AI, Statistics, Data Science

Stephanie Shipp, Program Chair



The theme for the 2025 Symposium on Data Science and Statistics is “Bridging Disciplines: Advancing AI, Statistics, and Data Science Together.” Taking place April 29–May 2, 2025, at the Hilton in Salt Lake City, Utah, the theme reflects the transdisciplinary role statistics, data science, and now AI have integrated multiple disciplines to push the innovation boundaries of these rapidly evolving fields.

SDSS brings together statisticians, data scientists, social scientists, computer scientists, engineers, business leaders, and more to learn from and forge collaborations with each other. The power of these collaborations is their potential to advance knowledge across these fields, driving breakthroughs across various interests and applications.

All data enthusiasts are welcome. The SDSS program has sessions for attendees at every career level with interests organized into the following six tracks:

- Computational Statistics
- Statistical Data Science
- Data Visualization
- Practice and Applications
- Education
- Software and Data Science Technologies

SDSS will offer networking and career growth opportunities for students and early- and mid-career professionals. These opportunities include speed mentoring, organized lunches, and social events. With an array of experiences and with representatives from academia, industry, and government, the SDSS 2025 Program Committee is brainstorming ideas for new opportunities and events to foster growth opportunities during the conference.

Building on the SDSS 2024 activities, the SDSS 2025 program will include short courses, lightning talks paired with e-poster sessions, plenary panels, and refereed presentations. Refereed abstracts can be submitted now until December 5.

The conference will continue its partnership with the *Journal of Data Science*, and authors of refereed presentations will have the option to submit papers for a special issue.

“Special Issue: 2023 Symposium on Data Science and Statistics: ‘Inquire, Investigate, Implement, Innovate,’” was recently published, and the SDSS 2024 special issue is in progress.

The conference will take place at the Hilton Salt Lake City Center in the downtown district. With opportunities for hiking and exploring nature, Salt Lake City also offers free transit around the city to visit farmers’ markets, restaurants, and art galleries. ■



# Two NIH Leaders Honored with Griffith Mentoring Award

The ASA's Government Statistics Section recently awarded the Jeanne E. Griffith Mentoring Award to two women from the National Institutes of Health: Nancy L. Geller, director of the Office of Biostatistics Research at the National Heart, Lung, and Blood Institute and Clarice R. Weinberg, principal investigator in the biostatistics and computational biology branch of the National Institute of Environmental Health Sciences. They will be celebrated with a virtual ceremony and webinar hosted by the Interagency Council on Statistical Policy.

Nancy L. Geller is the 2011 American Statistical Association president, ASA Fellow, International Statistical Institute elected member, and 2009 Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences winner. Throughout her career, she has taken on the incidental responsibility of mentoring colleagues and other statisticians.

Geller directs a large group of statisticians who collaborate on the design, implementation, monitoring, and analysis of clinical studies in heart, lung, and blood diseases and sleep disorders and administers most National Heart, Lung, and Blood Institute statistical activities. She has been involved in the design and analysis of many seminal trials, most recently the Primary Care Pediatrics Learning Activity and Nutrition with Families trial and Chronic Hypertension Pregnancy trial. Her statistical contributions have been in monitoring clinical trials with multiple primary endpoints, and she has published more than 250 papers in statistical and medical literature. She is an associate editor of *Biometrics*.

Dr. Richard W. Childs, assistant United States surgeon general, described Geller's mentoring style as supportive and inclusive. "Even though she

has numerous accolades and has been a leader at NHLBI for decades, she is known for her candor, humor, and approachability, which encourages her mentees to seek her guidance and advice without hesitation," he said. "Her open-door policy and willingness to listen to the concerns and ideas of her mentees have made her a beloved and respected figure at NHLBI," he continued. "She takes a holistic approach to mentoring, providing her mentees with valuable advice on career development, work-life balance, and personal growth."

Throughout her tenure at the Memorial Sloan Kettering Cancer Center and National Institutes of Health, Geller has mentored several junior and aspiring statisticians, ranging from high school students to postdoctoral fellows. From her mentoring record. One can see she has been devoted to coaching individuals from diverse backgrounds. These mentees have had successful careers, ranging from faculty positions to leadership roles

in industry to appointments at the US Food and Drug Administration and US Centers for Disease Control and Prevention.

A hallmark of Geller's mentoring style is using her leadership role to train the next generation of biostatisticians and data scientists. She helped start the National Institutes of Health Summer in Biostatistics and Data Science, a summer training course for undergraduate students offered by several universities across the nation. The program helps mentor young, aspiring biostatisticians and data scientists and aids senior biostatisticians in developing their careers.

Geller received unanimous support for her award nomination from predoctoral fellows, who attribute their choice to pursue doctoral degrees in biostatistics, to senior biostatisticians



Clarice R. Weinberg



Nancy L. Geller

in academia and government, who attribute their success to her mentorship.

A direct supervisee, Eric S. Leifer, wrote that he hesitated to call her boss. “I put ‘boss’ in quotes since Nancy hasn’t been my boss in the classical sense, but rather has been an excellent mentor and friend.” He continued, “Nancy has created an environment of support, collegiality, and fun, which has made my experience particularly gratifying and meaningful.”

Geller embodies the spirit of the Jeanne E. Griffith Mentoring Award. She mentors at an individual level while also leveraging her leadership role to create the next generation of quantitative scientists in emerging areas of research.

Clarice R. Weinberg was named a “change-maker” by the University of Washington School of Public Health in 2020, an honor given to 50 out of 11,000 alumni. Among her many honors, she is an ASA Fellow, the winner of the 2005 Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences, and the winner of the 2005 Nathan Mantel Award, given by the ASA Section on Statistics in Epidemiology for lifetime contributions to the development and application of statistical science to problems and issues in epidemiology. She is a lifelong government statistician and scientist who is curious about the underlying science.

In her National Institute of Environmental Health Sciences career of more than 40 years, she has mentored many doctoral and postdoctoral fellows. Almost all her trainees have gone on to successful professional careers at universities or in industry or the government.

Shyamal Peddada, a senior investigator at the National Institute of Environmental Health Sciences, wrote that Weinberg’s curiosity is on full display during seminar talks or meetings when she asks deep, thoughtful questions that often lead to new areas of research.

Peddada also noted one of Weinberg’s biggest contributions to the growth and development of her trainees is how she teaches them to think about a problem. Rather than identifying a specific methodological question, she presents a broad research area and works with them to identify and solve important scientific questions. This line of thinking helps her trainees publish high-impact papers.

Haibo Zhou—a trainee, ASA Fellow, and tenured full professor in the department of biostatistics at The

University of North Carolina at Chapel Hill—attributes his training and the start of his independent career with such a wealth of ideas that it led to four successful NIH R01 grants.

Another of her trainees, Chuyuan Fei, said, “What distinguishes [Weinberg] is her commitment to dedicating time and effort to the growth and development of her mentees.” Fei continued, “She provided invaluable insights and guidance at every stage of my projects, from study design to data collection, analysis, and interpretation. Through her mentorship, I honed my skills in study design and statistical methodologies for addressing complex questions, which have been instrumental in my career advancement.”

Similar sentiments were expressed by former mentees Min Shi and Michael Nodzenski in their nomination letters. Furthermore, Shi said Weinberg “serves as a great role model, especially for junior women scientists.”

David Dunson, arts and sciences professor of statistical science and mathematics at Duke University and one of Weinberg’s mentees, wrote, “Her research skills, intellect, and passion for epidemiology research provide a backdrop upon which her mentoring abilities are based. ... She pushed me to substantially up my game from my initial tendency to quickly develop creative models and algorithms without sufficient justification to direct applied motivation and careful thought.” Dunson continued, “This process fundamentally improved my skills as a researcher and was key to me developing the type of exceptional applied-driven methodology and writing skills I have used to excel throughout my career. Indeed, I have [Weinberg] largely to thank for her clear causal contribution on molding me into the researcher I am today.”

Dunson concluded his letter by writing, “I give [her] my highest recommendation for this award. I cannot imagine anyone more deserving. She has had an exceptional impact on numerous young researchers over the years—this impact is driven not by her desire to improve her own CV but by a passion for exceptional science coupled with a drive to help the next generation of researchers to embrace and understand the beauty of first-rate science-driven statistics.”

Visit the ASA Government Statistics Section website at [bit.ly/3x7PaB7](https://bit.ly/3x7PaB7) for more information about the mentoring award. ■

# UConn Sports Analytics Symposium Showcases Student-Oriented Educational Innovation

Brian Macdonald, Gregory J. Matthews, and Jun Yan



Attendees at the 2024 UCSAS event with keynote speaker Nathan Chen. From left: Ankith Nagabandi, Jun Yan, Nathan Chen, Sofia Rebelo, Lucy Liu, Joann Jun, Sana Gupta, David Li, Hari Patchigolla, Leon Nguyen, Alex Hill, Mathew Chandy, Kristin Morgan, Sean Ahmed, Sean Fischer, Gregory Matthews, and Brian Macdonald.

Photo courtesy of Jiafeng Sun

The fifth UConn Sports Analytics Symposium was held April 12–13 at the University of Connecticut, drawing 216 registrants and 149 in-person attendees. Organized by the Connecticut Statistical Data Science Lab, the symposium continued its mission of engaging students at various educational levels—from pre-college to graduate—in sports analytics and data science. The revamped event offered a comprehensive program designed to showcase the field’s interdisciplinary impact while fostering collaboration between students, academic programs, and the sports industry.

## Keynote and Invited Presentations/Panel

The symposium opened with a keynote presentation from Esteban Navarro Garaiz, technical product manager at Zelus Analytics, titled “Baseball Analytics: Past, Present, and Beyond,” which offered insights about the evolution of baseball data analysis and its impact on the sport.

Kristin Morgan, assistant professor of biomedical engineering at the University of Connecticut, followed with a presentation titled

“Interdisciplinary Data-Driven Approach to Improve Player Recovery and Performance,” which highlighted the convergence of biomechanics, data science, and health care in sports analytics.

The final speaker was Olympic, world, and US champion figure skater Nathan Chen, a recent statistics and data science graduate from Yale University. In his closing keynote presentation, titled “Designing the Optimal Figure Skating Program: Leveraging Data for a Competitive Edge,” Chen discussed how data science principles can be applied to create optimal figure skating routines, combining athleticism with statistical precision.

The symposium’s panel discussion, “Sport Analytics for Life: Many Different Paths,” featured experts from across the sports industry, including Sean Ahmed, Pittsburgh Pirates; Luke Benz, Harvard University; Sean Fischer, Cincinnati Reds; Paul Sabin, University of Pennsylvania Wharton School; and Emily Wright, Volleyball Canada Beach National Teams. They shared career insights and diverse perspectives on sports analytics, illustrating the field’s career paths for aspiring analysts.

The symposium also featured the following four invited sessions that focused on a wide array of topics in sports analytics:

- “Athlete Welfare Research Organized by Korey Stringer Institute of UConn”
- “Olympic Sports”
- “Big Data Bowl Finalists”
- “Sports Analytics Beyond the Field”

These sessions focused on specific issues and innovations, offering participants the opportunity to learn from industry and academic experts.

### Data Challenge and Poster Session

A highlight of the symposium was the US Olympic and Paralympic Committee Data Challenge, facilitated by Elliot Schwartz, committee performance innovation lead. More than 30 teams submitted solutions aimed at optimizing Team USA’s gymnastics team success for the 2024 Summer Olympics, held in Paris, France, in August. Six finalist teams presented their work during the symposium’s poster session, with Duke University’s Team Blue Devil Statistics Magicians (Benjamin Thorpe, Sean Li, and Christopher Tsai) winning the challenge in the high school/undergraduate division and Yale University’s Team David-Siddharth-Abby (David Metrick, Siddharth Chandrappa, and Abby Spears) winning the challenge in the graduate division.

The student poster session attracted a wide range of submissions. Presenters were supported by a travel grant from the National Science Foundation to attend the symposium. The Student Poster Award winners were Min Sung Choi of Yonsei University for his analysis of NBA players’ passing and playmaking skills and Adam Slivinsky of the University of California at Santa Cruz for his work on evaluating Major League Baseball umpire performance using statistical neural networks.

Both the US Olympic and Paralympic Committee Data Challenge and student poster awards were evaluated by large judging teams of industry professionals, academic professionals, and practitioners.

### Hands-On Training Workshops

Another feature of the symposium was an emphasis on student engagement through hands-on workshops.

### Looking Ahead to 2025: A New Era

In 2025, the Sports Analytics Symposium will be renamed the Connecticut Sports Analytics Symposium to reflect its broader focus and rotation of host institutions. It will be held April 11–12, 2025, at Yale University.

The 2025 Data Challenge will focus on analyzing data on bat speed and swing length to explore pitcher-batter interactions in Major League Baseball. The challenge, which is open to students only, provides an opportunity for participants to apply their analytical skills in a real-world sports context. Faculty and students are encouraged to incorporate the data challenge into their fall 2024 statistics or data science coursework.

Registration for the challenge will close December 1, and the submission deadline is January 15, 2025. Finalists will be notified by February 15, 2025. For more information, visit <https://stats.org/events/csas2025/challenge.html>. Questions may be sent to Brian Macdonald at [brian.macdonald@yale.edu](mailto:brian.macdonald@yale.edu).

This year, six workshops were led by UConn students, five who were undergraduates in the UConn Data Science Club, further exemplifying the symposium’s commitment to fostering a learning environment driven by student leadership. The workshop sessions covered a range of topics about sports analytics, titled the following:

- “Introduction to R,” Fusheng Yang
- “Introduction to Python,” Charitarth Chugh
- “Analysis of Formula 1 Data with Python,” Abhiram Gunt
- “Basketball Analytics,” Mathew Chandy
- “Web Scraping for Sports Data,” Tyler Hinrichs
- “TensorFlow in Sports Analytics,” Hari Patchigolla
- “Causal Inference in Sports Analytics,” Kevin Cummiskey

Workshop recordings and selected presentations are available at <https://youtube.com/@ctdatasciencelab>. ■



# ASA Biopharmaceutical Section Awards 10 Students Scholarship

Wenting Cheng, Biogen

Established in 2018, the ASA Biopharmaceutical Section Scholarship Award recognizes notable research, academic achievement, and applied project work in biopharmaceutical statistics. The award also considers general academic performance, leadership, volunteering, and service.

The following 10 students were awarded the ASA Biopharmaceutical Section Award in 2024:



**Navneet Ram Hakhu** from the University of California, Irvine, will join the department of biostatistics at Harvard T.H. Chan School of Public Health as a postdoctoral research fellow to work on statistical methods at the intersection of randomized trials and observational studies.



**Ann Marie Weideman** from The University of North Carolina at Chapel Hill will work at Eli Lilly in Indianapolis as a research adviser statistician in the diabetes group.



**Ransmond Berchie** from the University of Utah will seek a biostatistician role in the biotech/biopharmaceutical industry after completing their degree in spring 2025.



**Megan McCabe** from the University of Iowa will join the school of public health at the University of Alabama at Birmingham as an assistant professor.



**Yixin (Amy) Zhang** from Boston University will work as an independent researcher and focus on statistical genetics and omics with the goal of making contributions to the biopharmaceutical field through work such as identifying biomarkers that may be potential therapeutic targets.



**Dennis Baidoo** from the University of New Mexico hope to become a leading researcher and educator, contributing to the development of advanced statistical methodologies that drive breakthroughs in biomedical research, public health, and clinical practice. He also aims to secure a faculty position.



**Runjia Li** from the University of Pittsburgh will join Eli Lilly as a research adviser after graduation.



**Marlena Bannick** from the University of Washington will focus on methodological and applied work in the design, conduct, and analysis of clinical trials.



**Lizhao Ge** from The George Washington University will explore various opportunities in the biopharmaceutical industry and with the US Food and Drug Administration.



**Zhongyang Ma** from New York University plans to work as a biostatistician in the biopharmaceutical industry and engage in the planning, methodology, and analysis of clinical trials.

The number of submissions doubled from last year and, due to the increase in and quality of submissions, the committee—composed of Wenting Cheng, Bruce Binkowitz, Rebecca Wilson, and Tony Jiang—received approval to distribute \$30,000 across 10 awards.

The 2024 honorees were formally recognized at the Biopharmaceutical Section's open business meeting during the 2024 Joint Statistical Meetings.

For more information and updates on the 2025 award, visit <https://community.amstat.org/biopl/awards/scholarship>. ■

# USPROC Co-Chairs Announce Winners, Future Competition

Juanjuan Fan, San Diego State University; Ciaran Evans, Wake Forest University; and Jennifer Ward, Clark College

The co-chairs of the Undergraduate Statistics Project Competition organizing committee announce the winners for the spring 2024 submission cycle. In the two categories of the Undergraduate Statistics Class Project Competition, the winners are the following:

## Introductory Statistics Competition

**1st Place:** Seung Woo (Alex) Lee and Justin Zych of the University of Notre Dame for “Predicting Life Expectancy Using Global Data in 2015”  
*Faculty Sponsor: Spencer Giddens*

**2nd Place:** Mason Purcell, Joy Zhang, Aleeza Sadiq, and Riley Goetz of the University of Virginia for “Predicting Housing Prices in a College Town in Virginia”  
*Faculty Sponsor: Krista Varanyak*

**3rd Place:** David Kanowitz and Grace Sheridan of the Rose-Hulman Institute of Technology for “A Bayesian Analysis of the Variate Strength of PLA”  
*Faculty Sponsor: Eric Reyes*

**Honorable Mentions:** Ashleigh Jung, Po-Lin Wang, and Alyssa Chin of the University of Notre Dame for “Statistical Analysis on Factors that Lead to Extramarital Affairs During Marriage”  
*Faculty Sponsor: Spencer Giddens*

## Intermediate Statistics Competition

**1st Place:** Deepit Chandgothia and Ainsley Yuknis of Grinnell College for “Squirrel Threat Assessment on Institution Campus”  
*Faculty Sponsor: Jeffrey Jonkman*

**2nd Place:** Matheus Kunzler Maldaner, Justin Witter, Patrick Lehman, Raul Valle, and Eric Chao of the University of Florida for “Optimizing Digital Learning Through Data Analytics and Natural Language Processing”  
*Faculty Sponsor: Elizabeth Johnson*

## Submission Categories

- **Undergraduate Statistics Class Project Competition:** For undergraduate students who are taking a statistics/data science course at the introductory or intermediate level (separate competition categories) in which a class project is part of the coursework (either required or optional). Project submissions are a paper (up to three pages).
- **Undergraduate Statistics Research Project Competition:** For undergraduate students who conduct research projects related to statistics or data science, either methodological or applied. The types of research projects may include work from summer research experience for undergraduate projects, senior-level research projects (part of coursework), or independent research projects (e.g., honors, capstone) not based on a specific course students are taking. Project submissions are a paper (up to 20 pages).

**3rd Place:** Audrey Yip and Jenni Yu of Wellesley College for “Exploring Factors Influencing User Engagement with Academic Institution-Related YouTube Videos: A Case Study of ‘AAA College’”  
*Faculty Sponsor: Anny-Claude Joseph*

**Honorable Mention:** Alisha Bhatia of the University of Florida for “Single-Cell RNA Sequencing (scRNAseq) Analysis of Murine Glioma to Investigate the Potential of Astrocytes as a Therapeutic Target”  
*Faculty Sponsor: Demetris Athienitis*

For the Undergraduate Statistics Research Project Competition, the winners are the following:

**1st Place:** Evan Christensen, Helen Moses, Sammi Sheridan, and Miles Frisch of Carleton College for “A Comparison of Spatial Models Incorporating Nonspatial Information, with a Policing Case Study”  
*Faculty Sponsor: Claire Kelling*

**2nd Place:** Ahmet Cemek of the New College of Florida for “Studying the Effects of ‘Prevent Defense’ Tactic on Team’s Offensive Output Across Five Major European Club Soccer Leagues”  
*Faculty Sponsors: Andrey Skripnikov and David Gillman*

**3rd Place:** Nathan Weaver, Max Logalbo, and Jonathan Pipping of the University of Florida for “Topological Data Analysis for Classification of AI Generated Faces”  
*Faculty Sponsor: Elizabeth Johnson*

**Honorable Mentions:** Miles King, James Gao, Harry Wang, and Frankie Willard of Duke University for “Lo(fex) and Behold: Extending Previous Analyses of Lofexidine’s Efficacy for Opiate Withdrawal Symptoms”  
*Faculty Sponsor: Yue Jiang*

View the winning and honorable mention projects at <https://causeweb.org/usproc/usclap/2024/spring/winners> and <https://causeweb.org/usproc/usresp/2024/spring/winners>.

This year’s winners were given the opportunity to present at the 2024 Electronic Undergraduate Statistics Research Conference on November 8.

The deadline for students to submit their work for the next competition submission cycle is December 18. Projects completed in the summer and fall 2024 are eligible, and winners receive cash prizes. The purpose of the competition is to encourage the development of data analysis skills, enhance presentation skills, and recognize outstanding work by undergraduate statistics students.

To become a judge for the next submission cycle, visit <https://forms.gle/MXfdqEFJwrPVtd5M8>.

For more information about the competition, visit [www.causeweb.org/usproc](http://www.causeweb.org/usproc) or email Juanjuan Fan at [jjfan@sdsu.edu](mailto:jjfan@sdsu.edu), Ciaran Evans at [evansc@wfu.edu](mailto:evansc@wfu.edu), or Jennifer Ward at [jsward@clark.edu](mailto:jsward@clark.edu). ■

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Add section and chapter membership at [www2.amstat.org/membersonly/additems](http://www2.amstat.org/membersonly/additems).

## ASA Section Awards

Many ASA sections offer travel awards for students who enter and win their student paper competitions. These awards reimburse registration and travel costs to ASA-sponsored conferences. The following general policies and procedures apply to all ASA section competitions:

- Sections must receive all materials by November 15; however, some sections have earlier deadlines, so check each section's website for dates.
- Winners will be notified by January 15.
- JSM best paper competition winners must submit abstracts and register for JSM through the official JSM abstract submission system by the deadline.
- Students may submit papers to no more than two sections and may accept only one section's award. Students must inform both sections applied to when he or she wins and accepts an award, thereby removing themselves from the award competition for the second section.
- Students planning to participate in section competitions must adhere to the eligibility, paper format, submission process, and other requirements of the sections to which they are applying.

Visit <https://bit.ly/3ZxxbjX> to view all the section awards and learn about detailed submission instructions, eligibility requirements, and deadlines. ■

## Waksberg Award

The journal *Survey Methodology* established the Waksberg Award and an annual invited paper series in honor of the late Joseph Waksberg to recognize his outstanding contributions to survey statistics and methodology. Each year, a prominent survey statistician is chosen to author a paper that reviews the development and current state of an important topic in the survey statistics and methodology field, reflecting the mixture of theory and practice that characterized Joseph Waksberg's work.

The recipient of the Waksberg Award will receive an honorarium and give the 2026 Waksberg Invited Address at the Statistics Canada Symposium, expected to be held in autumn 2026. The paper will be published in an upcoming issue of *Survey Methodology* (targeted for December 2026).

The honoree will be selected by a four-person committee appointed by *Survey Methodology* and the American Statistical Association. Nominations should include a CV and nomination letter and be sent by email before February 15, 2025, to committee chair Jae Kwang Kim at [jkim@iastate.edu](mailto:jkim@iastate.edu). Nominations will remain active for five years.

Previous Waksberg Award honorees and their invited papers can be viewed at [bit.ly/3NmsqlN](https://bit.ly/3NmsqlN). ■

## ASA/AAAS Mass Media Fellowship

Students and postdocs interested in journalism and gaining writing experience that advances a statistical perspective can apply for the AAAS Mass Media Fellowship and spend 10 weeks with a media outlet next summer. Applications will be accepted until January 1, 2025, on the AAAS website.

Led by AAAS and supported by many organizations, the fellowship is a program designed to enhance coverage of science-related issues in the media and improve public understanding of and appreciation for science and technology. The program has supported more than 700 fellows in its more than 40-year history.

The AAAS eligibility requirements include being an upper-level undergraduate or graduate student or postdoctoral trainee in a STEM field and a US citizen or holder of a visa allowing paid work in the United States. To be the ASA-sponsored AAAS Mass Media Fellow, you must have substantial statistical training. Having a statistics degree or being enrolled in a statistics program is preferred but not required.

Visit the AAAS website at [www.aaas.org/fellowships/mass-media/apply](http://www.aaas.org/fellowships/mass-media/apply) for details and to apply. ■



# 2025 Deadlines

## for Select ASA National Awards, Special Lectureships, and COPSS Awards

The ASA's extensive awards program recognizes statisticians who have made outstanding contributions to the association and statistical profession through research, teaching, consulting, and service.

### David R. Cox Foundations of Statistics Award

Deadline: December 1

### COPSS Distinguished Achievement Award and Lectureship

Deadline: December 15

### Elizabeth L. Scott Award and Lectureship

Deadline: December 15

### COPSS Emerging Leader Award

Deadline: December 15

### Monroe G. Sirken Award in Interdisciplinary Survey Methods Research

Deadline: December 20

### Gottfried E. Noether Awards

Deadline: January 15, 2025

### Bob Riffenburgh Award

Deadline: January 15, 2025

### Karl E. Peace Award

Deadline: February 1, 2025

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

Deadline: February 15, 2025

### Harry V. Roberts Statistical Advocate of the Year Award

Deadline: February 15, 2025

### Waller Awards

Deadline: February 15, 2025

### Samuel S. Wilks Memorial Award

Deadline: February 15, 2025

### W. J. Youden Award in Interlaboratory Testing

Deadline: February 15, 2025

### Statistics in Physical Engineering Sciences Award

Deadline: February 20, 2025

### Gertrude M. Cox Scholarship

Deadline: February 23, 2025

### Edward C. Bryant Scholarship

Deadline: March 1, 2025

### 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

### Annie T. Randall Innovator Award

Deadline: March 15, 2025

### Biopharmaceutical Section Scholarship Award

Deadline: March 15, 2025

### Founders Award

Deadline: March 15, 2025



Visit the ASA website to view a comprehensive list of awards and scholarships.

### ASA Pride Scholarship

Deadline: March 31, 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

### Deming Lecturer Award

Deadline: October 15, 2025

Questions about these awards may be sent to [awards@amstat.org](mailto:awards@amstat.org). ■

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

Professional Opportunities vacancies also will be published on the ASA's website ([www.amstat.org](http://www.amstat.org)). Vacancy listings will appear on the website for the entire calendar month. Ads may not be placed for publication in the magazine only; all ads will be published both electronically and in print.

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

Employers are expected to acknowledge all responses resulting from publication of their ads. Personnel advertising is accepted with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual orientation.

Also, look for job ads on the ASA website at <https://jobs.amstat.org/jobseekers>.

## Columbia University, Department of Statistics Lecturer in Discipline Position starting Fall 2025

The Department of Statistics invites applications for a Lecturer in Discipline position to begin July 1, 2025. This is a full-time appointment with multi-year renewal contingent on successful reviews. The position will contribute to the Departmental educational mission at the undergraduate and master's level.

Lecturers in Discipline are officers in the University who meet a programmatic need for instruction in specialized fields. The selected candidates will be expected to teach up to 3 courses per semester. A Ph.D. in Statistics or related field by the date of appointment and a commitment to high-quality teaching at both the undergraduate and MA levels in Statistics and/or Probability are required. Candidates will be expected to participate in the full gamut of statistics education including curriculum improvement, modifying and developing courses, and exploring new strategies for the teaching of statistics. We are particularly seeking candidates with expertise in applied statistics, data science, and the application of statistical methods across a variety of disciplines and sectors.

The Department currently consists of 40 faculty members, 73 PhD students, and over 300 MA students. The Department has been expanding rapidly and, like the University itself, is an extraordinarily vibrant academic community. We are especially interested in candidates who through their research, teaching and/or service will contribute to the diversity and excellence of the academic community. Women and minorities are especially encouraged to apply. For further information about the Department and our programs, please go to our webpage at: <http://www.stat.columbia.edu>.

**Qualifications:** Ph.D. in statistics or a related field by the date of appointment, as is a commitment to high quality research and teaching in statistics and/or probability.

**Application Instructions:** All applications must be submitted through Columbia's online Academic Search and Recruiting portal (ASR) [apply.interfolio.com/154160](http://apply.interfolio.com/154160) and must include the following materials: cover letter, curriculum vitae, statement of teaching philosophy, research statement, evidence of teaching effectiveness (teaching evaluations), a sample of course syllabus and the names of 3 references, who will be asked to upload letters of recommendation on their behalf

**Salary Range or Pay Grade:** \$95,000-\$100,000

**Pay Transparency Disclosure:** The salary of the finalist selected for this role will be set based on a variety of factors, including but not limited to departmental budgets, qualifications, experience, education, licenses, specialty, and training. The above hiring range represents the University's good faith and reasonable estimate of the range of possible compensation at the time of posting.

Inquiries may be made to Dood Kalicharan at [dk@stat.columbia.edu](mailto:dk@stat.columbia.edu)  
Columbia University is an Equal Opportunity Employer / Disability / Veteran

## Massachusetts

■The Department of Biostatistics at the Harvard T.H. Chan School of Public Health seeks candidates to fill a tenure-track faculty position at the assistant or associate professor level. For more information or to submit an application, please visit the ad posted at <https://academicpositions.harvard.edu/postings/13950>.

■The Department of Biostatistics at the Harvard T.H. Chan School of Public Health seeks candidates to fill a senior faculty position at the full professor level. For more information or to submit an application, please visit the ad posted at <https://academicpositions.harvard.edu/postings/14047>.

## Michigan

■The University of Michigan Department of Biostatistics is seeking applicants for multiple open rank faculty positions with flexible starting dates. Candidates must have a strong research background with a PhD degree or equivalent in biostatistics, statistics, genetics, data science, computer science, bioinformatics, or other related quantitative discipline, and a strong research interest in health data science. For further details, visit: <http://apply.interfolio.com/152852>. Applications from women and minorities are encouraged. EOE/AA.

## New Jersey

■Princeton University's initiative for Data-Driven Social Science (DDSS) invites applications for Postdoctoral Research Associates. DDSS supports technical and methodological innovation in quantitative social science, addressing a diverse array of new data and analytic challenges, facilitating impactful multidisciplinary collaboration, scholarly advancement, and the creation of tools and public goods. Area of expertise is open; strong technical skills required. Review of applications begins December 1, 2024. [bit.ly/3NrlHr5](http://bit.ly/3NrlHr5). EOE/AA.

### Texas

■The Department of Mathematical Sciences at The University of Texas at El Paso (UTEP) seeks data scientists for two tenure-track assistant/associate professor positions and a full professor with expertise in big data/AI and/or high-performance data analytics. Successful candidates will develop research programs, mentor and teach undergraduate and graduate students. Experience in applied interdisciplinary research/industry is encouraged. To view the full ads and apply visit [www.utep.edu/employment](http://www.utep.edu/employment). UTEP is an Equal Opportunity Employer.

■The Department of Statistics and Data Sciences at The University of Texas at Austin invites applications for tenured/tenure-track faculty positions to begin in fall 2025. Candidates with theoretical, computational, and application-driven research programs in all areas of statistics and machine learning will be considered. More information about the positions and instructions for submitting an application are available at <https://apply.interfolio.com/155145>.

### Virginia

■Statistics Department, University of Virginia, invites applications for two tenure-track assistant professors, starting fall 2025. Applicants must present evidence of outstanding accomplishments in teaching and research, and be dedicated to UVA's mission of excellence, collaboration, service. We expect continued growth in students, faculty, and department initiatives in future years. Equal Opportunity Employer. Review of applications starts November 1. Details, application process: [statistics.as.virginia.edu](http://statistics.as.virginia.edu).

### International

■The Institute of Statistical Science at Academia Sinica is seeking applications for tenure-track positions as full, associate, or assistant research fellows. We offer a stimulating research environment with excellent support. Interested candidates are encouraged to apply soon. For details about the positions and application procedures, please visit our website.

We look forward to receiving your application. [www.stat.sinica.edu.tw/eng/index.php?act=announcement\\_recruit&code=view&dataid=55](http://www.stat.sinica.edu.tw/eng/index.php?act=announcement_recruit&code=view&dataid=55).

■The Department of Statistics and Data Science at the National University of Singapore is one of the leading departments of its kind in Asia and globally. Comprising close to 40 full-time faculty members and around 70 research staff and PhD students, along with a strong network of industry affiliates, the department fosters a comprehensive and engaging research and educational environment in the areas of statistics and data science. We invite applications for departmental postdoctoral positions. These non-tenure-track positions are aimed at early-career researchers, particularly

recent or soon-to-be PhD graduates, with research interests that overlap or complement those of our faculty members. The positions offer an initial two-year appointment with the potential for a one-year extension. Successful candidates will receive a competitive annual salary of up to SGD90,000, along with generous travel support. Additionally, candidates will be provided with relocation and housing allowance. Teaching responsibilities involve two courses per year. To apply, submit a cover letter, curriculum vitae, research and teaching statements, and at least three letters of recommendation through Mathjobs.org at [www.mathjobs.org/jobs/list/24646](http://www.mathjobs.org/jobs/list/24646). More information about the university and the department can be found at [www.nus.edu.sg](http://www.nus.edu.sg) and [www.stat.nus.edu.sg](http://www.stat.nus.edu.sg).

# ASA AWARDS & RECOGNITION

Know of a deserving person who should be considered for ASA recognition? The ASA's extensive awards program recognizes statisticians who have made outstanding contributions through areas such as:

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- STUDENT SCHOLARSHIPS
- SERVICE to the association or profession

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■ The Department of Statistics and Data Science at the National University of Singapore invites applications for full-time open-rank positions in statistics, data science and related areas at tenure-track and tenured levels. The National University of Singapore offers internationally competitive salaries, generous research funding, travel support, relocation assistance and other benefits. The department has nearly 40 faculty members and provides a stimulating research environment. Applicants must have demonstrated exceptional research potential. For the associate and full professor positions, they must also have a track record of excellence in teaching and leadership. Submit a cover letter, curriculum vitae, research and teaching statements, and at least three letters of recommendation to Mathjobs.org. We have an ongoing recruitment process and will review applications as they are received. More information about the university and the department can be found at [www.nus.edu.sg](http://www.nus.edu.sg) and [www.stat.nus.edu.sg](http://www.stat.nus.edu.sg). ■

## SLMath (MSRI) Call for Applications - Berkeley, CA ADJOINT Summer Research (June 30 - July 11, 2025)

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Apply via [MathPrograms.org](http://MathPrograms.org) by February 4, 2025

[slmath.org/adjoint](http://slmath.org/adjoint)



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# This month's Top 10 is the 'Top Ten Concepts That Should Be Named After Me, Ron Wasserstein!'



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*. Ron was at an international conference recently when someone mistakenly thought he was the Wasserstein of “Wasserstein distance” fame. Ron said, “I could only say, ‘I wish.’ That guy is somewhat older than me and way smarter, and his last name is Russian and spelled differently.”

“But it got me to thinking,” Ron continued, “that there really *should* be some statistical or other concepts named after me. To get that process started, and no doubt to bring out a bunch of jokes at my expense, here are the ‘Top Ten Concepts That Should Be Named After Me, Ron Wasserstein.’”



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

## 10

**Wasserstein Prior:** Like me, it's noninformative and also unhelpful.

## 07

**The Real Wasserstein Distance:** This metric indicates how far people prefer to stay away from yours truly and is expressed in astronomical units.

## 04

**Wasserstein Equation:** Too complex to explain here, but the Wasserstein equation essentially shows that any two things already proven to be equal are, in fact, equal.

## #01

**Wasserstein Dilemma:** Pie or cake?

## 09

**Wasserstein Fudge Factor:** To use it, multiply my answer by the right answer divided by my answer, unless my answer is zero, in which case just use the right answer.

## 08

**Wasserstein Deductive Method:** The most widely used of my eponymous methods, this clever strategy deduces that anything repeated often enough must be true.

## 05

**Wasserstein's Corollary to Murphy's Law:** Anything that can go wrong will go wrong, and you will be blamed for it.

## 06

**Wasserstein's Last Theorem:** In the margins on an early page in Stephen King's *The Shining*, I wrote, “I have a proof that, if Jack Torrance had been a Bayesian, he would have immediately quit this job.”

## 03

**Wasserstein's Law of Large Numbers:** The number of times you can unsuccessfully explain to people that they aren't going to win the Powerball jackpot is countably infinite.

## 02

**Wasserstein Number:** A synonym for infinity; the Wasserstein number is my Erdős number.



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# DIONNE PRICE PUBLIC LECTURE SERIES



## *Honoring the Legacy of Dionne Price and Her Commitment to Public Good*

**In honor of 2023 ASA President Dionne Price**, the ASA established the Dionne Price Public Lecture Series.

Dionne chose the theme “One Community: Informing Decisions and Driving Discovery” for the Joint Statistical Meetings because of her deep commitment to working for the public good.

The ASA launched a \$75,000 endowment campaign to fund the lecture series and ensure Dionne’s name remains synonymous with promoting the practice and profession of statistics for generations to come.

### The Lecture Series Aims to:

- Highlight the impact of statistics and data science on society, the sciences, and the public good
- Inspire future statisticians and data scientists
- Foster interdisciplinary discussion
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**Together**, we will inform decisions and drive discovery through the Dionne Price Public Lecture Series.