BCASA NEWSLETTER

Boston Chapter of the American Statistical Association

Proudly serving

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

Volume 36, No. 4, March 2018

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

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SCHEDULED EVENTS & MEETINGS			
March 23, 2018	Analytics Without Borders Conference	Waltham, MA	
April 13-14, 2018	2018 New England Statistics Symposium	Amherst, MA	
April 27, 2018	Symposium in Honor of Herman Chernoff's 95th Birthday	Cambridge, MA	
May 4, 2018	Second Annual Pharmaceutical Symposium	Cambridge, MA	
May 16, 2018	Tufts evening event and BCASA Elections	Boston, MA	

^{*}Events in bolded letters are sponsored by BCASA

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 to members on our email list. We are currently planning events for the coming year. If you have suggestions please contact Program Chair Fotios Kokkotos, fkokkotos@hotmail.com.

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UPCOMING CHAPTER EVENTS

Symposium on Friday, April 27 to Celebrate the 95th Birthday of Herman Chernoff

Professor Herman Chernoff turns 95 years old in July of this year. Herman has been a regular attendee at Chapter events and served as Co-Chair of our Program Committee for two years in the 1990's. We are grateful for his many contributions to our Chapter. His influence as a researcher and teacher is wellknown and extends to areas such as design and sequential analysis, optimization and control, nonparametric methods, large sample theory, and statistical graphics. To celebrate his 95th birthday and acknowledge his many professional contributions, a symposium will be held in his honor at Harvard University on Friday, April 27. The symposium will be co-sponsored by the Harvard Statistics Department, the Boston Chapter of the ASA, and the newly formed New England Statistics Society (NESS). The latter originates from the New England Statistical Symposium championed by Professor Chernoff in 1987. The April symposium will feature speakers who are former students, former collaborators, or researchers influenced by Professor Chernoff's work.

For further details about the program and the event registration, please see the symposium website here.

Second Annual Boston Pharmaceutical Symposium on Friday, May 4

The Boston Chapter of ASA will hold its second annual pharmaceutical symposium in Cambridge on Friday, May 4, 2018. This will be a full-day event hosted by Takeda Pharmaceuticals. Details of the program are provided below:

Date and Time: Friday, May 4, 2018, 9 a.m. to 5 p.m.

Location: Takeda Pharmaceuticals, 35 Landsdowne Street, Cambridge **Registration Fees:** \$160 non-member, \$135 member, \$75 student

Registration Deadline: April 13, 2018

Registration link: https://bcasa2018pharma.eventbrite.com

Program Highlights:

Using prediction to conduct adaptive clinical studies

Dr. L.J. Wei is a professor of Biostatistics at Harvard University. Before joining Harvard, he was a professor at University of Wisconsin, University of Michigan, and George Washington University. His main research interest is in the clinical trial methodology, especially in design, monitoring and

analysis of studies. He has developed numerous novel statistical methods which are utilized in practice. He received the prestigious Wald Medal in 2009 from the American Statistical Association for his contribution to clinical trial methodology. In January 2014, to honor his mentorship, Harvard School of Public Health established a Wei-family scholarship to support students studying biostatistics. His recent research area is concentrated on the personalized medicine under the risk-benefit paradigm via biomarkers and revitalizing clinical trial methodology. Dr. Wei has been closely working with pharmaceutical industry and the regulatory agencies for developing and evaluating new drugs/devices.

Recent Innovation and Development in Joint Models for Longitudinal and Survival Data

Dr. Minghui Chen is currently Professor and Head of the Department of Statistics at the University of Connecticut (UConn). He was elected to Fellow of International Society for Bayesian Analysis in 2016, Fellow of the Institute of Mathematical Statistics in 2007, and Fellow of American Statistical Association in 2005. He has published over 375 statistics and biostatistics methodological and medical research papers in mainstream statistics, biostatistics, and medical journals. He has also published five books including two advanced graduate-level books on Bayesian survival analysis and Monte Carlo methods in Bayesian computation. He served as Program Chair and Publication Officer of SBSS of the American Statistical Association and the ASA Committee on Nomination for 2016-2017 to nominate candidates for ASA President/Vice President. Currently, he serves as an Associate Editor of ASA journals JASA and JCGS and an Editor of Bayesian Analysis and Statistics and Its Interface.

Conjoint Analysis: An Illustrative Primer and Case Study in Rheumatoid Arthritis

Dr. Joseph C. Cappelleri is an executive director of biostatistics in the Statistical Research and Data Science Center at Pfizer Inc. He earned his M.S. in statistics from the City University of New York, Ph.D. in psychometrics from Cornell University, and M.P.H. in epidemiology from Harvard University. As an adjunct professor, Dr. Cappelleri has served on the faculties of Brown University, University of Connecticut, and Tufts Medical Center. He has co-authored over 800 conference presentations and 400 publications on clinical and methodological topics, including on regression-discontinuity designs, meta-analyses, and health measurement scales. Dr. Cappelleri is lead author of the monograph Patient-Reported Outcomes: Measurement, Implementation and Interpretation. He is a Fellow of the American Statistical Association.

Optimal Seamless Phase 2/3 Oncology Trial Designs and Its Implementation

Dr. Guohui Liu is a director at Takeda pharmaceuticals, which he joined after graduation from University of Maryland, Baltimore county in 2006. Currently he is stat lead for a late stage oncology compound development, including study design, regulatory interaction, global submission and payer analyses. Also, he supervises work on a few early stage compounds.

Dr. Zhaoyang Teng is a senior statistician at Takeda Pharmaceutical, with extensive experience in all phases of oncology drug development. Dr. Teng's research interests include adaptive design, seamless phase 2/3 study design, biomarker driven study design and multi-regional clinical trials. He has published multiple statistics journal articles, and chapters in statistics books.

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Design and analysis of pragmatic trials for patient-centered causal inference

Dr. Eleanor Murray, ScD, is a research fellow in the Department of Epidemiology focusing on causal inference methods after her graduation from the Harvard T.H. Chan School of Public Health in 2016 development under the mentorship of Dr. Miguel Hernan and Dr. James Robins. Her research focuses on methods to improve medical decision making, including the design and analysis of pragmatic randomized trials, and the development of agent-based models for causal inference.

A case study of a Bayesian adaptive dose-finding Phase 2 trial design using Go/No-Go criteria and adaptive randomization

Yeting Du is a Biostatistician in the Strategic Consulting Group at Cytel. He completed his MS in Statistics at McGill University in 2012, and his PhD in Biostatistics at Harvard University in 2017. His expertise includes analysis of longitudinal data and correlated data, feature selection, finite mixture models, and statistical methods for genetic association analysis. He has published theoretical and methodological papers in journals including The American Statistician, Metrika, and The Canadian Journal of Statistics. Since Joining Cytel in July 2017, he has worked with clients to create and simulate complex adaptive designs, conducted data analysis for several confirmatory trials, and performed validation of software packages.

New tools for clinical trial design: East and beyond

Charles Liu, PhD, is a Senior Product Manager at Cytel. Before joining Cytel in 2012, he was a postdoctoral fellow at Boston University. His current research interests include: Enrollment & events prediction, Go/No-Go decision making, and Program & Portfolio optimization.

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An evening at Tufts on May 16: Statistics and Data Science in Nutrition Research

Date: Wednesday, May 16, 2018

Time: Reception and Light Dinner: 6:00 p.m., BCASA elections: 6:50, Presentations: 7:00

Location: Tufts University Jean Mayer USDA Human Nutrition Research Center (HNRCA), 711

Washington Street, Boston MA 02111, Mezzanine Conference Room.

Special Note: HNRCA is a federal building and all visitors are required to present ID upon entering. **Public Transportation and Parking:** HRNCA is accessible by MBTA via orange (Tufts Medical Center), silver (SL4/SL4), green (Boylston), and red line (Downtown Crossing). Parking is available in nearby lots (including Tufts Medical Center Parking Garage, 274 Tremont Street, \$26 for up to 2.5 hours, fee subject to change) or metered street parking.

Cost: Light Dinner: \$10 for chapter members; \$12 for non-members; \$5 for students;

Presentation: free.

Registration: https://bcasa2018Tufts.eventbrite.com. Registration requested by May 11.

Organizer: Boston Chapter of the ASA and the Student Chapter of the ASA at Tufts (ASAT) **Note:** The election of new Boston Chapter officers for 2019 will take place at this event.

Program Overview:

Stats Beyond the Basics: Skills for Everyone

Tania Alarcon, ASAT President, PhD Candidate, Civil and Environmental Engineering, Tufts University.

The Stats Beyond the Basics (SBB) initiative began in 2015 with the goal of creating a dedicated group of experts in data analytics - Statistics Fellows. We will describe the SBB initiative and the opportunities we have created for graduate students to be mentors to undergraduate students, instructors in data analysis workshops, and consultants in faculty projects.

Forecasting famine and infectious outbreaks

Anastasia Marshak, Ryan Simpson, Aishwarya Venkat, Graduate Students, Friedman School of Nutrition Science and Policy, Tufts University.

In a series of three lightning talks, we will highlight new approaches and challenges of disease and famine forecasting. We will emphasize the interdisciplinarity of our projects, and the value of novel data sources and data analytics tools in case studies of recent famine in South Sudan and in timing of flu arrivals.

Visualizing time-referenced data: the best and the worst

Elena Naumova, Professor and Chair of the Division of Nutrition Data Science, Friedman School of *Nutrition Science and Policy, Tufts University.*

Dr. Naumova will be speaking on effective approaches for data visualization. She will provide general concepts for designing innovative visuals and for avoiding major pitfalls. She will give specific examples on forecasting with time referenced data and on longitudinal studies of growth, and discuss visualization techniques for time in nutrition sciences. These examples will be derived from the past and ongoing research projects, funded by NIH, EPA, and DOD.

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OTHER LOCAL AND REGIONAL EVENTS

The 3rd Analytics Without Borders Conference to be Held at Bentley **University on March 23**



Time and Location: Friday, March 23, 8:45 a.m. – 4 p.m., Wilder (AAC) Building at Bentley University, Waltham

You are all invited to attend the upcoming 3rd Analytics Without Borders conference. This conference is a forum for researchers and practitioners from different areas of analytics to present and discuss analytics work, whether from corporate institutions, academia, government organizations, etc. All groups will be able to interact and thus build bridges between the different areas of specialization.

Topics are diverse and will include applied statistics, optimization, data science, etc. Anyone who does anything with data is invited to present his or her work. Sessions will include a blend of contributions by corporate, academic and government researchers and practitioners.

The two keynote speakers and their topics are:

- (1) Victor S.Y. Lo, Fidelity Investments: "Data Science, A.I., Business Analytics, Machine Learning, Operations Research, and More - What Are They? How Are They Used in Practice?"
- (2) D. Sculley, Senior Engineer at Google: "Issues in Classification"

Submission due date is Mar 1st, 2018. 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. http://www.bentley.edu/analytics-without-borders.

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2018 New England Statistics Symposium (NESS) to be held at UMass Amherst April 13-14

The 2018 New England Statistics Symposium, which is the 32nd in its history, will be held on April 13–14 at the University of Massachusetts in Amherst. The symposium will be co-hosted by the Department of Mathematics & Statistics and the Department of Biostatistics & Epidemiology.

- Conference dates: Friday, April 13 Saturday, April 14
- Location: University of Massachusetts, Amherst
- Contact:
 - o Nicholas G. Reich, nick@schoolph.umass.edu
 - o Anna Liu, anna@math.umass.edu

The New England Statistics Symposium is an annual conference that moves throughout the region. In odd-years the conference is held at the University of Connecticut. Short courses, break-out groups, poster sessions, and keynote addresses are spread over two days. In recent years there has been a student paper competition and various other sponsored awards.

The theme of NESS 2018 is "Data - Science - Society", reflecting the growing role that data and statistical sciences are playing in shaping and improving society. We invite proposals for invited sessions from the New England statistical community on all aspects of probability, statistics, and data science. We are interested in both methodological developments and innovative applications of statistics. Proposals for invited sessions are due March 5, 2018 at the following website: symposium.nestat.org/SessionProposalform.php.

We also invite submissions from student authors for the IBM Student Paper Competition and the MassMutual Student Poster Competition. Abstract submissions for the student paper and poster competitions are due March 26, 2018:

symposium.nestat.org/call-for-participation.html

Additionally, a set of short courses will be offered on Friday, April 13th, on a range of topics including Bayesian modeling using Stan (taught by Stan core developers) and causal inference. symposium.nestat.org/short-courses.html.

For further information about the 2018 program, please see http s://symposium.nestat.org/index.html

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May Institute on Computation and Statistics for Mass Spectrometry and Proteomics

Dates and Location: April 30–May 11, 2018, Northeastern University, Boston MA

Organizers: Meena Choi, Brendan MacLean, and Olga Vitek

Apply at: https://computationalproteomics.ccis.northeastern.edu/. The application deadline was January 31, 2018. However, applications will continue to be accepted until all spaces are filled.

The May Institute focuses on computational and statistical aspects of quantitative mass spectrometry-based proteomics. The course combines keynote presentations, introductory lectures, practical training, and informal personal discussions.

Instructors of the course are leading experts in this field, who contributed numerous experimental and computational methods and software. The target audience are both beginners and experienced scientists, who would like to strengthen their computational and statistical expertise. We also welcome computer scientists, bioinformaticians, data scientists, statisticians and engineers interested in learning about working with data from modern biotechnologies. The participants will have many opportunities to ask questions, and will be able to present their research.

Program Overview:

April 30 – May 2, 2018: Targeted proteomics with Skyline Speakers: Sue Abbatiello, Andy Hoofnagle, Brendan MacLean, Lindsay Pino

April 30 – May 2, 2018 : Proteomics and metabolomics with OpenMS Speakers: Oliver Kohlbacher and OpenMS team

May 2-4, 2018 : Beginner's statistics in R

Speakers: Meena Choi, Laurent Gatto, Olga Vitek

May 2-4, 2018 : Advanced R

Speakers: JJ Allaire, Kylie Bemis, Tsung-Heng Tsai

May 7-9, 2018: Statistics for quantitative mass spectrometry

Speakers: Meena Choi, Olga Vitek

May 7-9, 2018: Visualization of biomolecular data

Speakers: Michelle Borkin, Steven Braun, Laurent Gatto, Nils Gehlenborg

May 9-11, 2018 : Capstone – case studies in data-independent acquisition (DIA) Speakers: Ruedi Aebersold, Meena Choi, Ben Collins, Mike MacCoss, Brendan MacLean

This program is supported by the 1R25EB023929-01 award from the National Institutes of Health, and by German Network for Bioinformatics Infrastructure.

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Recurring Statistics and Big Data Meetups Around Boston

Contributed by Jan Galkowski

There are periodic meetings, typically monthly, of Web-mediated birds-of-a-feather interest groups called *Meetups*. Of interest to readers of the Boston Chapter newsletter are several concerning uses of data and algorithms, particularly related to Bayesian statistics, data science, and machine learning. I attend meetings of two such groups: the *Boston Bayesians*, and *The Data Scientist*.

The *Boston Bayesians* meetup presentations tend to be less technical and appeal to practitioners in companies and startups who might not identify themselves as statisticians or have statistics as their main subject. That is typical of these technical meetups, for they emphasize networking and banter. However, the speakers are often challenged by audience members in highly technical ways.

A recent meeting of this group featured a presentation by Eric Ma, who attempted to <u>demystify</u> Bayesian deep learning. A review of deep learning is a column unto itself. But <u>Shakir</u>, and <u>Polson and Sokolov</u> identify strong technical connections between this topic and more traditional statistical methods, particularly those in a Bayesian hierarchical framework. In fact, Shakir goes as far as to suggest that recursive neural networks are hierarchically arranged generalized linear models.

The Data Scientist recently offered a talk by Gretchen Greene, who took up the problem of generating training data for machine learning from regression on a limited data set produced by experts. The problem has been appreciated at least since 1995 with the work of Ventura, Andersen, and Martinez applying genetic algorithms. Greene's domain is animation and decorative patterns, and her microworld is training a machine learner to properly color sketched dragons, otherwise black lines on white. While an animator can draw a few examples, such machine learners typically need thousands of examples. In Greene's case, she exploits the theory of affine transformations to generate multiple copies of a manually drawn template, preserving colors of connected components if closed colored regions are considered components. Such generations are then training candidates.

My general impression is that these meetings provide rich opportunities for young statisticians and others to seek out interesting problems and develop new professional associations. Often, the principals and leaders of startups and other companies are strong in their fields, whether these involve big data, their business plans, or their markets. But since many of the problems they face are complex, they often miss or misunderstand the statistical assumptions made in their choice of data or tools. Statisticians as a group can help, and can, in turn, benefit from collaborating with these professionals. If you are interested in more information, please feel free to contact Jan Galkowski at bayesianlogic.1@gmail.com.

Information about a recent February event can be found at https://www.meetup.com/Boston-Bayesians/events/247360932/. The Meetups are free of charge, but they are often oversubscribed. So please sign up early if you wish to attend.

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UPCOMING NATIONAL CONFERENCES

2018 Symposium on Data Science and Statistics **Beyond Big Data: Leading the Way**

The 2018 Symposium on Data Science and Statistics (SDSS) will be held on May 16-18 in Reston, VA. The symposium will honor Ed Wegman, who has done seminal work in many areas within the interface of statistics and computing science—as well as data visualization—and has been a driving force in creating the SDSS and its predecessors.

SDSS is a continuation of the Symposium on the Interface of Computing Science and Statistics ("The Interface"). In 1967, a partnership between the Southern California Chapter of the American Statistical Association (ASA) and the Association for Computing Machinery (ACM) culminated in the first of 45 Interface symposia.

The previous symposia brought together computer scientists, statisticians, and mathematicians in addition to both established leaders and rising stars in transdisciplinary research. Illustrious keynote speakers have included Grace Wahba, John Tukey, John Nash, Sir David Cox, Bradley Efron, and Bill Cleveland, while the rich history and quality of the symposia are in large part due to the contributions of past program chairs such as Lynne Billard, David Scott, and Ed Wegman.

The new annual SDSS combines data science and statistical machine learning with the Interface Foundation of North America's (IFNA's) historical strengths in computational statistics, computing science, and data visualization. It stands on the shoulders of the above-mentioned giants and many others, and will continue the tradition of excellence by providing an opportunity for researchers and practitioners to share knowledge and establish new collaborations. SDSS is a partnership of the IFNA and ASA. IFNA is responsible for the program, and the ASA is responsible for operations.

Ed Wegman was a driving force behind early Interface symposia, spearheaded efforts to establish IFNA in 1987—which assumed responsibility for planning the symposia and publishing the proceedings and drove the new partnership and expansion.

For further information about the 2018 conference, please see http://ww2.amstat.org/meetings/sdss/2018/

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2018 Joint Statistical Meetings to be Held in Vancouver, Canada, July 28 – August 2

This year's JSM meetings will be held in Vancouver, British Columbia, Canada, from July 28 – August 2, 2018. The theme for JSM2018 is #LeadWithStatistics.

With more than 6,500 attendees from 52 countries, JSM is one of the largest statistical events in the world. The program consists of invited, topic-contributed, and contributed sessions; introductory overview lectures; late-breaking sessions; poster presentations; roundtable discussions; professional development courses and workshops; and numerous other meetings and activities. Presentation topics range from statistical applications to methodology and theory to the expanding boundaries of statistics, such as analytics and data science.

JSM also offers a unique opportunity for statisticians in academia, industry, and government to exchange ideas and explore opportunities for collaboration. Beginning statisticians, including current students, are able to learn from and interact with senior members of the profession. An orientation and reception for first-time attendees will be held 12:30 p.m.-2:00 p.m. on Sunday, July 29.

The deadlines for abstract submissions have passed. However, proposals for Late Breaking Sessions are accepted until April 16. More information about JSM2018 can be found at http://ww2.amstat.org/meetings/jsm/2018/

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MEMBER NEWS

Scott Evans Becomes Director of the Biostatistics Center at **George Washington University**

Scott Evans has accepted an offer from George Washington University to become Director of their Biostatistics Center and Professor in their School of Public Health's Department of Epidemiology and Biostatistics.

Scott is very well-known to the statistics community in the Boston area. He was the Boston Chapter Mosteller Statistician of the Year in 2015, served as BCASA President from 2003 to 2006, and is a Fellow of the ASA. He has continued to be active on the BCASA Planning Committee and has organized some of our most successful events in recent years.

Scott has also done excellent service at the national level. He is the Past-Chair of the Development Committee of ASA, the Past-Chair of the Teaching Statistics in the Health Sciences section of ASA, and the Past-Chair of the Statistics in Sports section of ASA. He is a member of the Board of Directors for the American Statistical Association (ASA) and the Society for Clinical Trials (SCT) and is a former member of the Board for Mu Sigma Rho (the National Honorary Society for Statistics). He is a member of an FDA Advisory Committee, the Steering Committee of the Clinical Trials Transformation Initiative (CTTI), and serves as the Chair of the Trial of the Year Committee of the SCT. He is the Editor-in-Chief of CHANCE magazine and Statistical Communications in Infectious Diseases (SCID) and the Co-Editor of Innovation in Design, Education, and Analysis (IDEA), a Section of Clinical Infectious Diseases.

For the past several years, Scott has been Director of the Statistical and Data Management Center (SDMC) for the Antibacterial Resistance Leadership Group (ARLG) and a member of the Steering Committee for the Center for Biostatistics in AIDS Research (CBAR) at Harvard Chan School of Public Health. His interests include the design, monitoring, analyses, and reporting of and education in clinical trials. He is the author of more than 100 peer-reviewed publications and three textbooks on clinical trials including Fundamentals for New Clinical Trialists.

The Biostatistics Center at George Washington University that Scott will be directing serves as coordinating center for large scale multi-center clinical trials and epidemiologic studies. Established in 1972, the Center participates in major medical research programs of national and international scope, frequently leading to major medical advances. Most of the over 65 major research projects undertaken by the Center have been under the auspices of National Institutes of Health (NIH) and other Federal agencies. The Center is staffed by over 100 employees including many master's and doctoral level statisticians and computer systems analysts. The staff has extensive experience and expertise in biostatistics, epidemiology, clinical trial study design and data management, and administration and coordination of multi-center research studies.

Congratulations and best wishes to Scott!

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Xiao-Li Meng of Harvard University is Selected President-Elect of IMS

The Institute of Mathematical Statistics has selected Professor Xiao-Li Meng as their President-Elect (weblink http://bulletin.imstat.org/2017/07/ims-election-results/). As President-Elect, he joins the IMS Council for a three-year term starting in August 2018. Professor Meng is Harvard's Whipple V. N. Jones Professor of Statistics and Dean of the Graduate School of Arts and Sciences. He is well-known to the Boston Chapter and we extend him our congratulations!

Nick Horton and Eric Kolaczyk Recognized as 2017 AAAS Fellows

At its 2018 annual meeting in Austin, Texas, the American Association for the Advancement of Science (AAAS) awarded the distinction of Fellow to two active members of the Boston Chapter of the ASA. Amherst College Professor Nick Horton and Boston University Professor Eric Kolaczyk were acknowledged for their contributions to science and technology, scientific leadership and extraordinary achievements across disciplines by the AAAS Section on Statistics.

Dominique Haughton Pursues Music Degree at Lowell

Dominique Haughton, Professor of Mathematical Sciences at Bentley University and former BCASA President, has returned to University of Massachusetts at Lowell to pursue a degree in music. Once a Professor of Mathematics at Lowell, she is now an undergraduate there, studying sound recording technology and honing her skills on piano, an instrument she has long adored. Her piano instructor is Jacob Hiser of Somerville. We wish Dominique good luck and look forward to hearing her perform at one of our social events in the near future. In the meantime, a sample of her work can be found at http://www.lowellsun.com/local/ci_31646443/after-30-year-hiatus-math-professor-returns-uml.

DOACA Navalettes

In Memoriam: Dr. Robert B. Smith, Former BCASA President

The members of the Boston Chapter of the ASA and the Planning Committee were deeply saddened to learn about the passing of our dear friend and colleague Bob Smith on August 29, 2017. Bob made numerous contributions to the Boston Chapter and he is greatly missed.

Bob was born in Grand Rapids, Michigan and raised in Chicago. He earned a doctorate in sociology at Columbia University. Then, for nearly a decade, he taught political sociology and research methods at the University of California, Santa Barbara, taking one year off to teach as a Senior Fulbright-Hays Lecturer at the State University of Ghent, Belgium. He treasured the lasting friendships he formed with members of the Ghent Jewish community and strived to reinvigorate those friendships by occasionally revisiting them.



Always open to new ideas and acquiring news skills, he worked in applied research after leaving Santa Barbara, chiefly at Aetna Health Plans in Middletown, CT, and Liberty Mutual Insurance Group in Weston, MA. Later, he enjoyed work at Cytel Statistical Software and Services, Cambridge, MA, and the University of Cambridge-MIT Institute, Massachusetts Institute of Technology.

Bob was an avid reader and dedicated researcher. He edited *A Handbook of Social Science Methods* (in three volumes) and wrote three books (including *Multilevel Modeling of Social Problems, Springer 2011*, and *Social Structure and Voting in the United States, Springer 2016*), and dozens of articles. He also enjoyed his affiliation with the Boston Chapter of the ASA and served as its president for two years, from 2001-2002. He took great interest in our programs and attended numerous lectures, short courses, and other events over the years.

Above all, Bob loved life. He derived great joy from his grandsons, children, and friends, and from music, art, travel, and swimming. He treated family and friends with wit, humor, joy, and optimism, and to the end he treated others with kindness and generosity. For six years, he determinedly fought the heart failure that finally took his life.

Bob is survived by his wife of 33 years, Joanna (Flug Handlin) Smith, a daughter and her family residing in Cambridge, MA, a son and his family residing in New York, NY, and a sister and her husband residing in Milwaukee, WI.

Bob's wife Joanna wishes to thank everyone for the flowers and the many cards that she received from members of the Boston Chapter. She also wishes to thank all those who attended the Memorial Service held in Lexington on November 5 to celebrate Bob's life.

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OTHER NEWS AND ANNOUNCEMENTS

2018 ASA Five College DataFest to be Held at UMass Amherst, March 23-25

DataFest is a nationally-coordinated undergraduate competition in which teams of up to 5 students work over a weekend to extract insight from a rich and complex data set. The mission of DataFest 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. Last year's DataFest held at Smith College attracted about 160 students.

DataFest was founded at UCLA in 2011, when 30 students gathered for 48 intense hours to analyze five years of arrest records provided by the Los Angeles Police Department. The 2013 data consisted of several million potential romantic pairings provided by e-Harmony. Students were asked to find qualities that predict or characterize successful matches. Last year's data was from Expedia and allowed students to show off their data wrangling, visualization, and modeling skills. The data for this year will be revealed when the event begins.

At the conclusion of the competition, each team will have 6 minutes to make a presentation to our panel of judges. In addition to a "Best in Show" prize, we will give a prize for best visualization and also for best use of external data. This year's DataFest -- now under sponsorship from the ASA -- will coincide with analogous events taking place at UCLA and Duke University (among others) bringing the flair of a national competition to the event, and pitting Five College students against their counterparts at elite research universities. Students from the Five Colleges (Amherst, Hampshire, Mount Holyoke, and Smith Colleges, as well as the University of Massachusetts-Amherst) will have an opportunity to compete.

Critical to the success of DataFest are VIP Consultants -- statisticians, data scientists, quantitative analysts, and other data professionals who visit to chat and give advice to the students. These visitors wander the room and offer advice and encouragement to the teams. The students find these experiences highly enriching, and the consultants find the encounters to be quite fun. In the past, many consultants have made a commitment to stay for one or two hours, but then stayed much longer because they were having such a good time. Consultants have also found this to be a very useful recruiting tool. Members of the BCASA or their colleagues would make terrific consultants and are strongly encouraged to consider attending. Please contact Ben Baumer (bbaumer@smith.edu) or Amelia McNamara (amcnamara@smith.edu) if you would like to be a consultant.

Further information about the Five College DataFest can be found at http://www.science.smith.edu/datafest/

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2018 ASA BOW DataFest to be Held at Babson, April 6-8

Babson, Olin, and Wellesley (BOW) colleges are jointly planning their 2018 American Statistical Association DataFest, to be held at Babson College during the first weekend of April (April 6-8). This is the second time that the consortium is organizing an ASA DataFest. The first BOW Datafest was successfully run in April of 2015. The registration for this event ends on March 9. Further details can be found at:

 $\frac{https://docs.google.com/forms/d/e/1FA IpQLSeq1AX ImX9F_I8O IpEzW0DsT9bBcPyUnj6HpV2aLRkLIHED4A/viewform}{m}$

StatFest 2018 Calls for Institutional Liaisons

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 that motivate how statistics and data science are being 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.

The free conference is an ongoing initiative of the American Statistical Association through its Committee on Minorities in Statistics.

At this point in time the organizing committee is looking to identify institutional liaisons at colleges and university in the New England and Mid-Atlantic regions who would help to register and bring students from their institution.

Can you please fill out the short survey at https://goo.gl/forms/LamUKFuhtHHfbuPR2 (or http://tinyurl.com/statfestcontact) with your contact information?

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

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Some New Data Analytics Initiatives at Tufts

Contributed by Elena Naumova, Tufts University

The increasing availability of new data in disciplines related to food, nutrition, agriculture, and the environment are profoundly transforming research and practice in these disciplines. Contributing to this are new advances in math, statistics, and computer science that enable data-driven discovery through data exploration, data mining, and machine learning. For nutrition-related sciences, these advances provide useful tools for solving complex global problems related to food availability and future nutritional needs. However, to take full advantage of these developments, we need a skilled workforce with appropriate training including strong quantitative skills.

Five years ago, Dr. Elena Naumova and her team at Tufts University introduced a transformative learning approach to graduate education by involving students in <u>sol</u>ution-oriented, <u>s</u>tudent-led, <u>t</u>eam-based, <u>c</u>omputationally-enriched (SOLSTICE) training. This approach combines team-based problem-solving training and guided peer-mentoring in student-led projects to produce computationally-enriched research results. The approach was initially developed for the Environmental Informatics (EI) course offered in the graduate program of the School of Engineering and then was adapted for the Advanced Data Analytics (ADA) course. In 2016, the course was cross-registered in both the School of Engineering and the Friedman School of Nutrition and received high scores by the standard formal evaluation implemented by both schools.

The newly formed graduate program in Nutritional Data Science at Tufts, which is expected to enroll students in Fall 2018, aims to expand the existing Nutritional Epidemiology Program to train students in the design, implementation, and analysis of epidemiologic studies that address questions related to dietary intake, behavior, genetics, and the role of nutrition in disease prevention. The emphasis on data analytics within the program aims to attract students with strong interests in statistics and quantitative methods. Moreover, this program will support data-intensive quantitative approaches across the curriculum in all other graduate programs at Tufts.

Since the introduction of the SOLSTICE approach, there has been an increase in the number of publications produced by students and their degree of satisfaction. As an example, in 2015, of the 15 graduate students enrolled in the EI/ADA course, 5 of them published their work in well-ranked journals. The most successful students had the opportunity to participate in field studies conducted in three developing countries: India, Haiti, and Ghana. This work was funded by an interdisciplinary research grant from the Tufts Institute for Innovation (http://now.tufts.edu/articles/discovery-impact) launched in 2014. The field-based project produced rich data sets for student-led presentations and publications. The project supported 8 undergraduate, 2 masters, and 4 doctoral students, helping them learn new data analytic skills and moving their theses forward.

The SOLSTICE approach was further strengthened by a Tufts Innovates seed grant, "Stats Beyond the Basics: Skills for Everyone." This grant supported informal weekly workshops on research methodology and advanced statistical tools which enhanced the research skills of the students. It also provided a supportive environment to apply these skills to tangible, real-world problems. Their work was also guided by a group of Statistics Fellows with extensive statistical experience who advised the students on data collection and statistical modeling, research publication, and conference presentations.

In 2016, the students established the Tufts Student Chapter of American Statistical Association. The mission of the student chapter is to promote statistical research and practice across multiple disciplines at Tufts University. The specific aims are to: (1) facilitate connections between faculty and students

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interested in statistics and data science; (2) foster a sense of community among students from across the university; (3) and connect students with a larger community of statisticians serving in industry, government, and academia. The formation of the student chapter was spearheaded by doctoral candidate Tania Alarcon, who also serves as Chapter President.

These ongoing projects are part of a University-wide effort to improve data-related and quantitative skills for STEM (Science Technology Engineering Math) students. The success of the University-funded *Stats Beyond the Basics* project is evidenced by numerous publications co-authored by students, faster publication times of student research, and enhanced channeling of undergraduate students into STEM disciplines. The successful implementation of the SOLSTICE approach has also been encouraging. Moving forward, a systematic evaluation will be conducted to assess the extent to which these and other initiatives improve learning and can be scaled to other graduate programs.

About the Friedman School of Nutrition Science and Policy

The Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy at Tufts University is the only graduate school of nutrition in the United States. The school's eight degree programs – which focus on questions relating to nutrition and chronic diseases, molecular nutrition, agriculture and sustainability, food security, humanitarian assistance, public health nutrition, and food policy and economics – are renowned for the application of scientific research to national and international policy.

Dr. Elena Naumova is the Chair of the Division of Nutrition Data Science, as well as a Professor at the Friedman School. Her research activities span a broad range of research programs in emerging and re-emerging diseases, environmental epidemiology, molecular biology, nutrition, and growth.

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BOSTON CHAPTER ANNOUNCEMENTS

Upcoming Chapter Elections

In May 2018, we will be electing five new chapter officers. These officers are: President, Program Chair, Newsletter Editor, Webmaster, and Council of Chapters Representative. The first four positions are for two-year terms starting on January 1, 2019. The Council of Chapters Representative is for a three-year term, also starting on January 1, 2019. We welcome nominations. For more information on officer responsibilities please see http://community.amstat.org/bostonchapter/aboutus/officers. Below is a brief summary of the responsibilities:

- President Oversees chapter activities; works to ensure an active program of lectures, short courses and other events; handles committee appointments; serves as chief spokesperson for the chapter
- Program Chair Chairs the Program Committee; suggests meeting topics and develops the event schedule with input from the President and Planning Committee; coordinates volunteers to organize each event; prepares event information for publicity
- Newsletter editor Chairs Newsletter Committee; ensures publication in a timely manner; solicits and sends reminders for contributions; does the final editing of the newsletter
- Webmaster Maintains and updates the BCASA website
- Council of Chapter Representative Serves as the communications link between the Chapter, the Council of Chapters and ASA as a whole. Completes and returns the annual chapter report to the Council of Chapters

If you are interested in volunteering for one of these positions, please contact Miriam Chernoff (mchernoff@sdac.harvard.edu), Greta Ljung (greta.ljung@verizon.net), Tom Lane (tlane@alum.mit.edu), or any of our other officers by April 15. Also, please let us know if you wish to nominate someone else for one of these positions. The success of our chapter depends on volunteers and your help is much needed. So please consider volunteering for one of these positions.

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Some Highlights from the 2017 BCASA Membership Survey

The Boston Chapter of the ASA (BCASA) proudly serves statisticians in five New England states: Massachusetts, Maine, New Hampshire, Vermont, and Rhode Island. The chapter was established about ninety years ago, with Carroll W. Doten from MIT serving as its first president from 1928 to 1929. It is one of the oldest chapters within the ASA. And with a current membership of 600, it is the second largest chapter within the ASA, surpassed only by the Washington Statistical Society (WSS). However, there is potential for additional growth, since there are many ASA members in our region that do not yet belong to the Chapter.

In May of 2017, in order to improve our services and add value to our members, the Boston Chapter surveyed 1,164 participants. Eligibility included either ASA or BCASA membership. Non-BCASA members were selected if they lived in one of the five states served by our chapter. A total of 308 surveys (response rate of 26.5%) were received.

Several valuable insights were gleaned. One addressable issue was communication. The most frequent reason given for not joining the chapter was not knowing that there was a chapter. The second reason for not ioining was that the benefit of membership was unclear. These two issues are ultimately addressable with outreach and public relation efforts. The survey deployment itself and an invitation to join the chapter recently sent out to ASA members who reside in our geographic area but had not yet joined the chapter has resulted in an increase from 558 to 600 members (7.5% increase)

Current BCASA members felt that there is a definite value in belonging to the chapter. The most commonly perceived value was professional networking (70.7% of 184 responses given), followed by learning statistical applications (56%) and new methodology (52.2%). Thus, in addition to continuing education activities, it will be important to consider networking opportunities when planning future events.

Big Data/Data Science had the most interest for future event topics (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%). A number of creative special topics were also suggested.

A more extensive report on the survey results is in preparation and will be posted to the chapter website in the near future. The chapter is very appreciative of the thoughtful responses that were received and will be using the information to develop future events and outreach.

Some improvements implemented this past year include the introduction of a new website, more timely release of our quarterly newsletter, and a wider distribution of event announcements. Outreach activities have also been undertaken during the year.

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Nominations for the 2017-18 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-year 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 reconsidered automatically the following year.

For more information about the award contact Professor 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 2017-18 has been extended to March 31, 2018.

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 to recognize outstanding achievements of 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. Please note that the deadline for completing this year's nominations had been extended to March 21.

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

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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 events. The meetings are held in the evening and dinner is provided. For more information contact Chapter President Greta Ljung, greta.ljung@verizon.net.

Benefits of BCASA Membership

Membership in the Boston Chapter of the ASA has many benefits including the following:

- Receive notification of our quarterly newsletter and upcoming chapter events
- Meet new colleagues and network with others in the field
- Participate in chapter sponsored events at discounted member rates
- Continue your statistical education and advance your career
- Support and enrich the local statistics community
- Support ASA's grassroots efforts and help develop the next generation of statisticians

Unless already a member, please consider joining now. 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.

You can also 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 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 yad509@mail.harvard.edu will be included in a future BCASA newsletter. Please email your job posts in a Word attachment with "BCASA newsletter job post" in the subject line.

Quantitative Methods and Digital Learning Position at Harvard Kennedy School

The Harvard Kennedy School seeks candidates for a three-year lecturer position focusing on Quantitative Methods and Digital Learning. Responsibilities for this position include classroom teaching, the development of separate on-line modules for teaching degree program students, and developing methods for using digital tools for more effective classroom instruction. Preference will be given to candidates who combine technical expertise in quantitative methods with prior experience in curriculum development and on-line instruction. Information on this and other positions is available here:

https://www.hks.harvard.edu/more/about-us/leadership-administration/academic-deans-office/faculty-recruitment

The mission of Harvard Kennedy School is to train enlightened public leaders and generate the ideas that provide solutions to the world's most challenging public problems. The school serves about 900 degree program students and about 3800 executive program participants each year. Applicants must be willing and able to successfully teach in two-year degree programs and our other teaching programs. The ability to convey conceptual as well as practical knowledge and commitment to the public service mission of Harvard Kennedy School are crucial.

Please submit application materials, including a cover letter, CV, relevant publications (if any), list of references and evidence of teaching potential to http://academicpositions.harvard.edu/postings/8096. Applications will be accepted beginning immediately and until the position is filled.

Assistant Professor Positions in Applied Statistics or Data Analytics at Husson University in Bangor Maine

Husson University has two faculty positions in Applied Statistics or Data Analytics at the level of Assistant Professor. Teaching responsibilities include 12 credit hours per semester and research design courses at the general education level, data analytics courses, as well as upper level statistics courses to be taught at the Bangor campus and selected courses at an online platform. Apply here: www.Click2Apply.net/k944c9wrptt2s7p2.

DOACA Navaletta

Postdoctoral Fellowship or Research Scientist Position in Biostatistics Geisel School of Medicine at Dartmouth

A postdoctoral fellow or research scientist is sought to conduct innovative research to implement estimation of complex statistical models in challenging situations. The two-year position is funded by a five-year grant from the Agency for Health Care Research and Quality that supports methodological and applied research. The successful candidate will be appointed in The Dartmouth Institute for Health Policy and Clinical Practice and will work under the mentorship of Dr. James O'Malley and collaborate with experts in a variety of fields including Medicine, Health Policy, Medical Sociology, and Health Economics.

Applicants should have a doctoral degree in biostatistics, statistics or a related field and be interested in performing innovative statistical research to allow cutting-edge solutions to be obtained to important applied problems. Areas of particular relevance include hierarchical/multi-level modeling, complex survey design, and social network analysis. A background in one of these areas would be helpful but not imperative.

Submissions should include a letter of intent, curriculum vitae, and names and contact information for three references. Review of applications will commence immediately and will continue until the position is filled.

Applicant materials should be e-mailed or mailed to:

Attention: Joel R. King (Post-doctoral fellowship search)
The Dartmouth Institute for Health Policy and Clinical Practice
Geisel School of Medicine at Dartmouth
Level 5, Williamson Translation Science Building
1 Medical Center Drive, Lebanon NH 03756, USA
Email: Joel.R.King@Dartmouth.edu

Please contact James O'Malley at James. OMalley@Dartmouth.edu with questions about the position.

Salary Range: Competitive; Benefits: Excellent

Founded in 1797, the Geisel School of Medicine at Dartmouth draws on the resources of Dartmouth College and Dartmouth-Hitchcock Medical Center for broad interdisciplinary programs in biomedical research, education, patient care and service. Located in rural New Hampshire, the region uniquely offers idyllic landscapes and recreation, along with outstanding schools and cultural activities. The Dartmouth Institute is world renowned for its research in the variation of health care utilization and outcomes. For more information on the Dartmouth Institute for Health Policy and Clinical Practice: http://tdi.dartmouth.edu/

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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 Greta Ljung at greta.ljung@verizon.net.

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/

Mass achusetts 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/colloquium-schedule/

University of Massachusetts Amherst School of Public Health and Health Sciences Department of Mathematics and Statistics https://www.math.umass.edu/

 $\underline{https://www.math.umass.edu/{\sim}gile/Seminar/}$

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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/

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

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Treasurer's Report for 2017 Prepared by Lisa Mukherjee, BCASA Treasurer

	Items	Amount	Balance
Beginning			\$4,800.75
checking balance			
Income	Membership dues and ASA	\$4,304.00	
	rebates		
	Short courses and Events	\$19,295.46	
	Stimulus funding from ASA	\$1,000.00	
Total income		\$24,599.46	
Expenses	Short courses and Events	\$18,944.06	
_	Planning Committee Meeting	\$466.09	
	dinners		
	Misc (gifts, supplies, etc.)	\$131.85	
Total Expenses		\$19,542.00	
Net Gain/Loss		\$5,057.46	
Ending checking			\$9,858.21
balance			·
Two CDs			\$15,196.07
Year-end Total			\$25,054.28

Assets as of Feb 10, 2018:

Bank account: \$6,991.62 CDs: \$15,196.07 \$22,187.69 Total:

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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, 2015-18	Yan Dong, OPKO Diagnostics		
BCASA COMMITTEE CHAIRPERSONS			
Education Committee	Shannon Stock, Holy Cross College		
Mu Sigma Rho	Liam O'Brien, Colby College		

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