

BCASA NEWSLETTER

Boston Chapter of the American Statistical Association

Serving

Maine, Massachusetts, New Hampshire, and Vermont

Volume 23, No. 1, September 2004

Homepage: <http://www.amstat.org/chapters/boston>

Overview of Scheduled Events

September 13, 2004	Evening Lecture	Cambridge, MA
October 19, 2004	Evening Lecture	Boston, MA
November 22, 2004	Evening Lecture	Cambridge, MA
December 1, 2004	Panel Discussion	Framingham, MA

Event schedule on the web: <http://www.amstat.org/chapters/boston/schedule.html>

Detailed announcements appear inside this newsletter. All events are announced to members by email providing sufficient advance notice to make plans to attend. We are currently planning events for the upcoming year. If you have suggestions please contact Program Chair Tom Lane.

EVENING LECTURE

Our Remembered Past, Confusing Present, and Hard to Predict Future

Fritz Scheuren

President-Elect of the American Statistical Association

Date: Monday, September 13, 2004

Time: 6:30 PM Light dinner (\$8 members; \$10 non-members; \$5 students)
7:00 PM Presentation (free)

Location: Main Building
Upper School
Buckingham Browne and Nichols School
80 Gerry's Landing Road
Cambridge, MA

RSVP: Required by 10 AM on September 3 to Sue Perry (sperry@rhoworld.com)
Specify whether you will have dinner.

Map: <http://www.bbns.org/directions.htm>
Click "Upper School" for directions.

Parking: Beyond Main Building, away from Cambridge.

Abstract: Statistics has changed greatly in the now long lifetime of the American Statistical Association (ASA). As you all know, ASA was founded in Boston in the decade (the 1830s) that we celebrated the 50th anniversary of our nation's independence. Arguably ASA's founding was part of the country's effort to seek recognition as a maturing nation and no longer just a lucky experiment.

The past of ASA encompasses the whole emergence of the paradigm of statistics, as we know it today. Some of those early elements still remain vital and I will cover these ideas and tie them to who we were and what we might yet be. If there is enough patience and time I will cover 11 of these -- an arbitrary number but ample for the purposes of a short talk.

The present always is confusing if one wants to extrapolate from it. This is not a new problem, of course. Indeed, former ASA presidents have made predictions about our profession, based on the point in time they served. Some of these will be reviewed, partly in admiration and partly, it must be added, as cautionary tales.

What is our future? Some of it is like the past and there is little we can do to change that. It is just "Happening"! Our future, though, can also be our work in progress. And we can actively shape it as individuals, as a community, and as a part of our larger society. I'll mention a few such opportunities in closing.

EVENING LECTURE

Genes and Networks

Paola Sebastiani
Department of Biostatistics
Boston University

Date: Tuesday, October 19, 2004

Time: 6:15 PM Light dinner (\$10 members; \$12 non-members; \$5 students)
7:00 PM Presentation (free)

Location: Department of Biostatistics
School of Public Health
Boston University Medical Campus
Room number will be determined soon and sent to those who register for the event.

Maps: <http://www.bu.edu/dbin/sph/about/visiting/map.php>

RSVP: Required by noon on October 14 to Sue Perry (sperry@rhoworld.com)
Specify whether you will have dinner.

Abstract: One of the most striking characteristics of biomedical research practice today is the availability of genomic-scale information. This situation has been created by the simultaneous but not unrelated development of "genome-wide" technologies, mostly rooted in the Human Genome Project: fast sequencing techniques, high-density genotype maps, DNA and protein microarrays. Sequencing and genotyping techniques have evolved into powerful tools to identify genetic variations across individuals responsible for predispositions to some disease, response to therapies, and other observable characters known as phenotypes.

Microarrays --the functional counterparts of these genomic platforms-- are designed to quantify the expression of genes by the amount of RNA produced by each single gene. Microarrays enable investigators to simultaneously measure the expression of thousands of genes and hold the promise to cast new light on to the regulatory mechanisms of the genome: the ability they offer to observe the genome in action has opened the possibility of profiling gene behaviors, studying interactions among genes, and discovering new classes of diseases on the basis of their genomic profile alone. All these technologies come to join, today, long-term cohort studies, like the Nurses' Health Study and the Framingham Heart Study, that have been collecting detailed "phenome-wide" information about hundreds of thousands of individuals over several decades. The challenge for the modern data analyst is to extract structured knowledge from these massive amounts of data.

This talk will describe the use of a methodology based on networks to model data sets of gene products or markers when the objective is to decode gene-gene interactions and possibly discover the control mechanism underlying a disease. Computational issues related to network parameterization, model search and validation, and probabilistic reasoning will be described and illustrated with examples arising from cancer genomics and genetic epidemiology.

EVENING LECTURE

Natural Hazards Risk Assessment: Modeling Hurricanes and Other Natural Hazards

Greta M. Ljung
AIR Worldwide Corporation
Boston, MA

- Date:** Monday, November 22, 2004
- Time:** 6:30 PM Light dinner (\$8 members; \$10 non-members; \$5 students)
7:00 PM Presentation (free)
- Location:** Main Building
Upper School
Buckingham Browne and Nichols School
80 Gerry's Landing Road
Cambridge, MA
- Map:** <http://www.bbns.org/directions.htm>
Click "Upper School" for directions.
- Parking:** Beyond Main Building, away from Cambridge.
- RSVP:** Required by noon on November 12 to Sue Perry (sperry@rhoworld.com)
Specify whether you will have dinner.
- Abstract:** On August 13, 2004, Hurricane Charley made landfall on the west coast of Florida causing death and destruction in its path. The economic losses from this hurricane are expected to exceed \$15 billion, making it the second-costliest hurricane since Hurricane Andrew devastated the Dade County area of Florida in the summer of 1992.

The high costs of hurricanes and other natural hazards have created a need among insurers, policy makers, and community planners to understand and assess the potential losses from these perils in various parts of the country. However, given the relative infrequency of these events, there is limited historical information on which to base an assessment of potential future loss. This presentation will describe the development and use of probabilistic models to estimate the insured losses caused by hurricanes along the U.S. coastline. These models attempt to extrapolate from the short historical record an accurate representation of the frequency and intensity of storms that could make landfall at any location. Statistical tools used to model annual storm frequency, landfall location, storm intensity, storm tracks, and other storm parameters will be described. Some statistical issues involved in modeling hail and tornadoes caused by severe thunderstorms will also be discussed.

PANEL DISCUSSION

Entrepreneurship, Statistics, and Forming Your Own Company

- Moderator:** Marvin Zelen, Department of Biostatistics, Harvard University, and Frontier Science Foundation
- Panel:** Phil Lavin, Averion
Sonja McKinley, New England Research Institute
Cyrus Mehta, Cytel Software

Date: Wednesday, December 1, 2004

Location: Averion, Inc.
4 California Ave.
Framingham, MA

Map: <http://www.averioninc.com/contact/contact-directions.htm>

Other Details: Time, registration information, and dinner cost will appear in the November newsletter.

Abstract: The growing demand for statistical consulting and collaborations, combined with the shortage of senior statisticians, has created opportunities for statisticians to form their own companies. This requires capital, careful planning, and risk taking which is the everyday experience of the business world, but is not part of the experiences of most of the statistical community. This Panel consists of statisticians who have founded their own companies. Panel members will discuss their own experiences and will address issues important for forming a successful company.

ANNOUNCEMENTS

New Fellows of the ASA

BCASA member I. Elaine Allen was elected a Fellow of the ASA this year. Another newly-elected Fellow from our region is Xiao-Li Meng. Past BCASA president Michael Stoto was also elected a Fellow this year. Congratulations to all!

Annual Award Nominations

The *BCASA Mosteller Statistician of the Year* award is presented each year at a banquet/lecture meeting in February. This award is given annually to a distinguished statistician who has made exceptional contributions in the field of statistics and has shown outstanding service to the statistical community and the Boston Chapter. Our current Statistician of the Year is Louise Ryan. Previous recipients of the BCASA Mosteller Statistician of the Year Award are Fred Mosteller, Herman Chernoff, Marvin Zelen, Ralph D'Agostino, William DuMouchel, Don Rubin, Nan Laird, David Hoaglin, Arlene Ash, Richard Goldstein, Cyrus Mehta, Alan Gelfand, Alan Zaslavsky, and John McKenzie. Anyone wishing to make suggestions regarding possible future recipients is encouraged to contact any of the chapter officers listed at the end of this newsletter.

Congratulations

Chapter member Alan Zaslavsky, Professor of Health Care Policy at the Harvard Medical School, received the prestigious Gertrude M. Cox Statistics Award from the Washington Statistical Society. This award recognizes statisticians who make significant contributions to statistical practice. Congratulations, Alan!

Chapter Dues

The BCASA newsletter is emailed to current members. Please be sure your membership is current by using your annual ASA membership renewal form and sending your BCASA dues to ASA. The BCASA membership fee is only \$9 (it's only \$3 for students) and BCASA members get discounts for events. Instructions are on our web site at <http://www.amstat.org/chapters/boston/join.html>. See the ASA web site for more information, including ASA membership discounts: <http://www.amstat.org/membership/index.cfm?fuseaction=join>.

Special Student Membership in the ASA

ASA dues for students are only \$25, but for first-time student members the dues are only \$10. See the opportunities and rewards for student members in the ASA at <http://www.amstat.org/membership/MembershipPresentation.ppt>.

BCASA Planning Committee

The BCASA planning committee meets every six weeks or so and new members are always welcome. The agenda varies but most of the meeting time is spent planning events while eating dinner. The Planning committee membership includes the officers, the committee chairs, and other interested members, and there are usually about 12 to 15 people at the meetings. The next meeting is tentatively scheduled for September 27. If you have ideas for a specific event or for the chapter in general, or if you would like to join the Planning Committee, please contact any of the chapter officers listed on the last page of this newsletter.

Chapter Election Results

In January 2005, newly-elected BCASA officers begin their terms. Scott Evans will start his second two-year term as President and Tom Lane will start his second two-year term as Program Chair. Bob Smith will continue to serve as Immediate Past President. Congratulations to all!

Accreditation of Professional Statisticians

Of potential interest to local statisticians thinking about future professional accreditation, the Statistical Society of Canada has just approved a new program for the Accreditation of Professional Statisticians. The official SSC Accreditation website is http://www.ssc.ca/main/about/accreditation_e.html. The program covers the domains of education, professional experience, professional development specific to subject matter fields of application, and a Code of Ethical Statistical Practice. For more information contact the Initial SSC Accreditation Committee Chairperson, Judy-Anne Chapman, at jachapma@aol.com.

Traveling Statistician Outreach Program

In this program, professional statisticians will travel to colleges and universities to give statistical talks and to discuss statistics as a profession. The targeted colleges and universities are those that may not have many statisticians because of geographic isolation or simply no statistics department. Interested schools and volunteer speakers should contact Scott Evans at evans@sdac.harvard.edu or Kerstin Allen at kallen@rhoworld.com.

Boston Chapter Career Day Planned for 2005

Statisticians of all levels, including students, will be invited to attend Career Day 2005. This event will be held on a Saturday in February (date to be determined). We will feature speakers from a variety of fields in statistics, and we will provide opportunities for statisticians to exchange resumes with potential employers. Attendees will also have the opportunity to meet the speakers over lunch, which will be provided. Please e-mail Education Committee Chairperson Kerstin Allen at kallen@rhoworld.com if you have any questions.

Weather Cancellation Policy

The members of the Planning Committee do not remember ever having any weather cancellations. Nevertheless, if the weather causes an event to be cancelled, the people who provided emails when they RSVP'ed will receive an email notification. The cancellation will also be posted on the BCASA website.

Spring Conference 2004

The International Conference on Analysis of Genomic Data, jointly organized by the Boston Chapter of the American Statistical Association and Channing Laboratory, Brigham & Women's Hospital and Harvard Medical School, took place in May 2004. It was a great success with over 400 people attending from 15 countries.

Isolated Statisticians Meeting

The New England Isolated Academic Statisticians Meeting (NEISM) 2004 will be held at Bryant University in Smithfield, RI, on Saturday, October 16, 2004 from 9:30 a.m. to 5:00 p.m. For more information please contact the local arrangement coordinator for NEISM 2004: Phyllis Schumacher, pschumac@bryant.edu, (401) 232-6328.

JOB OPPORTUNITIES

BIostatistician: The Center for Outcomes Research (COR) in the Department of Surgery at the University of Massachusetts Medical School is recruiting a biostatistician. This position reports to the senior biostatistician and is responsible for directing statistical activities for specific COR projects; provides technical support for COR faculty and staff in the design and development of study protocols; develops statistical plans and executes data analyses; develops and implements complex statistical models for COR research projects; and writes and presents the results of these analyses to COR staff as well as at national meetings. The position provides an excellent opportunity to publish and for travel related to scientific meetings as well as presentations and statistical support at national and international project-management meetings. We are looking for a person meeting the minimum qualifications of: Master's degree in biostatistics, mathematical statistics, epidemiology, or similar educational background. Five years experience in clinical/epidemiological research, biostatistics or applied statistics. Extensive experience in data management, data analysis, biostatistics, and epidemiology. Demonstrated ability to develop software programs and utilize existing statistical software packages for micro and mainframe computers (i.e. SPSS, SAS). Working knowledge of microcomputers and mainframe computers. Demonstrated ability to conduct and interpret multivariable regression analyses. Excellent communication, both oral and written, and interpersonal skills necessary to interact with a wide range of individuals. If you are interested in this position or know of someone who might be, please give Leigh Emery, the administrator for COR, a call at 508-856-3886, or email her at leigh.emery@umassmed.edu. You may review the entire job description and read about the work of the Center for Outcomes Research at <http://www.outcomes-umassmed.org/aboutus/>, review Careers at COR and Background respectively.

STATISTICAL SOFTWARE DEVELOPER: The MathWorks of Natick, MA, is seeking a creative statistician to help propose, plan, and develop the statistical programming tools we offer to our MATLAB customers. This includes the design, architecture, and development of statistical software and GUIs written in MATLAB and/or Java. The ability to work constructively in a team environment is vital. The candidate should have experience taking a project from concept to shipping. Qualifications include an M.S. with 3-5 years industry experience or a Ph.D.; expertise in computational math; experience with MATLAB, R, S-plus, or similar technical computing language; excellent written and verbal communication; ability to formulate realistic goals and meet commitments; and experience writing software for use by others. To apply, visit <http://www.mathworks.com/company/jobs/>. For more information contact Tom Lane, tlane@mathworks.com.

BIostatistician (RESEARCH ASSOCIATE): The Center for Clinical Investigation at Brigham and Women's Hospital is seeking a highly-qualified biostatistician to support all aspects of clinical investigation, including design and analysis of clinical studies, collaboration with investigators affiliated with Harvard Medical School, grant and protocol development and review, and teaching and mentoring of junior investigators. The Biostatistician will have a Research Associate appointment at Harvard Medical School. Minimum requirements: Masters in statistics or biostatistics, a strong record of collaborative research, excellent interpersonal skills, excellent oral and written communication, multitasking capability to handle numerous simultaneous projects, and a strong commitment to excellence in research. Candidates with broad consulting interests who enjoy collaborating with physicians and other research staff are encouraged to apply. Expertise in study design, grant writing, clinical trials, case-control and cohort studies, statistical genetics, protocol monitoring, hierarchical, longitudinal, survival, categorical, nonlinear, circadian, epidemiology, SAS. US citizenship or permanent residency required. Interested candidates should send a letter of interest, CV, writing sample, and three reference letters to: Ms. Priscilla Giunta, Hiring Coordinator, Center for Clinical Investigation, Brigham and Women's Hospital, 1620 Tremont Street, BC-CCI-3, Boston, MA 02120-1613.

MULTIPLE OPENINGS: The Center for Biostatistics in AIDS Research (CBAR) at the Harvard School of Public Health has immediate openings for PhD Research Associates and Research Scientists, as well as MS/MA Research Analysts. Successful applicants will join over 50 statisticians and epidemiologists collaborating in multi-center clinical trials and related research in AIDS and HIV. Doctoral applicants should demonstrate the ability to conduct collaborative and methodological research and have an interest in assuming a leadership role at CBAR. **PHD EPIDEMIOLOGIST:** to work with ALLRT project. The ALLRT study follows >3000 HIV+ subjects who were randomized to anti-HIV treatments and evaluates the clinical, virologic, immunologic, and pharmacologic outcomes associated with long-term treatment with potent antiretroviral therapies. **PHD BIostatistician:** join our growing program in human genomics: design and analysis of projects including microarray, SNP, haplotype data in conjunction with HIV trial data; methodological development; education at CBAR and within the AACTG. Courses/experience relevant to both genomics and clinical trials essential. **PHD BIostatistician:** to work on design, monitoring, and analyses of HIV-neurology clinical trials; applied and methodologic skills are desired. **PHD BIostatistician:** to work on Phase II and III clinical trials on the prevention and treatment of complications arising from HIV infection and treatment including cardiovascular, renal, and metabolic disorders. **MASTERS' LEVEL BIostatistician:** to work with human genomics (microarray, SNPs, haplotypes and LD) in conjunction with HIV trial data. Relevant courses/experience in addition to solid statistical background highly desirable. **MASTERS' LEVEL BIostatistician:** to work with large prospective cohort study (>3000 HIV+ subjects who were randomized to anti-HIV treatments) Courses/experience in longitudinal data and epidemiology essential. Inquiries: Dr. Janet W. Andersen, andersen@sdac.harvard.edu. To Apply, Submit Cover Letter and C.V. to: Kathy Clarkson, CBAR Hiring Coordinator, Harvard School of Public Health, 651 Huntington Avenue, Boston, MA 02115, Email: kclarkson@sdac.harvard.edu.

OFFICERS' REPORTS

Program Chair

Many thanks to all speakers and attendees who made the 2003-2004 BCASA season a successful one. This season included our usual Boston-area evening lectures, plus a daytime lecture, two lectures outside the Boston area, and a very successful conference.

The fall started off with two evening lectures. Nitin Patel spoke at MIT on data mining in Excel, showing software that he uses to teach data mining concepts to business students. In October, Eugene Gallagher took a break from his usual environmental work to visit BB&N and discuss issues he has found with the MCAS questions on probability and statistics. (MCAS is a standardized test given to all public high school students in Massachusetts, and with some exceptions a satisfactory score on this exam is required for high school graduation.)

In November we were pleased to receive a visit from ASA president Bob Mason. After private discussions with students at the Boston University School of Public Health, he spoke to the chapter about the statistics profession. (See also an announcement in this issue about an upcoming visit from ASA president-elect Fritz Scheuren.)

In December we had another well-attended daytime lecture at a new venue for us, the offices of Frontier Science. Shein Chow of Millennium Pharmaceuticals delivered a lecture entitled "Statistical Methods for Assessment of Individual/Population Bioequivalence."

Louise Ryan was honored as the Mosteller Statistician of the Year at an awards banquet held at Simmons College in January. Her presentation was entitled "Optimal Design for Epidemiological Cohort Studies, with Application to the Planned National Children's Study."

Our annual winter party was delayed until February, and held under icy conditions at the home of Judy and Tom Lane in Carlisle. We then returned to MIT in March, where Andrew Lo gave us a preview of his NESS talk, "Temporal Averaging and Nonstationarities in Financial Analysis." Also in the spring, we offered two talks outside the Boston area. Marcello Pagano traveled to Smith College in Northampton and spoke on the topic "Health Surveillance and Bioterrorism." Chapter president Scott Evans visited Plymouth State College in New Hampshire to speak to undergraduate students about "What do Biostatisticians do?"

By far our biggest event of the year was an International Conference on Analysis of Genomic Data. Mei-Ling Ting Lee did a superb job of organizing this conference attended by hundreds of people from around the world, both statisticians and biologists. A very full program of invited presentations, contributed papers, and posters allowed researchers to share their latest work in the hot areas of microarray data analysis, proteomic data analysis and population genetics. The chapter co-sponsored the conference along with the Channing Laboratory in the Department of Medicine of the Brigham and Women's Hospital and Harvard Medical School. The web page for this conference is still available at <http://www.amstat.org/chapters/boston/genomic/Main.htm>.

If you would like to present at a future chapter meeting, or you have a meeting place that we can use, or you just have ideas for future events, please contact me or any other officer listed on the last page of this newsletter.

Submitted by Tom Lane

ASA Council of Chapters Representative

The Boston chapter serves statisticians in Massachusetts, Vermont, New Hampshire and Maine. Our membership consists of approximately 350 people, and the chapter remains quite active. The Annual report for activities in 2003 included a dozen events, including evening lectures, social activities and the highly successful genomics conference. The planning committee of the chapter is busy coordinating the program for the upcoming year, and as always, welcomes suggestions for speakers or topics.

The chapter is considering applying for affiliate chapter status in Mu Sigma Rho, the national honorary society for statistics. The society's purpose is the promotion and encouragement of scholarly activity in statistics, and the recognition of outstanding achievement among the students and instructional staff in eligible academic institutions. Comments or suggestions, as well as volunteers to be part of a Mu Sigma Rho sub-committee would be appreciated.

In August, The Council of Chapters convened for its annual gathering at the Joint Statistics Meetings in Toronto. This meeting allows chapter representatives to share their experiences with other chapters. Career development is a particular focus this year. Resources available from other chapters and/or the national office include how to become involved with science fairs, project competitions, and poster days.

In addition to its regular activities, the chapter is soliciting proposals for initiatives that could benefit members or the wider community in our area (such as a connection with a local science fair, outreach to K-12 teachers, or a gathering of isolated industry statisticians). Funding has been provided recently to help isolated academic statisticians gather, and to arrange a career day.

Submitted by Nicholas Horton

The BCASA Newsletter is published four times during the academic year and is emailed to current BCASA members. Send your comments to any officer or newsletter production committee member.

BCASA CHAPTER OFFICERS

<i>President, 2003-04</i>	Scott Evans, Harvard School of Public Health
<i>Program Chair, 2003-04</i>	Tom Lane, The MathWorks
<i>Vice-President, 2004-05</i>	Shelley Hurwitz, Brigham and Women's Hospital
<i>Secretary, 2004-05</i>	Maureen Mayer, Raytheon Company
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<i>Council of Chapters Representative, 2003-05</i>	Nick Horton, Smith College
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