BCASA NEWSLETTER

Boston Chapter of the American Statistical Association

Proudly serving

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

Volume 37, No. 1, September 2018

 $\label{eq:homepage:homepage:http://community.amstat.org/bostonchapter/home} \underline{E-Mail: \underline{BostonChapterASA@gmail.com}}$

SCHEDULED EVENTS & MEETINGS			
September 22, 2018	StatFest 2018	Amherst, MA	
September 25, 2018	Undergraduate Teaching Award Lecture	Providence, RI	
October 19, 2018	Short Course: An Introduction to the Analysis of Incomplete Data	Boston, MA	
October 27, 2018	New England Isolated Statisticians Meeting	Wellesley, MA	
November 14, 2018	Evening Lecture at MIT by Harvard Professor Susan Murphy	Cambridge, MA	
January, 2019	Annual Potluck Dinner and Party	TBD	
February, 2019	Mosteller Statistician of the Year Lecture	TBD	

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 incoming Program Chair Olga Vitek at o.vitek@northeastern.edu.

DOMAN Newslaws

Summary Report on 2017-2018 Boston Chapter Activities

As the ASA's second largest chapter with close to 600 members, we continue to be one of ASA's most active chapters. Our 2017-18 program included a mix of dinner presentations, short courses, social events, and other activities. Below is a summary of the program beginning in September of 2017. I want to thank the many volunteers who gave generously of their time to make it all happen. Many thanks are also due to the host institutions that provided space for our meetings.

The kick-off event for the fall term was a September 9 short course on R and RStudio given by Nick Horton at the College of Holy Cross in Worcester. This was followed by a short course on Applied Longitudinal Analysis given by Garrett Fitzmaurice at Boston University on October 13 and a Mini-Conference and Fall Social held at the University of New Hampshire on November 4. The New Hampshire event was cosponsored by the Department of Mathematics & Statistics at UNH and organized locally by Professor Ernst Linder. Our final event for the fall was a December 5 dinner honoring Professor Joe Blitzstein of Harvard University, who was the 2017 winner of the BCASA Outstanding Undergraduate Teaching of Statistics Award.

Our spring term began with a Winter Party and a Potluck Dinner in Carlisle on January 20 with Judy and Tom Lane serving as gracious hosts. This was followed by the Mosteller Statistician of the Year awards banquet held at Harvard Medical School on February 21. The winner of this year's award was Professor Sharon-Lise Normand from the Department of Health Care Policy at the Harvard Medical School. On April 27, the Chapter co-sponsored a Statistics Symposium at Harvard University to celebrate the 95th birthday of Professor Herman Chernoff, who has been an active participant in our chapter. The speakers at this symposium included former students, colleagues, and friends of Professor Chernoff. A brief report on this event is included below. Two other successful events in late spring were our Second Annual Pharmaceutical Symposium held at Takeda Pharmaceuticals in Cambridge on May 4 and an evening event held at Tuft University on May 16. I wish to thank Huyuan Yang at Takeda for helping to organize the Pharma event. The Tufts event was hosted by the Tufts University Student Chapter of the ASA and included the election of five new Boston Chapter officers for 2019. A brief write-up of the interesting program organized by the Tufts students is included in this newsletter.

In addition to collaborating with the Tufts University Student Chapter, we have continued to work with the Boston University Student Chapter of the ASA (BUSCASA). For example, our highly successful short course on Applied Longitudinal Analysis, which was held in the Biostatistics Department at BU, was co-sponsored by the BU Student Chapter. In early May, we also participated in their annual seminar on Statistical Practice which was devoted to Statistical Forecasting this year.

Further details about the 2017–18 program can be found on our website at http://community.amstat.org/bostonchapter/recent-events. Information about upcoming fall events is included in this newsletter and will also be provided on our website. I look forward to seeing you at these events. And thank you all for your interest and your contributions to our chapter.

- Greta Ljung, BCASA President

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Boston Chapter Honors Herman Chernoff on His 95th Birthday

Professor Herman Chernoff, who is well-known to our members, turned 95 years old in July of this year. To commemorate this event, a day-long symposium was held in his honor at Harvard University on April 27, 2018. The symposium was co-sponsored by the Boston Chapter, the Harvard Statistics Department, and the newly formed New England Statistics Society. Professor Chernoff has been a good friend of our chapter over the years and we were delighted to honor him by helping to organize this event.

The symposium featured talks by former students, collaborators, and researchers influenced by his work: Bill DuMouchel (Oracle Health Sciences), Shaw-Hwa Lo (Columbia University), Jay Kadane (Carnegie-Mellon University), Stuart Geman (Brown University), Jake Abernethy (Georgia Institute of Technology), Nancy Reid (University of Toronto), David Siegmund (Stanford University), and Lucas Janson (Harvard University). Herman's daughter, Miriam Chernoff (Harvard School of Public Health), moderated a panel discussion in which Carl Morris (Harvard), Joseph Gastwirth (George Washington University), Roy Welsch (MIT), and Mark Vangel (Massachusetts General Hospital) as well as members of the audience reflected on their interactions with Professor Chernoff. This continued during dinner which lasted well into the night.

Henry Braun, who was a student of Professor Chernoff at Stanford, summarized his career as follows: "Herman's work is characterized by creative use of mathematical and statistical ideas. His work in asymptotics, sequential analysis and stochastic control are all deserving of admiration and accolades. But beyond theory, Herman has been much engaged with real world problems in various domains. Some of the problems have spurred theoretical developments and others practical solutions – those eponymous faces are a lovely example of a wonderfully creative mind at work. From state lotteries to the Kennedy assassination, Herman has applied his gifts to great effect to a wide variety of real-world problems. For more than 20 years now, Herman has collaborated in research on statistical issues in molecular biology and genetics – and I certainly would not venture to guess what's next on his research agenda!! But given his good taste in problem selection, I expect it will be an interesting one."

On the next page are some photos from the event, held at Harvard's Hilles Community Hall and attended by more than 100 people. A video of the presentations may be released at a future date.

Many thanks to our Harvard hosts and to all of you who attended!



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Boston Chapter Releases Report on the 2017 Membership Survey

In May/June of 2017, the Boston Chapter asked the 1,100 ASA members who live in the five states covered by our chapter, Massachusetts, Maine, New Hampshire, Vermont, and Rhode Island, to complete an online survey. The goal was to learn more about our membership, their needs and priorities and how well the Chapter was fulfilling these. Another important goal was to determine why some ASA members in our area have yet to join our Chapter. We received responses from 308 ASA members, for a response rate of 26.5%. Please link to our survey report from the <u>Announcements</u> or <u>Chapter Overview</u> pages on our website to read all of the details. Here are a few of our findings:

- 78% of respondents were from Massachusetts, 5-6% each from Maine, New Hampshire, and Rhode Island, while Vermont and other states made up the remaining 6%. 40% of respondents were female. All age groups were represented: 5% were 18-25 years old, 22% were 26-35 years, 21% were 36-45 years, 19% were 45-55 years, and 33% over 55.
- Chapter members and non-members were similar in terms of level of education (57% doctorate, 34% masters) and work setting (80% work full time; 8% were retired and 9% were full time students; Of those working, 40% were in a post-secondary academic setting).
- About three-fourths of both BCASA members and non-members lived in Massachusetts, with the remainder largely spread across Maine, New Hampshire, Rhode Island, and Vermont. 10% of BCASA members were from outside of our Chapter's catchment area.
- Members from regions outside of the Boston area felt the Chapter could do more to serve them, for example by holding more events in non-Boston locations and improving remote access.
- A recurring theme that came up in several areas of the survey was communication. We found that we need to improve our outreach to ASA members who do not know about the chapter or do not understand the benefits it provides.
- For BCASA members, the most common perceived value of membership was professional networking (70.7%), followed by learning statistical applications (56%) and new methodology (52.2%).
- New event formats need to be considered. Nearly 70% of BCASA members and 50% of non-BCASA members were open to the idea of webinar format.
- In terms of topics, Big Data/Data Science had the most interest (67.3%) followed by Biostatistics/Clinical trials (52.3%) and Health Care/Public Health (50.0%). Statistical Consulting and Statistical Education were also indicated as areas of interest (37.7% and 35.0%). Of note, most topics were of interest to 20% or more of respondents. And when asked top of mind for topics, some respondents had very creative ideas (e.g., Astrostatistics).

Should you have additional thoughts or suggestions in the meantime, please do not hesitate to contact our Membership Committee chaired by Miriam Chernoff (mchernoff@sdac.harvard.edu).

UPCOMING FALL EVENTS

StatFest 2018 to be Held at Amherst College September 22, 2018

Amherst College will be hosting StatFest 2018 on Saturday, September 22, 2018. StatFest is a one-day event aimed at encouraging undergraduate students from under-represented groups to consider graduate studies and careers in the statistical sciences. Ensuring that the statistics profession reflects the diversity of our society is one of the strategic planning goals of the American Statistical Association.

StatFest includes keynote addresses from noted statisticians who describe how statistics and data science are used to extract meaning from data. The program also includes interactive panels on statistics careers in industry, government, and academia, along with a discussion for students on the graduate student experience (facilitated by graduate students who provide unvarnished and helpful advice). Undergraduates can present posters on quantitative or computational research projects or related work. Multiple opportunities are built into the program to allow participants to meet each other, mingle, interact, and network. This conference is an ongoing initiative of the American Statistical Association through its Committee on Minorities in Statistics.

The conference is free but **pre-registration is required by Monday, September 17th**. To register, please go to https://nhorton.people.amherst.edu/statfest/.

For more information please contact StatFest 2018 organizing committee chair Nicholas Horton (nhorton@amherst.edu).

BCASA Award for Outstanding Undergraduate Teaching of Statistics Awards Lecture to be Held on September 25, 2018

Speaker and Awardee: Professor Nick Horton, Amherst College

Presentation Title: Introductory Statistics in a World of Data Science: Where We Are and Where We

Need to Head

Date: Tuesday, September 25, 2018

Time: Presentation: 4:30 PM

Location: Brown University School of Public Health, 121 South Main Street, Providence, RI 02903. Room number will be available as you enter the building. **Directions and Site Map:** Please Google 121 South Main Street, Providence, RI

Parking: There is a parking garage in the building

(<u>https://www.lazparking.com/local/providence-ri/121-south-main-street</u>). There is

various street parking around it as well.

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Note: A reception with a light dinner will follow the presentation.

Cost: \$6 for students; \$12 for non-students; Presentation free

Registration: http://bcasa2018horton.eventbrite.com. Registration requested by September 21.

Abstract:

This is an exciting time for the broader statistics profession, with a flood of data available in myriad domains and an increased focus on the importance of data literacy and data science. There continues to be growth in the number of students taking statistics courses and the development of many innovative data science courses. This talk will survey the landscape of introductory statistics and biostatistics courses in an era of data science, and address questions regarding the role of computation, how to balance the needs of general education students and future statistics and data science students, the role of the statistical analysis cycle, pathways to support student success, faculty development, and the relationships between high school and college preparation. These developments have important implications not just for educators but for practitioners and researchers as well.

Speaker Biography:

Nicholas Horton is Beitzel Professor of Technology and Society and Professor of Statistics at Amherst College. His research involves the development and application of statistical methods with applications in psychiatric epidemiology and substance abuse research. Much of his work in recent years has focused on statistics and data science education. He is a Fellow of the American Statistical Association and the American Association for the Advancement of Science and a recipient of the ASA's Founder's Award for Distinguished Service. He has held numerous leadership positions including Chair of the Committee of Presidents of Statistical Societies and chair of the ASA Curriculum Guidelines for Undergraduate Programs in Statistical Science workgroup. Nick serves on the National Academies Committee for Applied and Theoretical Statistics and is a co-author of the recently published "Undergraduate Data Science: Opportunities and Options" consensus study report.

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An Introduction to the Analysis of Incomplete Data

One-Day Short Course Held at Boston University on Friday, October 19

Instructor: Professor Ofer Harel, University of Connecticut

Organizer: American Statistical Association Council of Chapters

Co-sponsors: Boston Chapter of the ASA (BCASA) and the

BU student Chapter of the ASA (BUSCASA)

Location: Boston University, Sargent College Room 101,

635 Commonwealth Avenue, Boston

Date and Time: October 19, 2018; Sign-in and coffee 8:30-9:00 AM,

Presentation 9:00 AM-4:30 PM

Public transportation and Parking: The closest T-stop on Green Line B is either the BU East station or the Blandford Street station. From here, there is less than a 5-minute walk to the destination. If you prefer to drive, the Granby Street Parking Lot (Lot N) at 665 Commonwealth Avenue is adjacent to BU Sargent College. The rate is \$17/day (Cash Only).

Registration Information: http://bcasa2018IncompleteData.eventbrite.com. Registration requested by October 15.

Cost (including light breakfast, lunch, refreshments, and handouts):

Boston ASA Chapter members: \$70; Non-members: \$85; Students: \$30 (with valid Student ID)

Abstract:

Missing data is a common complication in applied research. Although most practitioners are still ignoring the missing data problem, numerous books and research articles demonstrate that dealing with it correctly is very important. Biased results and inefficient estimates are just some of the risks of incorrectly dealing with incomplete data. In this course, we will introduce incomplete data vocabulary and present problems and solutions to the missing data issue. We will emphasize practical implementation of the proposed strategies including discussion of software to implement procedures for incomplete data. Examples drawn from a variety of application areas will be used for illustration.

About the instructor:

Ofer Harel, Ph.D. is a professor in the Department of Statistics, the Center for Public Health and Health Policy (CPHHP) and a FORMER Principal investigator (PI) at the Institute for Collaboration on Health, Intervention, and Policy (InCHIP) at the University of Connecticut. Through his career, Dr. Harel developed his methodological expertise in the areas of missing data techniques, diagnostic tests, longitudinal studies, Bayesian methods, sampling techniques, mixture models, latent class analysis and statistical consulting. Dr. Harel was part of numerous federal grants as principle investigator (PI), Co-PI and Biostatistician. He is an associate editor for Statistics in Medicine, Sankhya, the Indian Journal of Statistics, Series B and on the editorial board of AIDS and Behavior and The Open Medical Informatics Journal. Through his work, Dr. Harel has been involved with a variety of research fields including, but not limited to single-cell genomics, HIV prevention, Alzheimer's, cancer, diabetes, and alcohol and drug abuse prevention.

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23nd New England Isolated Statisticians Meeting (NEISM23) to be held at Wellesley College on Saturday, October 27

The 23rd New England Isolated Statisticians Meeting (NEISM23) will be held on Saturday, October 27, 2018, from 9:30 AM to 4:30 PM. The meeting will take place at the 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 charge a modest registration fee of \$25 for attending NEISM23, which includes breakfast, lunch, and light refreshments during the day. We firmly believe that NEISM23 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://stonehill.co1.qualtrics.com/jfe/form/SV_bEIjwrkbPUeQ4h7

To register, please go to: https://neism23.eventbrite.com

If you have any questions or comments, please do not hesitate to contact any one on the NEISM23 Organizing Committee.

Wendy Wang – <u>qwang@wellesley.edu</u>
Cassandra Pattanyak - <u>cpattanayak@wellesley.edu</u>
Robert Carver – <u>rcarver@stonehill.edu</u>
Bob Goldman – <u>goldman@simmons.edu</u>
John McKenzie – <u>mckenzie@babson.edu</u>
Michael Salé – <u>msale@stonehill.edu</u>

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November 14 Presentation by Professor Susan Murphy

Title: "Stratified Micro-Randomized Trials with Applications in Mobile Health"

Co-Sponsors: Boston Chapter of the ASA; Department of Mathematics & Statistics at Boston University; and the IDSS Institute at MIT

Date: Wednesday, November 14, 2018

Time: Social and light Dinner 6:15 pm; Presentation 7:00 PM

Location: Room E51-149; MIT Tang Center; 70 Memorial Drive, Cambridge;

Please see http://web.mit.edu/eventguide/cacfacilities/tang.html

Registration: https://bcasa2018nov.eventbrite.com by 10 AM, November 12, 2018

Cost: Dinner \$7 for students; \$12 for non-students. Presentation free



Technological advancements in the field of mobile devices and wearable sensors make it possible to deliver treatments anytime and anywhere to users like you and me. Increasingly the delivery of these treatments is triggered by detections/predictions of vulnerability and receptivity. These observations are likely to have been impacted by prior treatments. Furthermore, the treatments are often designed to have an impact on users over a span of time during which subsequent treatments may be provided. Here, we discuss our work on the design of a mobile health smoking cessation study in which the above two challenges arose. This work involves the use of multiple online data analysis algorithms. Online algorithms are used in the detection, for example, of physiological stress. Other algorithms are used to forecast at each vulnerable time, the remaining number of vulnerable times in the day. These algorithms are then inputs into a randomization algorithm that ensures that each user is randomized to each treatment an appropriate number of times per day. We develop the stratified micro-randomized trial which involves not only the randomization algorithm but a precise statement of the meaning of the treatment effects and the primary scientific hypotheses along with primary analyses and sample size calculations. Considerations of causal inference and potential causal bias incurred by inappropriate data analyses play a large role throughout.

Speaker Biography:

Susan Murphy is Professor of Statistics at Harvard University, Radcliffe Alumnae Professor at the Radcliffe Institute, Harvard University, and Professor of Computer Science at the Harvard John A. Paulson School of Engineering and Applied Sciences. Her current research interests concern clinical trial design and the development of data analytic methods for informing multi-stage decision making in health, particularly in mobile health. She is a 2013 MacArthur Fellow, a member of the National Academy of Sciences and the National Academy of Medicine, both of the US National Academies. She is currently president of the Bernoulli Society and incoming president of the Institute for Mathematical Statistics.

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RECENT STUDENT ACTIVITIES

The Tufts University Student Chapter of the ASA Hosts Boston Chapter Event

Our May 16 chapter meeting was held at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts University and hosted by the Tufts University Student Chapter of the ASA (ASAT). The presentation theme for the evening, "Statistics and Data Science in Nutrition Research", was designed to showcase some innovative education initiatives and some on-going research in the nutrition program at Tufts. In addition, since this was the last Boston Chapter meeting for the year, the election of five new Chapter officers was also held at this meeting.

The program for the evening was organized by the Tufts Student Chapter (ASAT) and included the following presentations:

Tania Alarcon, ASAT President and PhD Candidate in Civil and Environmental Engineering, gave a talk about the *Stats Beyond the Basics* (SBB) initiative which began in 2015 with the goal of creating a dedicated group of experts in data analytics – Statistics Fellows. The SBB initiative has created opportunities for graduate students to be mentors to undergraduate students, instructors in data analysis workshops, and consultants in faculty projects.

Next, **Anastasia Marshak**, **Ryan Simpson**, and **Aishwarya Venkat**, graduate students from the Friedman School of Nutrition Science and Policy and the School of Engineering, gave three lightning talks on *Forecasting famine and infectious outbreaks*. In these speed talks, new approaches and challenges of disease and famine forecasting were presented by way of case studies of recent famine in South Sudan and in timing of flu arrivals, with emphasis on the interdisciplinary collaboration among their projects, and the value of novel data sources, data analytics tools, and data visualization.

Finally, **Elena Naumova**, Professor and Chair of the Division of Nutrition Data Science, Friedman School of Nutrition Science and Policy, gave a talk entitled *Visualizing time-referenced data: the best and the worst.* Dr. Naumova presented general concepts for designing innovative visuals and for avoiding major pitfalls in data visualization. Specific examples were shown on forecasting with time referenced data and on longitudinal studies of growth, and visualization techniques for time in nutrition sciences. Examples were derived from past and ongoing research projects funded by NIH, EPA, and DOD.

The event was very well attended with more than 70 people registered. We thank the speakers and all of you who attended. Very special thanks go to the Tufts Student Chapter ASAT, Tufts Friedman School of Nutrition Science and Policy, and Tufts HNRCA for co-sponsoring and hosting this event.

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May 3 Seminar on Statistical Practice Organized by the BU Student Chapter

Over the last several years, the Boston University Student Chapter of the ASA (BUSCASA) has sponsored an annual seminar on Statistical Practice. The Boston Chapter has been pleased to cosponsor some of these seminars. This year's event was held at Boston University on May 3. The theme was "Statistical Forecasting" and the invited speakers were:

- Alessandro Vespignani, Northeastern University
- Greta Ljung Independent Consultant
- Udit Bhatia, Northeastern University
- Rajita Menon, Boston University

The event was moderated by Professor Jacqueline Hicks from Boston University. The four speakers gave a brief overview of statistical tools used in a variety of applications where forecasts of future observations are needed. Their presentations were followed by a panel discussion and a lively question and answer session, which gave the students an opportunity to ask questions and gain insights into the use of statistics in these application areas. The formal program was followed by a catered meet and greet with the speakers.

Students Compete in the 2018 Five College DataFest

More than 125 undergraduate students from the Five Colleges (Amherst, Hampshire, Mount Holyoke, and Smith Colleges and the University of Massachusetts/Amherst) competed at this year's ASA DataFest event held at UMass Amherst on March 23-25.

Originally founded at UCLA in 2011, the ASA DataFest is now sponsored by the American Statistical Association and hosted by several universities and colleges across the country. Its mission is to expose undergraduate students to challenging questions with immediate real-world significance that can be addressed through data analysis. By working in teams, students with varying skill sets will combine their efforts and expand their collective data analysis horizons. Interaction among students, as well as with outside consultants will promote the sense that data analysis is a dynamic, engaging, and vibrant part of our society, as well as a realistic, practical, and fun career path.

DataFest is a nationally-coordinated undergraduate competition in which teams of up to five students work over a weekend to extract insight from a rich and complex data set. Previous years' data sets have included crime data from the LAPD, dating data from eHarmony, and energy use data from GridPoint. Last year's data was from Expedia and allowed students to show off their data wrangling, visualization, and modeling skills.

At the conclusion of the competition, each team has 5 minutes to make a presentation to a panel of judges. Each panel of judges selected a team for the "Best in Group" prize, and the entire group of

judges determined a "Best in Show" prize. Information about the winners in different categories can be found at http://www.science.smith.edu/datafest/

A participant shared that "It was a great experience, with a fun and interesting challenge. One of my favorite parts is how varied the presentations and projects from each team are. I love learning about ways in which others looked at and analyzed the same problem/ data."

The 2018 Five College DataFest was organized by Ben Baumer and Miles Ott (Smith College). The sponsors included the Boston Chapter of the ASA, DataCamp, Google, Mass Mutual, and RStudio. More information about the Five College DataFest can be found at http://www.science.smith.edu/datafest.

Summary of the 2018 BOW DataFest

The BOW DataFest, which is organized jointly by Babson, Olin, and Wellesley (BOW) colleges, was held at Babson College from Friday, April 6 to Monday, April 9. This was the first time Babson College hosted the event, although another DataFest had taken place two years earlier in the BOW Community. Similar to a typical DataFest, students gathered on Friday and received a large dataset, followed by a data dictionary and a background information supplied by the data provider. The project kick-off was followed by an intense, busy weekend during which the five teams attending the event worked together in the Arthur M. Blank Center for Entrepreneurship to extract insight from the provided data. Throughout the event, a number of volunteer-consultants visited the venue from industry and academia alike, from organizations such as PwC, Harvard University, and Amazon to name a few. The format of this voluntary consulting entailed attending to the questions from student teams, providing feedback, and helping students flush out ideas related to their analyses. The event culminated in the lively and illuminating presentations that took place on Monday evening in the Schlesinger Innovation Center. The presentations were judged by Alex Poon of Wayfair, Sri Krishnamurthy of Quant University, and Eric Ruggieri of College of the Holy Cross.

BOW DataFest was a great success, which brought together students across the three colleges to collaborate on a challenging, real-world project. The event achieved its goals such as promoting statistics and data science; fostering students' data analysis, statistical, and computational skills; providing students a medium for networking among themselves as well as with quantitative professionals from various sectors of industry; and connecting the data science and statistics communities at the three colleges.

AWARDS AND RECOGNITIONS

Steven J. Skates, Associate Professor at the Harvard Medical School and Associate in Biostatistics at the Massachusetts General Hospital, was elected Fellow of the American Statistical Association at the 2018 Joint Statistical Meetings in Vancouver. In addition, several local statisticians received awards from ASA sections of 2018 Joint Statistical Meetings. These include **Luis Campos** from Harvard University and **Xuefei Cao** from Brown University.

Natesh S, Pillai, Professor of Statistics and Director of Graduate Studies at Harvard, is the winner of the International Indian Statistical Association's 2018 Young Statistical Scientist Award in Statistical Theory.

David Schoenfeld, Professor of Medicine at the Harvard Medical School and Professor of Biostatistics at the Harvard T. H. Chan School of Public Health, has been selected as a Fellow of the Institute of Mathematical Statistics. He was recognized for the development of widely used statistical methods and software for the design and analysis of clinical trials, particularly with survival outcomes and biomarkers; and for statistical leadership in clinical research in cancer, HIV, amyotrophic lateral sclerosis, and critical care.

Elena Naumova, Professor and Chair of the Division of Nutrition Data Science at the Friedman School of Nutrition Science and Policy, was awarded the title of Doctor Honoris Causa by Novosibirsk State Technical University in Russia, where she received her master's and doctoral degrees in statistics and applied math. The award is given to distinguished leaders for outstanding contributions to the development of scientific, educational, and cultural collaborations with Russian and foreign partners. Congratulations to Elena!

Richard De Veaux, Professor at Williams College, has been elected Vice President of the American Statistical Association. Dick's research interests include data mining methodology and its applications to problems in science and industry. He is interested in methods such as artificial neural networks and techniques such as decision trees, MARS, and boosting algorithms such as MART.

Mark Glickman, a senior Lecturer at Harvard, has been elected to the American Statistical Association's Board of Directors for the 2018 - 2019 term. He will serve as the Council of Sections Governing Board Representative to the ASA Board.

Susan Murphy, Professor of Statistics and Computer Science at Harvard, received the prestigious R.A. Fisher Award and Lectureship from the Committee of Presidents of Statistical Societies (COPSS). As recipient of this award, she delivered the Fisher Lecture to a large audience at the 2018 Joint Statistical Meetings in Vancouver.

DOMON Newslaws

Constantine Gastonis Receives the 2018 Marvin Zelen Leadership Award

Constantine Gastonis, Henry Ledyard Goddard University Professor of Biostatistics, Professor of Biostatistics, and Director of Statistical Sciences at Brown University is the recipient of the 2018 Marvin Zelen Leadership Award in Statistical Science.

Professor Gastonis is the founding Director of the Center for Statistical Sciences and the founding Chair of the Department of Biostatistics. He is a leading authority on the evaluation of diagnostic and screening tests, and has made major contributions to the development of methods for medical technology assessment and health services and outcomes research. A world leader in methods for applying and synthesizing evidence on diagnostic tests in medicine, he is currently developing methods for Comparative Effectiveness Research related to diagnosis and prediction in radionics.

The Marvin Zelen Leadership Award in Statistical Science is an annual award, supported by colleagues, friends and family, that was established to honor Dr. Marvin Zelen's long and distinguished career as a statistician and his major role in shaping the field of biostatistics.

Amy H. Herring to Receive Lagakos Distinguished Alumni Award

Amy H. Herring will be this year's recipient of the annual Lagakos Distinguished Alumni Award from Harvard Chan School of Public Health. Dr. Herring will accept the award and deliver a lecture this fall.

Dr. Herring graduated from the department in 1999, after she defended her dissertation on "Missing Covariates in Survival Analysis". Her advisor was Dr. Joseph G. Ibrahim. Dr. Herring is currently Professor of Statistical Science and Research Professor of Global Health at Duke University. She has distinguished herself through her widely acclaimed research contributions to public health and biostatistics, and her outstanding record of service to our profession.

Dr. Herring's many achievements include the following:

- More than 225 peer-reviewed publications in top journals, including the *American Journal of Epidemiology, Biometrics, Biostatistics, Epidemiology, Journal of the American Statistical Association, Journal of the Royal Statistical Society, Statistics in Medicine*
- President of the Eastern North American Region of the International Biometrics Society
- Fellow of the American Statistical Association (ASA)
- American Public Health Association's Mortimer Spiegelman Award for outstanding public health statistician under age 40
- ASA Gertrude M. Cox Award for outstanding contributions to applied statistics
- Twice named co-author for best paper of the year in *Biometrics*, from the International Biometric Society
- Co-Director of Duke Forge, Duke's Center for Actionable Health Data Science
- Member of the Committee on Applied and Theoretical Statistics for the National Academy of Sciences

L. Adrienne Cupples Award Presented to Nicholas P. Jewell

The Department of Biostatistics at Boston University presented the L. Adrienne Cupples Award for Excellence in Teaching, Research, and Service in Biostatistics to Nicholas P. Jewell, who is professor of biostatistics and statistics at the University of California Berkeley School of Public Health, on April 5, 2018. Jewell gave a seminar presentation titled "A Statistician's Challenges with Infectious Diseases: From HIV to Dengue" to faculty and students prior to receiving the award.



Jewell holds a Ph.D. in mathematics from the University of Edinburgh. He has taught introductory biostatistics to more than 3,000 students around the world, with notes from his courses resulting in the publication of two major biostatistics textbooks. He has served on the editorial boards of 13 statistical and biostatistical journals, and his methodologic and collaborative peer-reviewed publications have been recognized in his election to the National Academy of Medicine and his elected fellowships in the American Statistical Association, the Institute of Mathematical Statistics, and the American Association for the Advancement of Science.

The annual L. Adrienne Cupples Award for Excellence in Teaching, Research, and Service in Biostatistics recognizes a biostatistician whose academic achievements reflect the contributions to biostatistics exemplified by L. Adrienne Cupples, professor of biostatistics and epidemiology, the award's first recipient.

BOSTON CHAPTER NEWS AND ANNOUNCEMENTS

Spring 2018 Election Results

At the May 16th Chapter meeting at Tufts University, five new BCASA officers were elected for twoor three-year terms starting on January 1, 2019. The newly elected officers are as follows:

- **President:** Dr. Joseph Blitzstein, Professor of the Practice in Statistics and Co-Director of Undergraduate Studies, Department of Statistics at Harvard University
- **Program Chair:** Dr. Olga Vitek, Sy and Laurie Sternberg Interdisciplinary Associate Professor in the College of Science and the College of Computer and Information Science at Northeastern University
- Newsletter Editor: Dr. Elizabeth Kane, Senior Biostatistician at Boston Biomedical Associates (BBA) in Marlborough, MA
- **Webmaster:** Dr. Jeremiah Perez, Research Associate Senior Biostatistician at the Center for Biostatistics in AIDS Research (CBAR) at the Harvard T.H. Chan School of Public Health
- Council of Chapters Representative: Dr. Mingfei Li, Associate Professor and Program Director of MS Business Analytics at Bentley University

We thank them all for their willingness to serve. The next Chapter election will take place in the spring of 2019 when three new officers will be elected: Vice President, Secretary, and Treasurer. Please contact Greta Ljung (greta.ljung@verizon.net) if you are interested in one of these positions or if you wish to nominate someone else.

Nominations for the 2019 Mosteller Statistician of the Year Award

We are currently seeking nominations for our 2019 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, 2018 to Greta Ljung at greta.ljung@verizon.net.

Please include a brief description of the candidate's qualifications for the award. Also, please limit the number of nominations to two candidates. Shortly after the deadline, the members of the Planning Committee will meet to select the winner.

The winner of this award in 2018 was Sharon-Lise Normand from the Harvard Medical School. A complete list of past winners can be found at http://community.amstat.org/bostonchapter/awards/mostellerstatistician.

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Nominations for the Outstanding Undergraduate Statistics Teaching Award

Nominations are now accepted for the 2019 Outstanding Undergraduate Statistics Teaching Award. The criteria for the award are intentionally few and non-specific. The aim is to ultimately acknowledge as wide a variety of statistics education accomplishments as possible. For instance, the winner may have published widely on statistical pedagogy; may have created an exemplary undergraduate program in statistics; may have inspired several generations of undergraduates to pursue careers in statistics, and so on.

The awardee will:

- Be a faculty member at a two-or-four-year college or university in MA, RI, NH, VT, or ME whose primary responsibility is teaching statistics to undergraduates. Those on approved leave during the academic year in which they are nominated qualify if they fulfilled the requirement the previous year.
- Hold membership in the ASA and the BCASA
- Have more than three years of experience in teaching statistics

Further:

• Winners of the BCASA's Mosteller Award will not be eligible for this teaching award. Nominees unsuccessful in one year will be automatically reconsidered in the two succeeding years.

For more information about the award please contact Shannon Stock at sstock@holycross.edu. Nominations forms may be found on the BCASA website at http://community.amstat.org/bostonchapter/awards/teachingaward.

The deadline for nominations for the 2019 award is March 15, 2019

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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...

Completed nomination forms are due to Mu Sigma Rho subcommittee by March 21st.

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 two months 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).

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.

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JOB OPPORTUNITIES

Note: Job opportunities sent to Yan Dong, BCASA Newsletter Editor at <u>yad509@mail.harvard.edu</u> will be included in a future BCASA newsletter.

Biostatistics Faculty, Open Rank, Tufts CTSI and Tufts Medical Center

Tufts Clinical and Translational Science Institute (CTSI) and the Institute for Clinical Research and Health Policy Studies (ICRHPS) at Tufts Medical Center are recruiting for a faculty biostatistician to work in the Biostatistics, Epidemiology, and Research Design (BERD) Center. Statisticians and epidemiologists in the BERD Center collaborate with clinical, health services, and basic science researchers throughout Tufts University and Tufts Medical Center and its affiliates. The BERD promotes innovation and excellence across the spectrum of translational and patient-oriented research. Biostatistics faculty members have roles as Co-Investigators and Principal Investigators on research grants, including innovative methodological research. They also teach and mentor Clinical and Translational Science fellows and provide key resources to the Tufts CTSI-wide community. The candidate will be eligible for a Tufts University faculty appointment.

Responsibilities:

Assists investigators throughout the Tufts community with study design, statistical analyses, and methodological questions related to their research project, both 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.

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 through writing grant applications.

Develops and teaches seminars/workshops geared to fellows and faculty throughout the Tufts community.

Teaches statistics 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.

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.

To apply: please submit your CV and cover letter through Tufts Medical Center's online system at: https://jobs.tuftsmedicalcenter.org/jobs/job-detail.aspx?id=10119471

Middlebury College--Assistant Professorships of Statistics

The Department of Mathematics invites applications for two tenure-track Assistant Professorships in Statistics to begin in fall 2019. 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.

More details on the positions are available at: http://www.middlebury.edu/academics/math/faculty-job-opportunities

Applications should be submitted via Interfolio at https://apply.interfolio.com/52300. Please submit: a letter of application; a teaching statement that includes your vision for statistics education in a liberal arts setting; a description of your research program; curriculum vitae; graduate transcript; and three letters of recommendation, at least two of which speak to teaching ability. At Middlebury, we strive to make our campus a respectful, engaged community that embraces difference, with all the complexity and individuality each person brings. In your application materials please be sure to address how your teaching, scholarship, mentorship and/or community service might support our commitment to diversity and inclusion. Questions about the application process or the position can be directed to Steve Abbott at abbott@middlebury.edu.

Review of applications will begin on October 15 and continue until the positions are filled. Offers of employment are contingent on completion of a background check. Information on our background check policy can be found at http://go.middlebury.edu/backgroundchecks.

DOAGA Navadatta

Lecturer in Statistics, Amherst College

The Department of Mathematics and Statistics invites applications for a full-time position as a lecturer in statistics with the appointment to begin on July 1, 2019. We seek candidates who are passionate about teaching statistics and data science to undergraduates. Today, nearly one-quarter of Amherst's students are Pell Grant recipients; 45 percent of our students identify as domestic students of color. Our expectation is that the successful candidate will excel at teaching and mentoring students who are broadly diverse with regard to race, ethnicity, socioeconomic status, gender, nationality, sexual orientation, and religion.

This is a full-time appointment with an initial three-year term and the possibility of renewal for an additional three-year term as a lecturer, which may be followed by five-year renewable appointments as a senior lecturer. Reappointment and promotion are contingent upon positive reviews of teaching and the other responsibilities of the lecturer, as outlined below. The college provides an annual allocation to support conference travel and/or research.

Responsibilities include teaching five courses per year, carrying out departmental duties, and engaging with the growing statistics program at the college. The successful candidate will be expected to make significant contributions to teaching introductory statistics and potentially other courses in the program, including curriculum enhancements. Applicants must hold at least a master's degree in statistics or biostatistics (or a related field). A Ph.D. is preferred. In addition, applicants must have broad intellectual interests in statistics and data science education, along with demonstrated excellence in teaching.

Submit cover letter, curriculum vitae, teaching statement, and at least three letters of recommendation that specifically address teaching, to MathJobs.Org. Applications will be accepted until the position is filled, but all applications received by December 17, 2018, will be guaranteed consideration. See https://www.amherst.edu/academiclife/dean_faculty/faculty_hiring/employment for details of the position, and

https://www.amherst.edu/academiclife/departments/mathematics-statistics/ for details about the department. Questions can be addressed to mathematics-statistics/ for details about the department. Questions can be addressed to mathematics-statistics/ for details about the department.

Amherst College is a private undergraduate liberal arts college with 1,800 students and more than 200 faculty members. Located in the Connecticut River Valley of western Massachusetts, Amherst participates with Hampshire, Mount Holyoke, and Smith Colleges and the University of Massachusetts in the Five-College Consortium. The Five College Statistics Program (established in 2011) actively fosters connections among the many statisticians and data scientists in the area.

Amherst College is an equal opportunity employer and encourages persons of all genders, persons of color, and persons with disabilities to apply. The college is committed to enriching its educational experience and its culture through the diversity of its faculty, administration, and staff.

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. It your institution would like to appear on this list, please contact John McKenzie (mckenzie@babson.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://sph.bu.edu/Biostatistics/department-of-biostatistics/menu-id-617603.html

https://sph.bu.edu/Biostatistics/seminars/menu-id-617654.html

Brown University Division of Applied Mathematics http://www.dam.brown.edu/

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/

http://umaine.edu/mathematics/colloquium-schedule/

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/~gile/Seminar/

University of Massachusetts Amherst School of Public Health and Health Sciences

Department of Biostatistics

http://www.umass.edu/sphhs/biostatistics

BCASA Newsletter Page 23 of 25 University of New Hampshire
Department of Mathematics & Statistics
http://www.math.unh.edu/
http://www.math.unh.edu/seminars

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/

Worchester Polytechnic Institute
Department of Mathematical Sciences
http://www.wpi.edu/academics/math/
http://www.wpi.edu/academics/math/news.html

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The BCASA Newsletter is published four times during the academic year and is emailed to current BCASA members. Send comments or suggestions to any of the individuals listed below.

BCASA OFFICERS			
President, 2017-18	Greta Ljung, Consultant		
Program Chair, 2017-18	Fotios Kokkotos, Trinity Partners		
Past President, 2017-18	James MacDougall, Consultant		
Vice-President, 2016-19	Miriam Chernoff, Harvard T.H. Chan School of Public Health		
Secretary, 2016-19	Eugenie Coakley, John Snow, Inc.		
Treasurer, 2016-19	Lisa Mukherjee, Consultant		
Council of Chapters Representative, 2016-2018	Mingfei Li, Bentley University		
Webmaster, 2013-18	Ching-Ti Liu, Boston University		
Newsletter Editor, 2016-18	Yan Dong, OPKO Diagnostics		
BCASA COMMITTEE CHAIRPERSONS			
Education Committee	Shannon Stock, College of Holy Cross		
Mu Sigma Rho	Liam O'Brien, Colby College		

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