

BCASA NEWSLETTER

Boston Chapter of the American Statistical Association
Serving Maine, Massachusetts, New Hampshire, and Vermont

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

Newsletter: BCASANews@comcast.net

Upcoming Events

September 27, 2008	Harvard University	<i>Symposium: Major Birthdays of</i>
9:45 am	Cambridge, MA	<i>Statistical Ideas and Their Inventors</i>
October 15, 2008	BU School of Medicine	<i>Dinner/Lecture: Statistical Help for</i>
6:00 pm	Boston, MA	<i>Troubled U.S. Elections</i>
October 25, 2008	MathWorks	<i>Workshop: Applied Logistic Regression</i>
10:00 am	Natick, MA	
October 25, 2008	Pine Manor College	<i>Symposium: 13th New England Isolated</i>
9:30 am	Chestnut Hill, MA	<i>Statisticians Meeting</i>
November 15, 2008	MathWorks	<i>Workshop: Bootstrap Methods and</i>
9:45 am	Natick, MA	<i>Permutation Tests</i>

For an updated schedule of events go to <http://www.amstat.org/chapters/boston/schedule.html>. All events are announced in advance to members on our email list. Please send suggestions and comments to Program Chair Matt Tom: tomma@emmanuel.edu.

WORKSHOPS

Applied Logistic Regression

Instructor: David W. Hosmer
Date/Time: Saturday, October 25, 2008; 10:00 am to 3:00 pm
Location: MathWorks, 3 Apple Hill Drive, Natick, MA 01760
<http://www.mathworks.com/company/aboutus/directions.html>
Cost: \$50 for full-time students; \$75 for non-student, BCASA members, \$100 for others. Price includes lunch and handouts.
Registration: Send check **by October 18, 2008** payable to BCASA to:

BCASA c/o Yu Zhao
FXB 549A
651 Huntington Avenue
Boston MA 02115

To pay by Visa or Mastercard, contact yzhao@sdac.harvard.edu.

The course will cover these topics:

Introduction to the Logistic Regression Model

Multiple Logistic Regression

- Fitting the model
- Testing for the significance of the model
- Confidence interval estimation

Interpretation of the Fitted Logistic Regression Model

- Dichotomous and polytomous predictors
- Continuous predictors
- Interaction and confounding

Model-Building Strategies

Assessing the Fit of the Model

- Summary measures of goodness-of-fit
- Logistic regression diagnostics

Dr. Hosmer is Professor Emeritus of Statistics at the University of Massachusetts Amherst and Adjunct Professor of Statistics at the University of Vermont. He is a Fellow of the American Statistical Society and co-author, with Dr. Stanley Lemeshow, of *Applied Logistic Regression and Applied Survival Analysis*. He is also co-author, with Dr. Stanley Lemeshow and Dr. Susanne May, of *Regression modeling of Time to Event Data*.

Bootstrap Methods and Permutation Tests

Instructor: Tim Hesterberg
Date/Time: Saturday, November 15, 2008; 9:45 am to 5:00 pm
Location: MathWorks, 3 Apple Hill Drive, Natick, MA 01760
<http://www.mathworks.com/company/aboutus/directions.html>
Cost: \$50 for full-time students; \$75 for non-student, BCASA members, \$100 for others. Price includes lunch and handouts.
Registration: Send check **by November 8, 2008** payable to BCASA to:

BCASA c/o Yu Zhao
FXB 549A
651 Huntington Avenue
Boston MA 02115

To pay by Visa or Mastercard, contact yzhao@sdac.harvard.edu.

Interest in computer-based resampling methods has increased dramatically over the past 20 years. Two resampling methods, bootstrapping and permutation tests, have been successfully applied to areas of statistical modeling where "traditional" standard errors, confidence intervals, and significance tests are unavailable or are of doubtful accuracy. Even in situations where traditional methods are usually applied, resampling methods are valuable as a validity check. Resampling results may surprise many experienced statisticians. The old rule of requiring sample sizes of at least 30 before applying Gaussian-based methods is, for example, inaccurate in the presence of skewness.

Resampling methods offer graphical and numerical diagnostics for standard assumptions. They also offer practitioners greater flexibility in modeling because they provide robust alternatives, and use resampling for inferences. Resampling also offers the flexibility to handle complex sampling situations without extensive analytical derivations.

The course begins with a graphical approach to bootstrapping and permutation testing, illuminating basic statistical concepts of standard errors, confidence intervals, p-values and significance tests. We consider graphical and numerical diagnostic checks for the validity of traditional Gaussian-based inferences. We then broaden our scope (1) to a wider variety of applications, including cases where bootstrapping fails; (2) to consider additional sampling methods, including finite-sample and hierarchical sampling and parametric bootstrapping; and (3) to discuss additional resampling methods, including the jackknife, influence methods, and cross-validation. The emphasis is on practical applications, with occasional notes about underlying theory.

Tim Hesterberg is a Senior Research Scientist at Google. He previously worked at Insightful (S-PLUS), Franklin and Marshall College, and Pacific Gas and Electric. He received his Ph.D. in Statistics from Stanford University, under Brad Efron. Hesterberg is primary author of the

S+Resample package for bootstrapping, permutation tests, jackknife, and other resampling procedures, and is lead author of *Bootstrap Methods and Permutation Tests* (2003). The instructor is Past-Chair of the Statistical Computing Section of the American Statistical Association, and was on the Executive Board of the Interface Foundation of North America (Interface between Computing Science and Statistics).

This workshop is co-sponsored by the Rhode Island and Connecticut chapters of the ASA.

DINNER and LECTURE

Statistical Help for Troubled U.S. Elections

Speaker: Arlene Ash
Date/Time: Wednesday, October 15, 2008. Lecture 7:30 pm.
Social 6:00 pm; Dinner 6:30 pm.
Location: Boston University School of Medicine, 801 Massachusetts Avenue (just south of the corner with Albany Street. Section of General Internal Medicine, 2nd floor.
Cost: The event is free but the cost of dinner is \$10 for members and for students and \$15 for others.
Registration: Send name, e-mail address, and status (member, student, other) to Sue Perry: sperry@rhoworld.com. Also indicate whether or not you intend to have dinner.

Note: This presentation will be broadcast live, via Centra. For information about how to connect, contact Dominique Haughton: dhaughton@bentley.edu.

US election administration is a highly decentralized, complex industrial process that is little subject to continuous quality improvement. We briefly discuss the key requirements of high-integrity elections, what is known (or believed) about the relative importance of different process steps, and theoretical, practical and political barriers to fixing the most important problems. We will describe key statistical (and legal) issues regarding Florida's CD-13 failed election in 2006 and ASA initiatives that directly involve statisticians in improving the integrity of US elections.

Arlene Ash is Director of the Health Care Research Unit at the Boston University School of Medicine and Past Chair of ASA's Health Policy Statistics Section. She is a Fellow of the ASA.

SYMPOSIA

13th New England Isolated Statisticians Meeting

Date/Time: Saturday, October 25, 2008; 9:30 am to 5:00 pm

Location: Pine Manor College, Chestnut Hill, MA

This annual event is a wonderful opportunity for statisticians isolated (usually, but not always, in mathematics departments) to discuss, in some depth, topics related to teaching statistics.

Parking is easily available, and the campus is also T-accessible. Please send suggestions for discussion topics to the organizer, Joan Weinstein at weinstej@pmc.edu.

9:30 am – 10:00 am Registration and refreshments
10:00 am – 12:30 pm Morning session
12:30 pm – 2:00 pm Lunch
2:00 pm – 4:30 pm Afternoon session
4:30 pm – 5:00 pm Wrap-up

Quintessential Contributions: Celebrating Major Birthdays of Statistical Ideas and Their Inventors

Host: Department of Statistics, Harvard University

Date/Time: Saturday, September 27, 2008, 9:45 am to 5:00 pm

Location: Radcliffe Gym, Harvard University, 18 Mason Street, Cambridge, MA

Cost: Free for current and former Harvard affiliates. Others: \$50.00 (including beverages and food).

Website: http://www.stat.harvard.edu/?mode=About&page=quintessential_contributions.html

Preliminary Schedule of Events

Celebrating the 65th birthday of Donald B. Rubin and the 30th birthday of his "Multiple Imputations in Sample Surveys: A Phenomenological Bayesian Approach to Nonresponse." Invited Speaker: Fritz Scheuren.

Celebrating the 70th birthday of Carl N. Morris and the 25th birthday of his "Parametric Empirical Bayes Inference: Theory and Applications." Invited Speaker: Andrew Gelman.

Celebrating the 85th birthday of Herman Chernoff and the 35th birthday of his "The Use of Faces to Represent Points in K-Dimensional Space Graphically." Invited Speaker: Steve Wang.

Celebrating the 100th birthday of W.S. 'Student' Gosset's "The Probable Error of a Mean." Invited Speaker: Stephen Stigler.

JOB OPPORTUNITY

Statistician, Assistant Professor

Tufts University School of Dental Medicine invites applications for a full-time, contract-track statistician appointed as assistant professor, reporting to the Director of Advanced and Graduate Education within the Tufts University Scientific and Clinical Research Center. This position is part of a growing research team charged with enhancing the scope, breadth and funding levels of research projects at TUSDM.

Primary responsibilities include:

- * Teaching core statistical courses for graduate and post-graduate students at the School of Dental Medicine;
- * Providing analytic and statistical support to faculty and students from protocol inception to final reporting;
- * Mentoring predoctoral and postdoctoral students with research design and project implementation;
- * Serving on various committees for thesis reviews, fellowship assignments, etc;
- * Presenting research findings at various conferences.

Qualified applicants must possess a Ph.D. or equivalent degree in Statistics, Biostatistics or Epidemiology, and have one to three years experience in clinical research. In addition, applicants should have a knowledge of study design, familiarity with various statistical software packages (SAS and SPSS), some teaching experience, strong communication skills and the ability to work with junior investigators and administrators.

Send CV to:

Paul Stark, M.S., Sc.D.
Director of Advanced and Graduate Education
Tufts University School of Dental Medicine
One Kneeland St.
DHS 639
Boston, MA 02111

or via email to paul.stark@tufts.edu

Tufts University is an AA/EOE employer and actively seeks candidates from diverse backgrounds.

REPORT

To the Council of Chapters Representatives

The Boston chapter serves statisticians in Massachusetts, Vermont, New Hampshire, and Maine. As of 8/6/08 our membership consists of 460 people (up from 440 at 9/1/2007). Overall, the chapter remains very active, with eight events, including evening lectures, social activities, and short courses during the past year. The chapter remains an active affiliate of Mu Sigma Rho (the national honorary society for statistics) and inducted 18 new members this year. The planning committee of the chapter is busy coordinating the program for the upcoming year. As always, suggestions for speakers and topics are welcomed.

In August, the Council of Chapters Representatives convened for its annual gathering at the Joint Statistics Meetings. The council meeting allows chapter representatives to share their experiences with other chapters. Congratulations are in order for Scott Evans, who received the Chapter Service Recognition Award, and to Katherine Monti, who was recognized for her distinguished service on the ASA Board of Directors and the Council of Chapters Representatives. Congratulations also to BCASA members named as Fellows of the American Statistical Association: Katherine T. Halvorsen (Smith College, Northampton MA) and Phillip T. Lavin (Averion International Corporation, Southborough MA).

Nicholas Horton
Council of Chapters Representative

ANNOUNCEMENTS

Nominations for Mosteller Statistician of the Year

The BCASA Mosteller Statistician of the Year award is presented each year at a banquet/lecture in February to a distinguished statistician who has made exceptional contributions to the field of statistics and has shown outstanding service to the statistical community and to the Boston Chapter. Richard DeVeaux, of Williams College, won the 2008 award. Previous award recipients are Fred Mosteller (1990), Herman Chernoff (1991), Marvin Zelen (1992), Ralph D'Agostino (1993), William DuMouchel (1994), Don Rubin (1995), Nan Laird (1996), David Hoaglin (1997), Richard Goldstein (1998), Arlene Ash (1999), Cyrus Mehta (2000), Alan Gelfand (2001), Alan Zaslavsky (2002), John D. McKenzie, Jr. (2003), Louise Ryan (2004), Mei Ling Tee Lee (2005), Carl Morris (2006), and L. J. Wei (2007).

Please forward all nominations by **October 6, 2008** to Dominique Haughton: dhaughton@bentley.edu. Include a brief description of the person's qualifications for the award. Voting will take place at the October Planning Committee meeting.

Elections

Elections for BCASA president, program chair, and chapter representative will be held at the Dinner/Lecture event on October 15. Please send nominations to Scott Evans at evans@sdac.harvard.edu.

Future Events

Would you like to host a BCASA-sponsored event? Please contact Matt Tom at tomma@emmanuel.edu. The chapter might be able to help with the event and also provide modest financial support.

Annual Holiday Party

Please contact Matt Tom at tomma@emmanuel.edu or Dominique Haughton at dhaughton@bentley.edu if you are interested in hosting the annual holiday party.

BCASA OFFICERS

President	Dominique Haughton <i>Bentley College</i>
Program Chair	Matt Tom <i>Emmanuel College</i>
Vice-President	James McDougall <i>Ironwood Pharmaceuticals</i>
Secretary	Tzu-Min Yeh <i>Harvard School of Public Health</i>
Treasurer	Yu Zhao <i>Harvard School of Public Health</i>
Chapter Representative	Nicholas Horton <i>Smith College</i>
Past President	Scott Evans <i>Harvard School of Public Health</i>

BCASA COMMITTEE CHAIRPERSONS

Education	Kerstin Allen <i>Rho Inc.</i>
Email list and Website	Tom Lane <i>MathWorks</i>
Membership	Maureen Mayer <i>Raytheon Corporation</i>
Publications	Shelley Hurwitz <i>Harvard Medical School</i>
Mu Sigma Rho	Nicholas Horton <i>Smith College</i>

BCASA NEWSLETTER

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The BCASA Newsletter is published four times during the academic year and is emailed to all BCASA members. Please send suggestions and comments to the editor, Stan Morse, at BCASANews@comcast.net