BCASA NEWSLETTER

Boston Chapter of the American Statistical Association

Serving

Maine, Massachusetts, New Hampshire, and Vermont

SCHEDULED EVENTS

January 22, 2005	Winter Potluck Party	Cambridge, MA
February 12, 2005	Career Day	Boston, MA
February 16, 2005	Award Banquet	Boston, MA
March 10, 2005	Afternoon Lecture	Northampton, MA
April 23, 2005	New England Statistics Symposium	Storrs, CT

Event schedule at the chapter website: http://www.amstat.org/chapters/boston/schedule.html

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

ANNUAL WINTER POTLUCK DINNER AND PARTY

Hosts Linda and Tom Marx

Date: Saturday, January 22, 2005

Time: 7:00 PM

Location: 196 Appleton Street
Cambridge, MA
(617) 491-2558

Directions: The Marx home is a few blocks west of Harvard Observatory, a few minutes' drive toward Belmont from Harvard Square. By public transportation it is about equidistant between Harvard Square and Porter Square. The home is between Concord Ave on the north and Huron Ave on the south, and between Royal Ave on the east and Walden Street on the west. Driving or walking from Harvard Square on Concord Ave, take the second left after the intersection of Concord and Huron Aves. It's the fourth house on the left, at the T intersection of Appleton and Saville Streets. There's on-street parking on nearby streets. Note that Appleton Street is one-way north between Huron and Concord Aves.

CAREER DAY

Sponsored by BCASA and the Boston University Department of Biostatistics
Hosted by Simmons College

Date: Saturday, February 12, 2005

Time: 10:30 AM to 3:00 PM

Cost: Free

Location: Simmons College Conference Center
Third floor, Main College Building
300 The Fenway
Boston, MA

RSVP: By February 2 if you want lunch. Email Sue Perry at sperry@rhoworld.com or phone (617) 965-8000 x21.

More Details: The official Career Day Flyer will be distributed by email. Information will also be at the chapter website. Direct questions to Education Committee Chairperson Kerstin Allen at kallen@rhoworld.com.

Abstract: Many fields require the use of statistics. Statisticians from a number of these fields have generously offered their time to present "what we do and why we like it." The following fields will be represented: Education, Clinical Trials, Epidemiology, Genomics, Pharmacokinetics, Industry Statistics, Actuarial Sciences, Natural Hazards, and Bioterrorism. Each panelist will talk about what s/he does as a statistician, provide a story, and give you a sense of what people look for when hiring statisticians in his or her field. In addition, a recruiter from a well-known firm will talk about the types of jobs that she has placed statisticians in and the types of salaries they tend to earn. During lunch you will have informal conversations about the type of work the speakers do. You will also have an opportunity to meet the speakers at the end of the presentations.

MOSTELLER STATISTICIAN OF THE YEAR BANQUET

Applications of Threshold Regression in AIDS Research,
Environmental Research, and Proteomic Studies

Mei-Ling Ting Lee
Associate Professor of Medicine (Biostatistics), Harvard Medical School
Associate Professor, Department of Biostatistics, Harvard School of Public Health

Date: Wednesday, February 16, 2004

Time: 6:15 - 6:45 PM: Social
6:45 - 7:30 PM: Dinner
7:30 - 8:45 PM: Presentation

Cost: Cash bar. Dinner is $30 for chapter members, $25 for students, $35 for others.
The presentation is free.

Location: The Inn at Longwood
342 Longwood Avenue
Boston, MA

RSVP: Required by noon on Wednesday, February 9 to Sue Perry at sperry@rhoworld.com. Specify whether you will attend the dinner.

Directions/Map: http://www.innatlongwood.com/hotel/65000023.asp. There are public parking garages nearby. The Longwood stop on the Green Line is a short walk away.

Abstract:

Regression methodology based on observed first hitting times of a threshold for a stochastic process is referred to as threshold regression. For example, the health status of a patient can be assumed to be a latent process. The time to reach the primary endpoint or failure (death, disease onset, etc.) is the time when the latent health status process first crosses a failure threshold level. Threshold regression does not require the proportional hazards assumption and in many ways is flexible and realistic for the analysis of time-to-event data.

Threshold regression was successfully applied in analyzing data from the protocol 116a of the AIDS Clinical Trials Group. Inferences for the regression model were based on censored survival data and marker measurements of CD4 counts. Covariates, such as treatment variables, risk factors, and baseline conditions, were related to the model parameters through generalized linear regression functions. The application illustrates how threshold regression offers a rich conceptual framework for the study of treatment effects.

In an application to environmental research, threshold regression was used in a retrospective longitudinal study of more than 50,000 US railroad workers tracked from 1959 to 1996. The initial investigation focused on lung cancer death because of a suspected link to diesel exhaust exposure. Based on the intuitive concept that a lung cancer mortality event occurs when the cumulative environmental diesel exposure of a subject first reaches a threshold level, a threshold regression model was found to be effective in providing insights into the process of disease progression.

Mass spectrometry technologies, such as matrix-assisted laser desorption/ionization (MALDI) and surface-enhanced laser desorption/ionization (SELDI), are used in proteomic studies. The technologies rely on time-of-flight (TOF) of ions from a source to a detector. A threshold model can also be used for analyzing such data

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AFTERNOON LECTURE

Sponsored by BCASA and the Smith College Department of Mathematics

The Waterworks Problem

Herman Chernoff
Professor Emeritus of Statistics, Harvard University
Professor Emeritus of Applied Mathematics, Massachusetts Institute of Technology

Date: March 10, 2005

Time: 3:00 PM

Location: Smith College
Burton 301
(Clark Science Center)
Northampton, MA

Details: http://maven.smith.edu/~nhorton/lecture.html

Abstract: A legal problem concerning the value of a waterworks system, to be taken by eminent domain, raises many issues in statistical practice. To evaluate the state of the mains carrying the water, 60 locations are sampled where the pipes are exposed and assessed. How should the assessed values be presented and used? The notions of random sample, mean, standard deviation, histogram, confidence interval, simulation, experimental design, and the central limit theorem are raised. Why we should take 60 locations rather than 30 or 120 may be examined in terms of utility theory.

19th New England Statistics Symposium

Hosted by the Department of Statistics
University of Connecticut

Date: April 23, 2005

Location: The University of Connecticut
Storrs, CT

Website: http://www.stat.uconn.edu/events/NESS/2005.

ANNOUNCEMENTS

Special Lectures by Professor Herman Chernoff

Professor Herman Chernoff will be presenting two very interesting special lectures in March as part of the BCASA Traveling Statistician Outreach program. (1) *The Kennedy Assassination* lecture will be at the University of Massachusetts at Amherst on March 9. This is a very popular lecture. Professor Chernoff was on a National Research Council committee that showed that the claim that there was a 95% probability of the existence of a shooter on the grassy knoll (evidence of conspiracy) was wrong. The committee's 1981 report was recently criticized, but the main criticisms do not hold up. Watch your BCASA email announcements for more information.   (2) *The Waterworks Problem* lecture will be presented at Smith College on March 10. This lecture is interesting for people at all levels, including beginners. It raises many intriguing statistical issues in estimation, confidence intervals, experimental design, and central limit theorem, and uses a simulation to establish how to check claims that would seem outrageous to someone who knows no statistics. See the listing in this newsletter for more information.

Traveling Statistician Outreach Program

In this ASA-funded program, professional statisticians 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 lack of a statistics department. Interested schools and volunteer speakers should contact Scott Evans at evans@sdac.harvard.edu or Kerstin Allen at kallen@rhoworld.com.

Upcoming Evening Lecture

We are planning an exciting evening lecture for the spring. Eugene Demidenko, Research Associate Professor of Community and Family Medicine (Biostatistics) at Dartmouth College, will present "Mixed Models: Future Directions and Applications." Watch for a BCASA email announcement with the exact date and location. Since the pioneering paper by Laird and Ware (1982), where the random effects model was applied to longitudinal data, mixed effects models have led to advances on several frontiers of modern statistics. This talk will illustrate exciting applications of mixed modeling methodology to shape and image analysis. This lecture will also touch on the use of mixed models in such areas as semiparametric regression, penalized smoothing and likelihood, compromise between frequentist and Bayesian approaches, an Akaike information criterion under multicollinearity, and coping with parameter multidimensionality. Finally, small-sample properties of the linear mixed effects model will be discussed. The talk is based on the author's recently published book, "Mixed Models: Theory and Applications," Wiley, 2004 (see www.dartmouth.edu/~eugened for details).

Summer Internships

If your company would like to offer summer internships to students studying statistics or mathematics, the BCASA can help locate candidates. We can announce the internship on our website, through our email list, and in the newsletter (next issue: March 2003). Contact Katherine Monti (kmonti@rhoworld.com) for details.

Chapter Elections

The Boston Chapter of the ASA has elections in the spring for terms of office that start the following January 1. Terms generally run for two years, however the ASA Council of Chapters Representative has a three-year term. Officers are elected in a staggered manner. Elections for the offices of Vice-President, Secretary, Treasurer, and Council of Chapters Representative will be held this year. Nominations will be accepted by Past-President Robert B. Smith, until the election.

Member News

Chapter member Shelley Hurwitz received the prestigious Partners in Excellence Award for Outstanding Community Contributions from Partners HealthCare at an awards ceremony in December 2004. Shelley is a member of the BCASA Planning Committee and currently serves as chapter Vice President.

BCASA Planning Committee

The BCASA Planning Committee meets approximately every six weeks and new members are always welcome. The agenda varies but most of the meeting time is spent planning events after eating dinner. The committee includes the officers, the committee chairs, and other interested members. There are usually about 12 to 15 people at the meetings. The next meeting is tentatively scheduled for January 26. 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.

JOB OPPORTUNITIES

BIOSTATISTICIAN (RESEARCH ASSOCIATE): The Center for Clinical Investigation at Brigham and Women's Hospital is seeking a highly-qualified Biostatistician to support 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 also have a role in the General Clinical Research Center, a well-established NIH-funded national research infrastructure program. The Biostatistician will have a Research Associate appointment at Harvard Medical School. Required: 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. Desired expertise includes study design, grant writing, clinical trials, case-control and cohort studies, statistical genetics, protocol monitoring, hierarchical, longitudinal, survival, categorical, nonlinear, epidemiology, and SAS. Located in the Longwood Medical Area adjacent to Harvard-affiliated institutions with numerous collegial, educational, and cultural opportunities. Very competitive salary and benefits for this academic position. US citizenship or permanent residency required. Interested candidates should send a letter of interest, CV, and 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. Applications are also accepted by email to Dr. Shelley Hurwitz, Biostatistics Director, at hurwitz@hms.harvard.edu.

FACULTY POSITION IN BIOSTATISTICS: Boston University School of Public Health Department of Biostatistics is seeking applicants for an assistant professor position to participate in methodological and collaborative research, and teaching. The Department has 21 full-time faculty members, MA and PhD candidates in Biostatistics, and concentrators for the MPH degree in Biostatistics. Desirable qualities include prior work in observational studies (including clinical and health services research), clinical trials or statistical genetics. Applicants should have a doctorate in statistics or biostatistics, and strong teaching, communication and writing skills. Send CV, research goals, teaching experience, and 3 reference letters to Dr. L. Adrienne Cupples, Boston University SPH, 715 Albany St., T4E, Boston, MA 02118. Boston University is an EO/AA Employer.

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.

OFFICER'S REPORT

Secretary

We have had a very busy year, with the chapter hosting numerous successful events. Continued web site development was undertaken by our BCASA program chair, Tom Lane. The address is http://www.amstat.org/chapters/boston/index.html. All comments and suggestions regarding our chapter's web site should be directed to Dr. Lane. The national ASA web site vastly improved its membership querying capability so it was decided that membership reports would rely on this nationally-collected data rather than our own local database. Chapter members are encouraged to join through the national organization. This eases the burden of maintaining our own local data and reduces the risk of duplicate, inconsistent data. Special requests must still be made to the Chapters and Sections Coordinator to obtain information such as chapter committee memberships and officer positions held.

Composition of the chapter members elected to be included in the national directory remains primarily academic (51.67%), followed by pharmaceutical and biomedical (20.31%). Largest chapter representations are in the Biometrics (24.3%) and Bio-Pharmaceutical (20.3%) sections. Other large representations are in Statistics in Epidemiology (14.7%), Computers and Graphics (13.6%), Statistical Consulting (13.4%), Statistical Education (12.6%), Bayesian Statistical Science (11.6%), and health Policy Statistics (11.6%). A new National Defense and National Security (SDNS) section was started this year and has some local representation (1.8%). These results are based on data from 26 October 2004. As our web site highlights, we had one of our local members named as a fellow of the ASA, I. Elaine Allen. As of 4 January 2005 BCASA had 409 members (389 10-26-2004, 364 10-10-2003). Membership counts by state are 295 (-5 from 10-10-2003) in Massachusetts, 9 in New Hampshire (-2), 9 in Connecticut (+3), 9 Vermont, 9 in Rhode Island (-3), 7 Maine (-1), 6 in New York (+2), and 2 NJ (-1), 1 California (0).

We look forward to another year of continuing our membership recruiting efforts as well as continuing to provide our current members with interesting events and activities. The planning committee meets every six weeks to plan events and we encourage all members who would like to contribute to contact any of the BCASA officers.

Submitted by Maureen P. Mayer

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

BCASA OFFICERS

President, 2005-06	Scott Evans, Harvard School of Public Health
Program Chair, 2005-06	Tom Lane, The MathWorks
Vice-President, 2004-05	Shelley Hurwitz, Brigham and Women's Hospital
Secretary, 2004-05	Maureen P. Mayer, Raytheon Company
Treasurer, 2004-05	Michael Posner, Boston University School of Public Health
Council of Chapters Representative, 2003-05	Nicholas Horton, Smith College
Past President, 2005-06	Robert B. Smith, Social Structural Research Inc.

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