

# BCASA NEWSLETTER

*Boston Chapter of the American Statistical Association*

Proudly serving

Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

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Homepage: <http://community.amstat.org/bostonchapter/home>

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## SCHEDULED EVENTS & MEETINGS

<b>September 28, 2019</b>	<b>New England Symposium on Statistics in Sports (NESSIS)</b>	<b>Cambridge, MA</b>
<b>October 7, 2019</b>	<b>Undergraduate Teaching Award Lecture</b>	<b>Cambridge, MA</b>
<b>October 11, 2019</b>	<b>New England Rare Disease Statistics (NERDS) Workshop</b>	<b>Boston, MA</b>
October 23, 2019	Distinguished Statistician Colloquium	Storrs, CT
October 23-25, 2019	Harvard Data Science Initiative Conference	Cambridge, MA
October 29, 2019	World Statistics Day at Boston University	Boston, MA
<b>November 2, 2019</b>	<b>New England Isolated Statisticians Meeting</b>	<b>Wellesley, MA</b>
<b>November 16, 2019</b>	<b>Traveling Short Course of the ASA</b>	<b>Boston, MA</b>
<b>February 28, 2020</b>	<b>Analytics Without Borders Conference</b>	<b>Boston, MA</b>

\*Events in bolded letters are sponsored by BCASA

### 2020 BCASA AWARD Nomination Submission Deadlines

October 31, 2019	Mosteller Statistician of the Year Award	See page 19
April 30, 2020	Statistical Outreach and Literacy Award	See page 20

Event schedule at the chapter website: <http://community.amstat.org/bostonchapter/home>

Detailed announcements appear later in this newsletter. All events are announced in advance on our website and through emails to our members. We are currently planning events for the coming year. If you have suggestions, please contact Program Chair Olga Vitek at [o.vitek@northeastern.edu](mailto:o.vitek@northeastern.edu).

## *Program Chair Report*

By Olga Vitek

Dear BCASA members:

As a first-year officer and program chair of BCASA, I am delighted to report on the many activities sponsored by our chapter in the last academic year. The chapter invested a lot of effort to sponsor activities that have a great diversity of topics, speakers and locations, and are both educational and fun.

The year began in September with an awards dinner celebrating Outstanding Undergraduate Teaching of Statistics. This event was held at Brown University and featured a lecture by the awardee Nick Horton, Beitzel Professor in Technology and Society at Amherst College. His lecture provided a perspective on introductory statistics in a world of data science. Also, in September, the Chapter supported StatFest at Amherst College, a one-day event encouraging undergraduate students from under-represented groups to pursue careers in statistics.

October was marked by an ASA short course held at Boston University on analysis of incomplete data by Prof. Ofer Harel from the University of Connecticut. The course was excellent, and we were delighted that so many of you were able to attend. Also, in October, the New England Isolated Statisticians Meeting (NEISM23) took place at the beautiful Wellesley College, to provide an opportunity for isolated statisticians to learn from one another and to network.

In November, BCASA co-sponsored a lecture by Harvard Professor Susan Murphy on “Stratified Micro-Randomized Trials with Applications in Mobile Health” that took place at MIT. We are grateful to Roy Welsch for helping us organize this event.

In January we celebrated the new year with our potluck mid-winter party. The event was held at the Springhouse retirement community in Jamaica Plain, home of Herman Chernoff and his wife Judy. The dire weather of snow and sleet did not prevent us from having a good time. Chapter members enjoyed home-made delicious culinary treats, met old friends and made new ones.

In March, we gathered at Simmons College to celebrate the 2019 Mosteller Statistician of the Year Award. This year’s winner was Constantine Gatsonis, Henry Ledyard Goddard University Professor at Brown University. Professor Gatsonis’s lecture on radiomic markers for diagnosis and prediction covered an area where he has made numerous important contributions.

The BCASA third annual Boston Pharmaceutical Symposium in May was another highlight of the spring term. Nearly 100 statisticians gathered at Pfizer’s building in Cambridge to discuss statistical methodological research and its applications to biotech and pharmaceutical industry. The participants had a wide variety of backgrounds, representing industry and academia, and many were first-time attendees of BCASA events. The Chapter is grateful for the financial support from Cytel, which allowed us to make this meeting accessible to students and postdocs.

The Chapter also co-sponsored a course with the May Institute on computation and statistics for mass spectrometry and proteomics at Northeastern University, which brought together 150 participants from the Boston area and world-wide, interested in statistical practice in this biotechnology. Also in May, we were excited to have a Chapter visit by Prof. Karen Kafadar, Chair and Commonwealth Professor of at the University of Virginia and current ASA President. This event was hosted by the Department of Statistics at Harvard University. Her presentation focused on the critical role of statistics in evaluating forensic evidence.

I would like to use this opportunity to thank the members of the planning committee and the many volunteers who generously donated their time and resources to make these events a success. And thanks to all of you who attended. Please see below for information on some exciting events planned for this fall. I hope that all the BCASA members will find a good match to their interests and skills. Please continue to follow our newsletter for the updates, and do not hesitate to contribute suggestions. I look forward to seeing you at all.

## UPCOMING FALL EVENTS

### *New England Symposium on Statistics in Sports (NESSIS) on September 28*

**Date:** Saturday, September 28, 2019

**Location:** Harvard University Science Center, 1 Oxford Street, Cambridge, Massachusetts

**Conference co-chairs:** Mark Glickman and Scott Evans

The 2019 New England Symposium on Statistics in Sports is a meeting of statisticians and quantitative analysts connected with sports teams, sports media, and universities to discuss common problems of interest in statistical modeling and analysis of sports data. The symposium format is a mixture of invited talks, a poster session, and a panel discussion. Abstract submission and conference registration will open early 2019. A link to sign up for the NESSIS mailing list is available at <http://www.nesis.org/>. Selected presentations from the 2017 NESSIS can be found at <http://www.nesis.org/nessis17.html>.

## *Outstanding Undergraduate Teaching Award Lecture on October 7*

**Date:** Monday, October 7, 2019

**Time:** Dinner, 6:15-7:00 pm

Award/Presentation, 7:00-8:00 pm

**Location:** Science Center 705, Harvard Statistics Department,  
1 Oxford St, Cambridge, MA 02138

**Speaker and Awardee:** Ben Baumer, Smith College

**Cost:** Presentation and Dinner – \$10 BCASA members, \$30 Non-members,  
\$5 Students; Presentation only – Free

**Registration:** <https://bcasa2019teaching.eventbrite.com>



**Title:**

The New Roaring Twenties: Imagining statistics and data science curricula in the coming decade

**Abstract:**

If the next decade is anything like its 20th century predecessor, it will be a period of rapid change. New technologies will transform society and bring new capabilities to large segments of the population. We explore how the statistics and data science curriculum can change in the coming decade to meet challenges brought by greater emphasis on existing competencies (e.g., data wrangling and visualization), new paradigms (e.g., big data and cloud computing), and modern manifestations of old concepts (e.g., ethics and computational literacy).

**About the speaker:**

Ben Baumer is an Assistant Professor in the Statistical & Data Sciences Program at Smith College. He completed his Ph.D. in Mathematics at the Graduate Center of the City University of New York in 2012. Since 2014, he is an Accredited Professional Statistician™ by the American Statistical Association. Previously, he was the Statistical Analyst for the Baseball Operations department of the New York Mets, a position he held from 2004 to 2012. He is an inspirational teacher and was honored by the Waller Education Award at the 2019 JSM in Denver.

## *2019 New England Rare Disease Statistics (NERDS) Workshop on October 11*

**Date:** Friday, October 11, 2019

**Location:** Seaport Hotel in Boston, Massachusetts

**Website:** <https://nerds.nestat.org>



**Background:** The last 10-15 years have seen great emergence of drug development efforts in the rare disease space. Contributing factors include increased public awareness, encouraging drug regulation changes, scientific advancement in cellular/molecular biology and genetics, development of innovative trial designs, large influx of capital investment, availability of scientific talent through decades of cultivation, etc. As a result, a great number of regulators, academicians, and industry statisticians now work to bring these orphan drugs to patients, facing unique technical issues and challenges. The Chapter is therefore pleased to co-sponsor this workshop which provides statisticians across the entire rare disease drug development spectrum a forum to exchange ideas and share experiences, and to network.

### **Program Highlights:**

- State-of-art approaches to borrowing information from historical data
  - Confirmatory basket trial and informational design
  - Experience sharing with case studies on propensity score matching
  - Bayesian dynamic borrowing through hierarchical modeling
  - Rank-based method to combine information across multiple endpoints
  - Virtual 1-to-many matching between a single arm trial and natural history controls
  - Bayesian approaches for registrational pediatric cancer trials
- (Check details at <http://nerds.nestat.org/program.html>)

Registration is now open at <https://nerds.nestat.org/registration-info.html>

Current Sponsors:

(For sponsorship, please visit <https://nerds.nestat.org/sponsors.html>)



## *The 24th New England Isolated Statisticians Meeting (NEISM24) on November 2*

**Date:** Saturday, November 2, 2019

**Location:** Wellesley College, Wellesley, Massachusetts

**Registration:** <https://neism24.eventbrite.com>

The 24th New England Isolated Statisticians Meeting (NEISM24) will be held on Saturday, November 2, 2019, from 9:30 AM to 4:30 PM. The meeting will take place at beautiful Wellesley College in Wellesley, Massachusetts. This annual event is a wonderful opportunity for isolated statisticians (usually, but not always, in mathematics departments) to network with other statisticians, learn some new best practices, discuss current trends, and of course to have a little bit of fun!

We plan to charge a modest registration fee for attending NEISM24, which includes breakfast, lunch, and light refreshments during the day. We firmly believe that NEISM24 will be more than worth the cost. To suggest topics to be featured at this year's meeting, please click the link below. We appreciate your suggestions!

<https://tinyurl.com/neism24topics>

To register, please go to: <https://neism24.eventbrite.com>

If you have any questions or comments, please do not hesitate to contact any one on the NEISM24 Organizing Committee.

Wendy Wang – [qwang@wellesley.edu](mailto:qwang@wellesley.edu)  
Cassandra Pattanayak - [cpattanayak@wellesley.edu](mailto:cpattanayak@wellesley.edu)  
Robert Carver – [rcarver@stonehill.edu](mailto:rcarver@stonehill.edu)  
Bob Goldman – [goldman@simmons.edu](mailto:goldman@simmons.edu)  
John McKenzie – [mckenzie@babson.edu](mailto:mckenzie@babson.edu)  
Michael Salé – [msale@stonehill.edu](mailto:msale@stonehill.edu)

***ASA Short Course on “Guidelines for Using State-of-the-Art Methods to Estimate Propensity Score and Inverse Probability of Treatment Weights When Drawing Causal Inferences” on November 16***

**Date:** Saturday, November 16, 2019 (All day event)

**Location:** Cargill 097 (CG 097), Northeastern University, 45 Forsyth St, Boston, MA 02115

**Map:** <https://goo.gl/maps/DxUdySJaJctyyNG58>

**Instructor:** Beth Ann Griffin, RAND Corporation

**Cost:** Academic/nonprofit, BCASA Member, \$30; Academic/nonprofit, Non-member \$60; Industry, BCASA member \$135; Industry, Non-member \$165; Late registration (starting Nov 1<sup>st</sup>) will incur an additional charge. (Note: Information on how to join the Boston Chapter is provided elsewhere in this newsletter).

**Registration:** <https://bcasa2019propensity.eventbrite.com>

On Saturday, November 16, 2019, the Boston Chapter will be hosting a one-day short course brought to us by the ASA’s Council of Chapters under their traveling short course program.

This full-day course will take place in Cargill 097 on the campus of Northeastern University, 45 Forsyth St, Boston, MA 02115. The detailed information will be posted on our website. Registration includes course materials, light refreshments and lunch. Please contact Olga Vitek [o.vitek@northeastern.edu](mailto:o.vitek@northeastern.edu) for more information.

**Course Abstract:**

Estimation of causal effects is a primary activity of many studies. Examples include testing whether a substance abuse treatment program is effective, whether an intervention improves the quality of mental health care, or whether incentives improve retention of military service members. Controlled, random-assignment experiments are the gold standard for estimating such effects. However, experiments are often infeasible, forcing analysts to rely on observational data in which treatment assignments are out of the control of the researchers. This short course will provide an introduction to causal modeling using the potential outcomes framework and the use of propensity scores and weighting (i.e., propensity score or inverse probability of treatment weights) to estimate causal effects from observational data. It will also present step-by-step guidelines on how to estimate and perform diagnostic checks of the estimated weights for testing the relative effectiveness of two or more interventions. Attendees will gain hands-on experience estimating propensity score weights using boosted models in R, SAS and Stata; evaluating the quality of those weights; and using them to estimate intervention effects. Additional topics (if time allows) can also include methods for conducting sensitivity analyses for unobserved confounding and estimation of the effects of time-varying treatments. Attendees should be familiar with linear and logistic regression; no knowledge of propensity scores is expected.

**About the instructor:**

Beth Ann Griffin is a senior statistician at the RAND Corporation Inference and is a member of the Pardee RAND Graduate School faculty. Her statistical research focuses on causal effects estimation



when using observational data. Her substantive research has primarily fallen into three areas: (1) substance abuse treatment for adolescents, (2) military health, and (3) gun policy research. She is currently the principal investigator of two projects sponsored by the National Institute of Drug Abuse (NIDA), one which is focused on improving a promising health services research tool (the TWANG package) for estimating causal effects of treatment using propensity score weights ([www.rand.org/statistics/twang](http://www.rand.org/statistics/twang)) and the other which aims to develop well-operationalized, empirically-supported sequences of decision rules—known as “Adaptive Interventions” (AIs)—to provide guidance about substance-use services decisions for adolescent clients. Griffin also serves on the editorial board of the *Annals of Applied Statistics*, *Statistics in Medicine* and *Observational Studies*. She received her Ph.D. in biostatistics from Harvard University.



### ***Call for submissions: The 5<sup>th</sup> Analytics Without Borders Conference***

**Date:** Friday, February 28, 2020

**Location:** Tufts University, Boston, MA

You are invited to submit your presentation to the 5<sup>th</sup> Analytics Without Borders conference. This conference is a forum for all ways of analytics life to present and discuss analytics work, be it from corporate institutions, academia, government organizations etc. All groups will be able to interact with each other and thus build bridges between the different analytics constituencies.

Topics are broad in analytics, including applied statistics, optimization, data science, etc. Anyone who does anything with data is warmly invited to present their work. Sessions will include a blend of corporate, academic and government researchers and practitioners.

Submission due day is **Feb 14<sup>th</sup>, 2020**. Please visit our online submission page: <https://www.bentley.edu/analytics-without-borders/call-presentations-and-posters>. Please visit our conference website for more details. <https://www.bentley.edu/academics/analytics-without-borders>

## OTHER LOCAL AND REGIONAL EVENTS

### *Harvard Data Science Initiative – 2019 Conference on October 23-25*

**Date:** Wednesday – Friday, October 23-25, 2019

**Location:** Cambridge, Massachusetts

The Harvard Data Science Initiative is pleased to announce the dates of its second Annual Conference, to take place on October 23, 24, and 25, 2019 in Cambridge, MA. The conference showcases data science in research and education through panels, keynotes, workshops, and tutorials featuring speakers from across Harvard, academia, and industry.

The Conference connects expert methodologists, data science professionals and educators across disciplines to ignite new discoveries with impacts on health, education, economics, social policy, business and the humanities.

**Oct 23:**

The first day of the HDSI conference will feature plenary sessions and panels that discuss methodological advances and explore how data science connects with evidence-based policy, the urban environment, scientific discovery, and business.

**Oct 24:**

The second day of the conference offers participants the opportunity to attend in-depth tutorials led by leading faculty and researchers on Causal Inference and Unsupervised Deep Learning.

**Oct 25:**

The final day of the conference is dedicated to the Harvard Data Science Review and will bring together leading thinkers around questions related to differential privacy for the 2020 Census, redistricting (aka, Gerrymandering), and data science education.

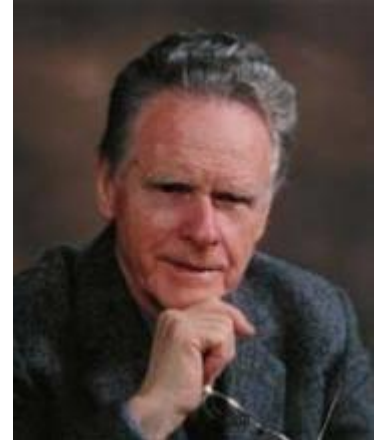
Further information about the conference can be found at <https://www.hdsiconference.org/>.

## *25<sup>th</sup> Pfizer/ASA/UConn Distinguished Statistician Colloquium on October 23*

**Date:** Wednesday, October 23, 2019

**Location:** University of Connecticut, Storrs, CT

The Department of Statistics at the University of Connecticut is honored to announce the 25th Distinguished Statistician Colloquium. The Pfizer colloquium series ran from 1978 until 2012 and was renewed in 2018. The colloquium series featured C. R. Rao, Bradley Efron, D.R. Cox, and many more. For a complete list, see <https://stat.uconn.edu/pfizer-colloquium/>. The purpose of the Colloquium is to provide a forum for a distinguished statistician to share and disseminate their unique perspective and work in the theory and/or application of statistics. Starting from 2018, the series has been co-sponsored by Pfizer, the American Statistical Association, and the Department of Statistics at the University of Connecticut.



This year's speaker at the 25th Pfizer Distinguished Statistician Series will be Prof. Arthur P. Dempster from Harvard University. The colloquium will take place on October 23rd, 2019, in Storrs, CT. The interview will be conducted by Nan Laird (Harvard University), Ruobin Gong (Rutgers University), and Peng Ding (University of California, Berkeley). The lecture and the interview are open to the public. The reception and banquet require registration. For inquiries about attending the event, please contact the chair of the local organizing committee, Haim Bar, at [haim.bar@uconn.edu](mailto:haim.bar@uconn.edu). We thank Pfizer and the ASA for their generous financial support. We also thank the members of the selection committee – Dan Meyer and Demissie Alemayehu from Pfizer, Ron Wasserstein and Nancy Flournoy from the ASA, and Dipak Dey (Chair), Joseph Glaz and Ming-Hui Chen from UConn. Professor Chen also represents the New England Statistical Society (NESS).



## *World Statistics Day at Boston University on October 29*

BU's Student Chapter of the ASA (BUSCASA) is proud to announce Xiao-Li Meng as the 2019 speaker for World Statistics Day. Professor Meng, a key member of the Astrostat community and recent co-author of "The Next Decade of Astroinformatics and Astrostatistics," will be discussing the intersection of statistics and outer space. This topic is particularly relevant given the recent release of the first image of a black hole, the proposed Space Force, and July being the 50th anniversary of the Moon landing. Professor Meng's talk will take place on Tuesday, October 29 from 12:30-1:30pm. Additional information will be posted on the Boston Chapter's website later this month.

## HIGHLIGHTS FROM SOME RECENT CHAPTER EVENTS

### *Third Annual Boston Pharmaceutical Symposium Held on May 3*

The BCASA Third Annual Boston Pharmaceutical Symposium took place on May 3, 2019 at Pfizer's building in Cambridge Massachusetts. Nearly 100 statisticians gathered to discuss statistical methodological research and its applications to biotech and pharmaceutical industry, and to develop connections. The participants had a wide variety of backgrounds, representing industry and academia, senior investigators, students and postdocs, and many were first-time attendees of BCASA events.

Weidong Zhang, the symposium's host and a member of the symposium's organizing committee kicked off the event by a short introduction, followed by two welcome addresses from Pfizer leadership team members. Then, 10 invited speakers representing Cytel, Biogen, Novartis, MD Anderson Cancer Center, Harvard University and Pfizer discussed topics on promising zone design, clinical development plans, drug-related safety signals, basket trial design, Bayesian optimal design, adaptive design in East 6.5, translational data science, co-data use in clinical trial, prognostic model construction by statistical learning method, meta-data for Emax model, etc. The audience had ample opportunities to interact during breaks, meet old colleagues and create new contacts. More information regarding the speakers, and the slides of the presentations, are available at

<https://community.amstat.org/bostonchapter/upcoming-events/boston-pharmaceutical-symposium>

BCASA thanks the symposium's organizing committee (Olga Vitek, Northeastern University (chair); Weidong Zhang, Pfizer (host); Wenting Cheng, Biogen; Tim Clough, Novartis; Hrishikesh Kulkarni, Cytel; Andrew Lewandowski, Novartis; Jameson Luks, Cytel; Huyuan Yang, Alnylam Pharmaceuticals) for planning the event, as well as the Pfizer event team for hosting the symposium. We also extend our appreciation to the Bentley University student volunteers for the on-site coordinating work.

BCASA gratefully acknowledges financial support from Cytel.

*Photos from the third annual Boston Pharmaceutical Symposium in May:*



## *ASA President Karen Kafadar visits the Boston Chapter*

On May 6, we were privileged to have a visit by the President of the American Statistical Association, Dr. Karen Kafadar. Karen Kafadar is Chair and Commonwealth Professor of Statistics in the Department of Statistics at the University of Virginia. Prior to moving to University of Virginia in 2014, Karen was Rudy Professor of Statistics at Indiana University. She has also worked for the National Institute of Standards and Technology, Hewlett Packard, the National Cancer Institute, and the University of Colorado Denver. Karen was Editor of *Technometrics* (1999–2001), President of the International Association for Statistical Computing (2011–2013), and currently is Editor-in-Chief of the *Annals of Applied Statistics*.

In her presentation entitled “The Critical Role of Statistics in Evaluating Forensic Evidence”, Karen noted that while statisticians have made valuable contributions to many areas of science, the use of statistics in forensic science has not been nearly as extensive, given its importance (ensuring proper administration of justice) and the value it has demonstrated thus far (e.g., forensic DNA, assessment of bullet lead evidence, U.S. anthrax investigations, and reliability of eyewitness identification). Forensic methods in many areas remain unvalidated, as recent investigations have highlighted (notably, bite marks and hair analysis). Karen provided examples where statistics has played a vital role in evaluating forensic evidence and suggested further areas where statisticians can make a big impact, towards the ultimate goal of strengthening forensic evidence to achieve its mission: to raise the level of confidence in the reliability of evidence in the criminal justice system.

## JOURNAL NEWS AND ANNOUNCEMENTS

### *Journal of Statistics Education Welcomes Papers for Special Issue on “Computing in the Statistics and Data Science Curriculum”*

In 2020 it will have been 10 years since Nolan and Temple Lang's paper "Computing in the Statistics Curriculum" was published (The American Statistician, 2010, 64(2):97-107). In that influential paper Nolan and Temple Lang wrote:

- The nature of statistics is changing significantly with many opportunities to broaden the discipline and its impact on science and policy.
- To realize this potential, our curricula and educational culture must change. While there are opportunities for significant change in many dimensions, we focus more narrowly on computing and call for computing concepts to be integrated into the statistics curricula at all levels.
- Computational literacy and programming are as fundamental to statistical practice and research as mathematics.
- We advocate that our field needs to define statistical computing more broadly to include advancements in modern computing, beyond traditional numerical algorithms.
- Information technologies are increasingly important and should be added to the curriculum, as should the ability to reason about computational resources, work with large datasets, and perform computationally intensive tasks.
- We present an approach to teaching these topics in combination with scientific problems and modern statistical methods that focuses on ideas and skills for statistical inquiry and working with data.
- We outline the broad set of computational topics we might want students to encounter and offer ideas on how to teach them.
- We also discuss efforts to share pedagogical resources to help faculty teach this modern material (including supplemental materials).

The Nolan and Temple Lang paper has been highly cited and has prodded the statistics community to embrace computation as a foundation as important as mathematics. Ten years after publication, what has changed? What still needs to change? What's needed to implement curricular shifts?

To further these discussions the Journal of Statistics Education is planning a set of themed papers to coincide with the tenth anniversary of the publication of "Computing in the Statistics Curriculum". They are inviting submissions that address the questions above and related questions.

#### TIMETABLE:

- August 1, 2019 (call for submissions)
- October 1, 2019 (request for submission of draft abstracts and working title to the following Google form <https://forms.gle/gygMiZV4H4iMjvaw7>)

- December 1, 2019 (call for reviewers)
- December 15, 2019 (deadline for submissions via the Journal of Statistics Education submission site <https://mc.manuscriptcentral.com/ujse>, please select the special issue "Computing in the Statistics and Data Science Curriculum")
- March 15, 2020 (working deadline for initial editorial decisions)
- July 2020 (working deadline for final revisions)
- November 2020 (proposed publication date)

QUESTIONS? Please contact the guest editors for the cluster of papers: Johanna Hardin (Pomona College) at [Jo.Hardin@pomona.edu](mailto:Jo.Hardin@pomona.edu) and Nicholas Horton (Amherst College) at [nhorton@amherst.edu](mailto:nhorton@amherst.edu) or Jeffrey Witmer (JSE Editor in Chief) at [jeff.witmer@oberlin.edu](mailto:jeff.witmer@oberlin.edu)

A flier can be found at <https://nhorton.people.amherst.edu/JSEFlier2.pdf>



## *Harvard Data Science Review*

Harvard has just announced the launch of the journal Harvard Data Science Review (HDSR):

[https://news.harvard.edu/gazette/story/newsplus/multimedia-data-science-platform-launches-for-readers/?preview\\_id=280062&from=singlemessage&isappinstalled=0](https://news.harvard.edu/gazette/story/newsplus/multimedia-data-science-platform-launches-for-readers/?preview_id=280062&from=singlemessage&isappinstalled=0)

The digital edition, free to readers around the globe, features:

- An editorial by Harvard University Provost Alan Garber on essential knowledge of data science for educated citizens
- A trio of articles on perspectives of data and data science from leading scholars respectively from social science, humanities and science
- An industry perspective on the importance of balancing prediction and inference for business decision making
- A trio of articles on the nature and history of AI and its roles in society
- An interview with the co-chairs of a National Academies of Science report on undergraduate education in data science
- More technical articles on authorship attribution of Lennon-McCartney songs (which contains interactive musical features)
- Predicting drug approvals by U.S. Food and Drug Administration (which provides predictions for drugs currently waiting for approval)
- The “From the Editor-in-Chief” provides a succinct summary of both the current general understanding of the concept of “Data Science” and the 14 articles in the first issue

Dr. Xiao-Li Meng, Whipple V.N. Jones Professor of Statistics at Harvard, also the Founding President of NESS (Society), serves as the inaugural Editor-In-Chief. The digital edition of the journal can be accessed at <http://hdsr.mitpress.mit.edu>.

Anyone who is interested in submitting an article can write to Dr. Xiao-Li Meng directly at [xlmeng@g.harvard.edu](mailto:xlmeng@g.harvard.edu).

## *Changes in Guidelines for Statistical Reporting*

On July 18, 2019, the *New England Journal of Medicine* has become the first major journal to change its guidelines for statistical reporting in response to the [ASA Statement on P-values and Statistical Significance](#) and subsequent [The American Statistician special issue on statistical inference](#). These changes show that the *NEJM*, with the highest impact factor in the world, is successfully continuing the discussion about statistical practices in research started by the ASA five years ago.

The [NEJM editorial](#) includes several ASA members as co-authors and describes the rationale for changes to its [statistical guidelines to authors](#), which have been expanded to include both clinical trials and observational studies. Notably, the journal now requires authors to replace p-values with both point estimates and 95% confidence intervals when neither the study protocol nor the data analysis plan included adjustments for multiple testing.

The following link points to the NEJM article that contains the editorial:  
<https://www.nejm.org/toc/nejm/381/3>

## AWARDS AND RECOGNITIONS

**Professor A. James O'Malley of Dartmouth** is the recipient of the **2019 ISPOR Award for Excellence in Methodology in Health Economics and Outcomes Research**. He is awarded this distinction as corresponding author of the research paper: *"Modeling a Bivariate Residential-Workplace Neighborhood Effect when Estimating the Effect of Proximity to Fast-Food Establishments on Body Mass Index," Stat Med 2018 Nov 20. 10.1002/sim.8039*. To learn more about this award, please see [www.ispor.org/about/awards-grants/](http://www.ispor.org/about/awards-grants/). Congratulations to Prof. O'Malley!  
<http://bmds.dartmouth.edu/faculty/james-omalley-phd>

**Herbert I. Weisberg**, President of Causalytics, LLC, and long-time member and 1976-79 President of the Boston Chapter received the **W. J. Dixon Award for Excellence in Statistical Consulting** at the 2019 Joint Statistical Meetings in Denver. The award was given to Herb *"For his integrity and excellence in statistical consulting that fosters longstanding client relationships; for adding to the statistical body of knowledge and improving general statistical practice in varied areas of application; and for promoting greater understanding of statistical analyses through skilled, effective communication"*.

**Benjamin Baumer**, Professor at Smith College, received the **Waller Education Award** at the 2019 Joint Statistical Meetings in Denver. The award was given to Ben *"In recognition of his outstanding contributions to and innovations in the teaching of elementary statistics"*.

**Miguel A. Hernan**, Kolokotronis Professor of Biostatistics and Epidemiology at the Harvard T.H. Chan School of Public Health, and **Sebastien J-P. A. Haneuse**, Associate Professor of Biostatistics at the Harvard T.H. Chan School of Public Health, were elected as **Fellows of the American Statistical Association** at the 2019 Joint Statistical Meetings in Denver.

Also recognized at the 2019 JSM were Smith College, Mount Holyoke College, Amherst College, Hampshire College, University of Massachusetts – Amherst, and MassMutual Financial Group, who were given the **Statistical Partnerships Among Academe, Industry, and Government (SPAIG) Award** *"For fostering a diverse and inclusive community around statistics and data science that celebrates academic research, excellence in higher education, and innovative data-driven solutions"*. The SPAIG Award was established in 2002 to recognize outstanding partnerships between academe, industry, and government organizations, as well as to promote new partnerships among these organizations. Main contributors for this award were Benjamin Baumer, Smith College; Andrea S. Foulkes, Mount Holyoke College; Krista Gile, University of Massachusetts; Nicholas J. Horton, Amherst College; David Jensen, University of Massachusetts; Andrew McCallum, University of Massachusetts; Sears Merritt, MassMutual; Ethan Meyers, Hampshire College; Nick Reich, University of Massachusetts; Gareth Ross, MassMutual; and Amy Wagaman, Amherst College.



*SPAIG awardees and ASA President: from left to right Karen Kafadar (ASA President), Ben Baumer (Smith College), Andrea Foulkes (Mount Holyoke College), Nicholas Horton (Amherst College), and Ethan Meyers (Hampshire College).*

## **BOSTON CHAPTER NEWS AND ANNOUNCEMENTS**

### *Nominations Sought for the 2020 Mosteller Statistician of the Year Award*

We are currently seeking nominations for our 2020 Statistician of the Year award. The BCASA Mosteller Statistician of the Year award is presented each year at a dinner/lecture in February or early March to a distinguished statistician who has made exceptional contributions to the field of statistics and has shown outstanding service to the statistical community, including the Boston Chapter. The honoree may be from academia, industry, or government.

Please forward all nominations by October 31, 2019 to Joe Blitzstein at [blitz@fas.harvard.edu](mailto:blitz@fas.harvard.edu). Please include a brief description of the candidate's qualifications for the award. Following the deadline, the members of the Planning Committee will meet to select the winner.

The winner of this award in 2019 was Professor Constantine Gatsonis from Brown University. A complete list of past winners can be found at <http://community.amstat.org/bostonchapter/awards/mostellerstatistician>.

## *Nominations for the Statistical Outreach and Literacy Award*

Nominations are now being accepted for the first BCASA Statistical Outreach and Literacy Award. The aim is to acknowledge contributions to statistical literacy and outreach in the public domain. For instance, the candidate may have furthered the understanding of statistics through utilizing statistical or graphical methods in electronic or print media, in conference presentations or other public forums, or by offering training courses on statistical topics in the US or abroad. The candidate may have reached out to further the use of statistics in other disciplines. He or she may have inspired an understanding of a public issue through the use of statistics. Candidates need not be affiliated with academia. This award will ordinarily be given every two years.

The deadline for nominations for the 2020 award is April 30, 2020. The awardee will be asked to give a presentation in the fall of 2020.

The awardee will:

- Have a connection with the BCASA catchment area of MA, RI, NH, VT, or ME. This could include:
  - Having lived or worked in the area;
  - Having been a member of the BCASA;
  - Having studied or reported on an issue that is relevant to persons living in the area.
- Have made a substantial contribution to statistical literacy and outreach through the print or electronic media or through public forums. This could include but is not limited to:
  - Framing a public problem using effective use of statistical reasoning
  - Making statistical reasoning accessible to a public audience
  - Illustrating social trends with statistical graphics

Further:

- Winners of the BCASA's Mosteller Statistician of the Year Award and the Undergraduate Outstanding Teaching Award will not be eligible for this Literacy/Outreach Award.
- Nominees unsuccessful in one year may be reconsidered in succeeding years.

Nominations should include:

- Nomination form
- Letter of nomination (no more than four pages)
- Two or more (up to four) letters of support (no more than two pages each)
- Candidate's CV

For more information about the award please contact Shannon Stock at [sstock@holycross.edu](mailto:sstock@holycross.edu) or Mariam Chernoff at [mchernoff@sdac.harvard.edu](mailto:mchernoff@sdac.harvard.edu).

Nominations forms may be found on the BCASA website at <http://community.amstat.org/bostonchapter/awards/literacy>.

### ***Three New Chapter Officers Elected for Terms Starting January 1, 2020***

On May 6, the chapter elected the following officers for two-year terms starting on January 1, 2020:

**Vice President:** Shannon Stock (Holy Cross, Worcester)

**Secretary:** Wenting Cheng (Biogen Inc.)

**Treasurer:** Lisa Mukherjee (Consultant)

We thank them for their willingness to serve. The next chapter elections will take place in May 2020 when four new officers will be elected. Details will be announced in our next newsletter.

### ***Mu Sigma Rho Membership Nominations Sought***

Mu Sigma Rho is the national honorary society for statistics. Its purpose is to promote and encourage scholarly activity in statistics and the recognition of outstanding achievement among the students in eligible academic institutions.

Both undergraduate and graduate students can be nominated. Information about BCASA's chapter of Mu Sigma Rho is available at <http://community.amstat.org/bostonchapter/awards/musigmarho>. Instructions on how to nominate students can be found at <http://www.colby.edu/musigmarho/> or by contacting Liam O'Brien at [lobrien@colby.edu](mailto:lobrien@colby.edu).

Additional information about Mu Sigma Rho can be found at: <https://www.stat.purdue.edu/msr/>.

### ***Please Join the BCASA Planning Committee***

Chapter activities are planned and organized by a core group known as the Planning Committee. Please consider joining us. The committee is open to all interested chapter members, regardless of whether they are also members of the ASA. We meet approximately every six weeks to plan upcoming activities for the chapter. The meetings are held in the evening and dinner is provided. For more information contact Chapter Vice-President Miriam Chernoff ([mchernoff@sdac.harvard.edu](mailto:mchernoff@sdac.harvard.edu)).

## *How Do I Join the Boston Chapter?*

You can join the Boston Chapter when you join the American Statistical Association (ASA) or renew your ASA membership. ASA members who wish to join the Boston Chapter at other times should complete the printed application form available at <http://community.amstat.org/bostonchapter/joinbcasa> and send it directly to the ASA.

However, you can be a member of the Boston Chapter without being an ASA member. To join the Boston Chapter without joining the ASA, write a check for \$10 (\$4 for students) made payable to BCASA, and send it directly to our Treasurer at:

Boston Chapter of ASA  
c/o Lisa Mukherjee  
PO BOX 200766  
Boston, MA 02120

Provide your name, address, and email address. Members receive an electronic subscription to the chapter newsletter, discounts at some events, and an opportunity to join our e-mail list for other announcements. A membership application form is available at <http://community.amstat.org/bostonchapter/joinbcasa>.



## JOB OPPORTUNITIES

**Note:** Job opportunities sent to Elizabeth Kane, BCASA Newsletter Editor at [kane1215@bu.edu](mailto:kane1215@bu.edu) will be included in a future BCASA newsletter.

### *Biostatistics Faculty, Open Rank (Special & Scientific Staff - CTSI)*

Institution: [Tufts Medical Center](#)

Location: Boston, MA

Type: Full-Time

Tufts Clinical and Translational Science Institute (CTSI) and the Institute for Clinical Research and Health Policy Studies (ICRHPS) at Tufts Medical Center seek a faculty Biostatistician to provide methodological leadership for innovative and collaborative clinical research and teaching. Our institutes provide a supportive academic environment for original methodological research and ample opportunities for collaboration.

Tufts statisticians have a track record of success, working closely with clinician researchers to develop predictive models used worldwide to predict health outcomes for patients with myocardial infarction and kidney disease. They have also been integral to the production of high-impact methodological advances, such as innovations in meta-analytic techniques, more efficient clinical trial design, and evaluation of the heterogeneity of treatment effects.

#### **Our Biostatisticians:**

- Are based in our Biostatistics, Epidemiology, and Research Design (BERD) Center.
- Are eligible for Tufts University faculty appointments.
- Collaborate with clinical, health services, and basic science researchers throughout Tufts University, Tufts Medical Center, and their affiliates.
- Publish often.
- Teach and mentor MS/PhD students in our acclaimed Clinical and Translational Science Graduate Program.
- Researchers in all areas of biostatistics are encouraged to apply.

#### **Responsibilities:**

- Provides methodological leadership to multidisciplinary teams engaged in research in the biomedical and clinical sciences, behavioral and social sciences, community-engaged research, public health studies, and health policy research.
- Teaches biostatistics classes within Tufts CTSI's Clinical and Translational Science Graduate Program at the Tufts University's Sackler School of Biomedical Sciences.

- Mentors and assists fellows and junior faculty with their research projects, from design to analysis. Devotes effort to specific research grants as a collaborating statistician-investigator and supervises master's level statisticians who work on those projects.
- Initiates and carries out independent research on methodological issues. Responsible for seeking independent funding by writing grant applications.
- Assists investigators throughout the Tufts community with study design, statistical analyses, and methodological questions related to their research projects, pre- and post-award.
- Works collaboratively with research departments across the Tufts campus and affiliated organizations and engages in a high level of interdisciplinary activity.

**Requirements:**

- The candidate should have a PhD in biostatistics with a strong record of collaboration with clinicians. A track record of academic productivity, funding, and innovation is expected.
- An understanding of the span of biostatistics and study design is required, as is an ability to recognize opportunities to use or develop novel methods.
- Classroom teaching experience is required.
- The ideal candidate will have excellent communication skills in translating complex concepts to non-methodologically expert audiences.
- Demonstrated potential for securing external funding, as an independent investigator or collaborating methodologist, is desirable.
- To apply: please submit your CV and cover letter through Tufts Medical Center's online system: <https://pm.healthcaresource.com/CS//wel#/job/3642>

### *Assistant Professor of Statistics at Mount Holyoke College*

The Department of Mathematics and Statistics, which has offered a major in statistics for 30 years, invites applications for a tenure-track position in statistics at the Assistant Professor level to begin fall 2020. Qualifications include a doctorate (completed or anticipated by fall 2020), a commitment to teaching and scholarship in a liberal arts environment, and evidence of classroom effectiveness. A well-established candidate at the Associate Professor level will also be considered.

Mount Holyoke College is an institution that values excellence in both research and teaching. We seek a candidate with a sustainable research program and an active interest in work with undergraduates on statistical research projects. The successful candidate will also have a demonstrated record of strong teaching at the undergraduate level including experience mentoring students who are broadly diverse with regard to race, ethnicity, socioeconomic status, gender, nationality, sexual orientation, and religion. Candidates from all fields of statistical methodology and areas of application will be considered. Members of the department are active in both research and curriculum development and teach two courses per semester. Mount Holyoke College is a member of the Five College Consortium,

which encourages and facilitates collaboration among its members. Statistics faculty and students across the consortium regularly meet to share research and curricular initiatives.

Electronic submission of application materials through <http://www.mathjobs.org> is strongly preferred. A completed application should include a cover letter addressing your interest in Mount Holyoke College, a CV, and three statements concerning (1) teaching philosophy, (2) research interests, and (3) a statement that addresses experience with or commitment to teaching and mentoring a diverse student body. Applicants should also arrange to have three letters of reference submitted on their behalf. At least one letter should comment specifically on your teaching. Though applications will be accepted until the position is filled, please submit by November 1, 2019 to receive full consideration. For further information about the department go to <http://www.mtholyoke.edu/acad/math/>. For further information you may contact the search chair Margaret Robinson, email: [robinson@mtholyoke.edu](mailto:robinson@mtholyoke.edu).

*Mount Holyoke is an undergraduate liberal arts college for women with 2,200 students and 220 faculty. Over half the faculty are women; one-fourth are persons of color. Mount Holyoke College is located about 90 miles west of Boston in the Connecticut River valley, and is a member of the Five College Consortium consisting of Amherst, Hampshire, Mount Holyoke, and Smith Colleges and the University of Massachusetts.*

### ***Tenure Track Assistant Professorship in Statistics at Middlebury College***

The Middlebury College Department of Mathematics invites applications for a tenure-track Assistant Professorship in Statistics to begin in fall 2020. A PhD in statistics or a closely related field should normally be in hand by time of appointment. Successful candidates will advise, mentor, teach courses at all levels including the first-year seminar program, and contribute to crafting the expansion of our statistics and data science offerings. The potential to collaborate across disciplines and/or incorporate undergraduates in research is desirable. The full position description can be found at <http://www.middlebury.edu/academics/math/faculty-job-opportunities/faculty-job-opportunities>.

Applications should be submitted via Interfolio at <https://apply.interfolio.com/65550>. Full instructions can be found on the website above. Questions about the application process or the position can be directed to Steve Abbott, Mathematics Department Chair, at [abbott@middlebury.edu](mailto:abbott@middlebury.edu).

## *Tenure Track Faculty Position at Bentley University*

### **Job Description Summary**

The Department of Mathematical Sciences at Bentley University – private business-oriented university located in suburban Boston – invites applications for at least one tenure track position beginning Fall 2020. We seek candidates to add to our strengths in applied statistics, applied mathematics, data science and machine learning. Candidates with the ability and willingness to teach in more than one of these areas at both the undergraduate and graduate levels are especially attractive. Applications for both junior and senior positions are welcomed. The rank and salary will be commensurate with experience.

The Mathematical Sciences Department offers undergraduate degrees in mathematical sciences, actuarial sciences, and data analytics and an MS in Business Analytics, and it is involved in the PhD program in Business, both in teaching and in doctoral student supervision. We value collaboration with faculty in other departments and have a particularly strong record of cross-disciplinary scholarship. Candidates are encouraged to learn more about our department by visiting <http://www.bentley.edu/mathematics/>.

### **Minimum Qualifications:**

Applicants must hold a Ph.D. in Statistics, Mathematics, or a closely related discipline. Criteria for selection include: (a) Evidence of excellent teaching ability, and (b) High quality research skills and experience.

Candidates who possess organizational skills to foster and build academic programs consistent with the department's mission, strong communication skills for building research partnerships, and ability and willingness to supervise graduate student research and participate in activities related to our graduate programs are encouraged to apply.

### **Preferred Qualifications:**

Applied experience in academic or nonacademic spheres is highly desirable.

### *Special Instructions to Applicants:*

Candidates should submit a cover letter (candidates should indicate how their research interests and expertise could integrate with the department's mission), current curriculum vita, research statement, teaching statement, and arrange for three letters of recommendation, at least one of which should address teaching. Names and contact information for three references are required upon application. Bentley will contact these confidential references for those candidates moving forward in the process. The review of applications will begin immediately and continue until the position is filled.

Please submit your application here:

[https://bentley.wd1.myworkdayjobs.com/faculty/job/Bentley-Campus/Tenure-Track-Open-Rank--Mathematical-Sciences\\_R0000318](https://bentley.wd1.myworkdayjobs.com/faculty/job/Bentley-Campus/Tenure-Track-Open-Rank--Mathematical-Sciences_R0000318)

Bentley University requires references checks and may conduct other pre-employment screening.

## BCASA REGION STATISTICS SEMINARS

Below is a list of the regional statistics (& mathematics) and biostatistics departments that often offer statistics seminars, along with URLs for each department and its seminars. If your institution would like to appear on this list, please contact Shannon Stock (sstock@holycross.edu).

### **Boston University College of Arts & Sciences**

Department of Mathematics & Statistics

<http://www.bu.edu/stat/>

<http://www.bu.edu/stat/seminar/>

### **Boston University School of Public Health**

Department of Biostatistics

<https://www.bu.edu/sph/about/departments/biostatistics/>

<https://www.bu.edu/sph/about/departments/biostatistics/seminars/>

### **Brown University**

Division of Applied Mathematics

<http://www.dam.brown.edu/>

[http://www.dam.brown.edu/dam\\_seminars.shtml](http://www.dam.brown.edu/dam_seminars.shtml)

### **Brown University School of Public Health**

Department of Biostatistics

<http://www.stat.brown.edu/>

### **Dartmouth College**

Department of Biomedical Data Science

<https://bmds.dartmouth.edu>

### **Harvard University**

Department of Statistics

<http://statistics.fas.harvard.edu/>

<http://statistics.fas.harvard.edu/calendar>

### **Harvard University T. H. Chan School of Public Health**

Department of Biostatistics

<http://www.hsph.harvard.edu/biostatistics/>

<http://www.hsph.harvard.edu/biostatistics/seminars-events/>

### **Massachusetts Institute of Technology**

Institute of Data, Systems, and Science

<http://idss.mit.edu/index.php/event/stochastics-and-statistics-seminar-series/>

**University of Maine**

Department of Mathematics & Statistics  
<http://umaine.edu/mathematics/>  
<https://umaine.edu/mathematics/colloquium/>

**University of Massachusetts Amherst School of Public Health and Health Sciences**

Department of Mathematics and Statistics  
<https://www.math.umass.edu/>  
<https://www.math.umass.edu/seminars/statistics-and-probability-seminar>

**University of Massachusetts Amherst School of Public Health and Health Sciences**

Department of Biostatistics  
<http://www.umass.edu/sphhs/biostatistics>

**University of New Hampshire**

Department of Mathematics & Statistics  
<https://ceps.unh.edu/mathematics-statistics>

**University of Rhode Island**

Department of Computer Science and Statistics  
<http://www.cs.uri.edu/>

**University of Vermont College of Engineering and Mathematical Sciences**

Department of Mathematics & Statistics  
<http://www.uvm.edu/~cems/mathstat/>

**Worcester Polytechnic Institute**

Department of Mathematical Sciences  
<http://www.wpi.edu/academics/math/>

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The BCASA Newsletter is published four times during the academic year and is emailed to current BCASA members. Copies of past newsletters can be found on our website at <https://community.amstat.org/bostonchapter/newsletter>. Send comments or suggestions to any of the individuals listed below.

<b>BCASA OFFICERS</b>	
President, 2019-21	Joseph Blitzstein, Harvard University
Program Chair, 2019-21	Olga Vitek, Northeastern University
Past President, 2019-21	Greta Ljung, Consultant
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Council of Chapters Representative, 2019-2021	Mingfei Li, Bentley University
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Mu Sigma Rho	Liam O'Brien, Colby College
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