# BCASA NEWSLETTER

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

Volume 30, No. 4, March 2012

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

Newsletter: <u>BCASANews@verizon.net</u>

## Upcoming Events

Tuesday, March 13,2012	UMass Medical Center, Worcester	Lecture: Andrea Faulkes on Genetic Association Studies
Tuesday, March 27, 2012	Simmons College, Boston	Statistician of Year Banquet: Katherine Taylor Halvorsen
Saturday, April 21, 2012	Boston University, Boston	26 <sup>th</sup> New England Statistical Symposium
Monday, April 30, 2012	Sloan School MIT, Cambridge	Panel: Statisticians in a World With a Deluge of Data
Wednesday, May 9, 2012	Buckingham Browne & Nichols School, Cambridge	Lecture: Robert Smith on Presidential Voting, Implications for 2012
Saturday, June 23 to Tuesday, June 26, 2012	Westin Waterfront Hotel, Boston	International Chinese Statistical Association Symposium

Regional			
Thursday, March 22,	Yale University, New Haven, CT	10 <sup>th</sup> ASA Connecticut Chapter Mini-	
2012	New naven, CI	Conference	

## LECTURES

#### Statistical Challenges and Principled Solutions for Genetic Association Studies

Andrea Foulkes

School of Public Health and Health Sciences, University of Massachusetts

Tuesday, March 13, 2012
Noon
Belmont Hill Conference Room, AC7-211, University of Massachusetts Medical School 55 Lake Avenue North Worcester, MA 01655
http://mar2012umass.eventbrite.com
stephen.baker@umassmed.edu

Dr. Foulkes is the author of the recent Springer text *Applied Statistical Genetics with R: For Population-based Association Studies (Use R!)* 

#### MOSTELLER STATISTICIAN OF THE YEAR BANQUET

#### Statistics Education and the Common Core State Standards for Mathematics

Katherine Taylor Halvorsen

Smith College

Date	Tuesday, March 27, 2012
Time	Social: 6:00 pm ; Dinner: 6:30 pm ; Presentation: 7:00 pm
Location	Kotzen Room, Library Tower, Simmons College, 300 The Fenway, Boston, MA
Registration	By March 20 <u>http://bcasa2012mar.eventbrite.com</u>
Cost	Dinner: \$20 for chapter members; \$25 for non-members; students free. Presentation: free.

#### <u>Abstract</u>

The Common Core State Standards (CCSS) for Mathematics were released on June 6, 2010 by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). These standards contain much of the material now taught in the first-year college course in introductory statistics, and currently 43 states have adopted them. They replace individual state standards that were developed in compliance with the Improving America's Schools Act of 1994 and the No-Child-Left-Behind Act of 2001. PARCC, the Partnership for Assessment of Readiness for College and Careers, is a 24-state consortium working together to develop a common set of assessments aligned with the Common Core State Standards. Massachusetts has adopted the CCSS and is a member of the PARCC consortium. This talk outlines the statistics content of the CCSS and considers the implications for the introductory college course.

#### The Award

Every year the Boston Chapter presents the Statistician of the Year award to a distinguished statistician who has made exceptional contributions to the field of statistics and has shown outstanding service to the statistical community. In 1997, this award was renamed the Mosteller Statistician of the Year award in honor of the 80<sup>th</sup> birthday of its first recipient, Fred Mosteller. Individuals from academia, industry, and government who have contributed to the Boston Chapter are considered for the award. For a list of past award winners, see <a href="http://amstat.org/chapters/boston/awards.html">http://amstat.org/chapters/boston/awards.html</a>

#### Aspects of Presidential Voting (and Implications for 2012)

Robert B. Smith

Date	Wednesday, May 9, 2012
Time	Light Dinner: 6:15 pm; Presentation: 7:00 pm
Location	Buckingham Browne & Nichols School, 80 Gerry's Landing Road, Cambridge, MA
Registration	By May 1 <a href="http://bcasa2012may.eventbrite.com">http://bcasa2012may.eventbrite.com</a>
Directions	http://bbns.org/contact/directions
Cost	Dinner: \$8 for chapter members; \$10 for non-members; students free. Presentation: free.

Dr. Smith is the author of *Multilevel Modeling of Social Problems: A Causal Perspective* (Springer, 2011).

#### <u>Abstract</u>

Developing a theoretical and empirical paradigm for the study of presidential elections, this presentation presents in-depth analyses of a major election-night telephone survey of voters in the 2008 election. It focuses on the impacts of variables of social structure, ideology, party affiliation, the issues, and facilitating factors. The interrelationships among these factors are modeled using multilevel and structural equation statistical procedures. Some surprising findings: Obama and McCain were about even among traditional voters. However early deciders, early voters, eager voters, mail-in voters, those who only voted for the presidential candidates, those who did not vote in the 2006 congressional election, and those having disdain for President Bush were more likely to vote for Obama. In terms of ideology, political moderates were more likely to support Obama than McCain. The mechanism linking political ideology with party affiliation and then to vote is strongly supported in these data. When these individual-level variables are controlled, the Red-Purple-Blue (RPB) macro typology of states and a measure of economic discontent have little direct effects on vote in these multilevel models. A state's position on the RPB typology is shaped by its human development level, gauged by its citizen's health, education, and income. That is, Blue states, which usually support the Democratic candidates, have higher human development scores than the Red states, which usually support the Republican candidates. Both macro variables have very similar correlations with measures of risks to human development, political sentiments, and post-industrial indicators. The Blue states are more likely to have post-industrial economies, whereas the red states are more likely to have industrial or even pre-industrial economies; this is a key difference among the states that drives their political orientation. The summarizing

#### PANEL DISCUSSION

that reduce the states' health, education, and economic well-being.

#### The Role of Statisticians in a World with a Deluge of Data

John McKenzie Babson College

Roy Welsch Massachusetts Institute of Technology

Date	Monday, April 30, 2012
Time	Light Dinner: 6:15 pm; Presentation: 7:00 pm
Location	Room E62-221, Sloan School of Management, MIT, 100 Main Street, Cambridge, MA
Registration	http://bcasa2012april.eventbrite.com/
Directions	http://mitsloan.mit.edu/about/directions.php
Cost	Dinner: \$8 for chapter members; \$10 for non-members; students free. Panel: free.

#### <u>Abstract</u>

The theme of the April 2012 Mathematics Awareness Month is "Mathematics, Statistics, and the Data Deluge". Enormous amounts of data are now available with today's technology. Among the sources of these data are astronomy, finance, genomics, marketing, meteorology, social networking, sports, and transportation. Such "Big Data" refers to data sets whose size cannot be managed, processed, or analyzed with commonly used software in a reasonable amount of time. The panelists will present perspectives on the role of statisticians when working with this flood of data. After their presentations there will be ample time for questions and comments from the audience.

#### **OTHER LOCAL EVENTS**

#### 26th New England Statistics Symposium

Date	Saturday, April 21, 2012
Location	Boston University, Boston, MA
Information	http://math.bu.edu/ness12_

#### Introduction

The Department of Mathematics and Statistics and the Department of Biostatistics at Boston University are hosting the symposium. Professors Rick Durrett from Duke University and Robert Kass from Carnegie Mellon University will give the NESS 2012 plenary talks in probability and statistics, respectively. There will be three half-day short courses on April 20: "Financial modeling and limit order books" presented by Rama Cont from Columbia University; "Statistical Analysis of Network Data", presented by Eric Kolaczyk from Boston University; and "Adaptive Clinical Trial Design and Simulation", presented by Mark Chang from AMAG Pharmaceuticals.

Students are encouraged to submit papers and an application for the student paper competition. The deadline for abstract submission for contributed talks (including those associated with the student paper competition) is March 31, 2012.

## International Chinese Statistical Association Applied Statistics Symposium

Date Location Information Saturday, June 23 to Tuesday, June 26, 2012 Westin Waterfront Hotel, Boston, MA <u>http://www.icsa.org</u>

## **REGIONAL EVENT**

## 10th Annual ASA Connecticut Chapter Mini-conference:

## **Emerging Statistical Issues in Clinical Trials**

Date	Thursday, March 22, 2012
Time	8:30 am to 4:30 pm
Location	West Campus, Yale University, New Haven, CT
Early Registration	Deadline February 29, 2012
Information & Abstracts	http://www.amstat.org/chapters/Connecticut/home/MiniConference/miniconf_index.htm

#### **Speakers**

Susan Murphy; Ajit C. Tamhane; Jason Fine; Lorenzo Trippa; Aurelien Latouche

## ANNOUNCEMENTS

#### **Proposals for Event Funding**

The BCASA is accepting proposals for supplementary support funding to plan and conduct events with a statistical theme. Qualified events include short courses and other educational events but are not limited to these. This request for proposals is open until further notice.

• Proposals should be no more than 3 pages in length with 2 pages being a description of the program, date and time, program sponsors, location and information on parking or public transportation, targeted audience/expected attendees, rationale for why the program is important and will be attractive to potential attendees, and people responsible for program planning and conduct. The last page is a budget plan.

- Funding for up to \$750 can be requested.
- The event must be open to all chapter members.
- The event must be advertised in the chapter newsletter.

• It is expected that the BCASA is not the only resource supporting the event (e.g., a department or other sponsor should be involved in organization or nominal fees to attendees should be charged).

• Any fees charged to attendees should be reasonable, with special discounts for students. The expectation is that the event will be affordable to statisticians.

• A report of the event must be submitted to BCASA upon completion of the event with possible publication of the event in the BCASA newsletter. The report should include an estimate on the number of attendees, attendee comments, an evaluation of the program, and a financial summary.

• Unused funds should be returned to the BCASA.

• Proposals will be reviewed by members of the Planning Committee of the BCASA. Applicants will be contacted shortly after the Planning Committee meeting that follows application submission.

• Questions should be directed to Scott Evans (evans@sdac.harvard.edu).

• Proposals should be electronically submitted at least 6 weeks prior to the program to Scott Evans (<u>evans@sdac.harvard.edu</u>).

#### Member News

Dick De Veaux will be running for the position of Council of Sections Representative to the ASA Board of Directors this Spring.

#### Mu Sigma Rho

The BCASA encourages all faculty teaching statistics in Massachusetts, Rhode Island, Vermont, New Hampshire and Maine to consider nominating undergraduate and graduate statistics students for membership in Mu Sigma Rho, the national honorary society for statistics.

Inductees will receive a free membership in the ASA and BCASA and a subscription to *Chance* magazine. This is a great way to encourage your top students to pursue a career in statistics and to introduce them to many useful resources and job opportunities.

The process is straightforward for both the nominator and nominee. Nominators should fill out the online nomination form at

http://www.colby.edu/academics\_cs/mu\_sigma\_rho/msrnom.cfm

A transcript (unofficial is fine) and \$5 induction fee for each nominee then need to be mailed to:

Liam O'Brien Department of Mathematics and Statistics Colby College 5838 Mayflower Hill Waterville, ME 04901-8858

The deadline for nominations has been extended to *March 15*. The nominee only needs to confirm his or her interest and to approve his or her transcripts being forwarded.

#### BCASA Planning Committee

The BCASA Planning Committee meets approximately every six weeks. Please join us and have an impact on chapter events and activities. Dinner is provided. For more information contact Chapter President Tom Lane:

tlane@alum.mit.edu

#### **Call for Nominations for BCASA Officers**

Several BCASA officer terms are up for election this year for terms starting on January 1, 2013. These are

President, Program Chair, Webmaster, and Newsletter Editor (two-year terms)

Council of Chapters Representative (three-year term)

We typically hold elections at the final event of the academic year. If you are interested in nominating yourself or anyone else for these positions, please contact current President Tom Lane

tlane@alum.mit.edu

or Past President Dominque Houghton

dhaughton@bentley.edu

New volunteers are always welcome and greatly needed.

#### Nominations for Gertrude M. Cox Award

Please help celebrate the 10<sup>th</sup> Anniversary of the Gertrude M. Cox Award by nominating eligible colleagues for the award.

The was established in 2003 through a joint agreement between the Washington Statistical Society (WSS) and RTI International. The award annually recognizes a statistician in early to mid-career (less than 15 years after his/her terminal degree) who has made significant contributions to one or more of the areas of applied statistics in which Gertrude Cox worked: survey methodology, experimental design, biostatistics, and statistical computing.

In 1945, Dr.Cox became director of the Institute of Statistics of the Consolidated University of North Carolina. In the 1950's, as Head of the Department of Experimental Statistics at North Carolina State College, she played a key role in establishing Mathematical Statistics and Biostatistics Departments at the University of North Carolina. Upon her retirement from North Carolina State University in 1960, Dr. Cox became the first head of Statistical Research Division at the newly founded RTI. She was a founding member of the International Biometric Society (IBS) and in 1949 became the first woman elected into the International Statistical Institute. She served as president of both The American Statistical Association (1956) and the IBS (1968-69). In 1975 she was elected to the National Academy of Sciences.

The award is presented at the WSS Annual Dinner, usually held in June, with the recipient delivering the keynote address on a topic of general interest to the WSS membership.

The recipient is chosen by a six-person committee - three each from WSS and RTI. This year's committee consists of Keith Rust, Jonaki Bose, and Michael Brick from WSS; Marcus Berzofsky, Phil Kott, and Karol Krotki (Chair) from RTI. The award consists of a \$1,000 honorarium, travel expenses to attend the WSS Annual Dinner, and a commemorative WSS plaque. Past recipients have been Sharon Lohr, Alan Zaslavsky, Tom Belin, Vance Berger, Francesca Domenici, Thomas Lumley, Jean Opsomer, Michael Elliott, and Nilanjan Chatterjee.

Please email your nominations to Karol Krotki (<u>kkrotki@rti.org</u>) by March 16, 2012.

Please submit a supporting statement and cv (or a link) for the candidate being nominated.

## 32nd General Conference of the International Association for Research in Income and Wealth (IARIW)

Date	August 5 to 11, 2012	
Host	Bureau of Economic Analysis	
Location	Royal Sonesta Hotel, Boston, MA	
Registration	www.iariw2012.com	
Information	IARIW2012@bea	

## International Conference on Methods for Surveying and Enumerating Hard-to- Reach Populations

Date	October 31 to November 3, 2012	
Location	Marriott New Orleans at the Convention Center,	
	New Orleans,LA	
Information	www.amstat.org/meetings/h2r/2012	

#### Description

The H2R 2012 conference will bring together survey methodologists, sociologists, statisticians, demographers, ethnographers, and other professionals from around the world to present new and innovative techniques for surveying hard-to-reach populations. Addressing both the statistical and survey design aspects of including hard-to-reach groups, researchers will report findings from censuses, surveys, and other research related to the identification, definition, measurement, and methodologies for surveying and enumerating undercounted populations. Just Announced! Short Courses: Social Media Research Methods; Respondent-Driven Sampling Designing and Developing Instruments Across Cultures and Languages.

## REPORTS

#### Meeting of New England Isolated Statisticians

The 16<sup>th</sup> New England Isolated Statisticians Meeting (NEISM16) was held at Emmanuel College in Boston on November 5. Twenty statistics instructors from across New England and from a wide range of institutions spent the day discussing issues related to teaching (and learning) statistics.

The first part of the morning was given over to a fine presentation by Lisa Dierker on the inquiry-based and supportive approach to learning statistics that she and her colleagues at Wesleyan University have developed. The presentation led to a lively discussion.

After lunch, the group discussed approaches to establishing and assessing learning goals in statistics courses. The final discussion focused on favorite websites for teaching statistics. There was general agreement among the participants that the day had been a great success!

NEISM16 was organized by Bob Goldman at Simmons College and John McKenzie at Babson College. Our host at Emmanuel was Yulia Dementieva.

The organizers are already thinking about NEISM17. It will likely be held on November 3, although that date has not been finalized. If you would like more information about NEISM please contact either Bob Goldman at <u>robert.goldman@simmons.edu</u> or John McKenzie at <u>mckenzie@babson.edu</u>.

#### page 14

## BCASA Treasurer's Report: 2011

Income		<u>Assets*</u>	
Membership - ASA Short courses, Events	\$3,561.00 \$8,430.06	Bank Accounts CDs	\$ 20,940.21 \$ 23,033.93
TOTAL INCOME	\$11,991.06	TOTAL ASSETS	\$ 43,974.14
<u>Expenses</u>			
Short courses and events Planning Committee	\$13,541.60 \$924.59		
TOTAL EXPENSES	\$14,466.19		
<u>NET GAIN (2011)</u>	-\$2475.13		

\* As of February 17, 2012

## JOB ANNOUNCEMENTS

#### Statistician, Healthcare Analytics division, Wolters Kluwer

Candidates who may be qualified could apply to the following link:

#### http://www.wolterskluwer.apply2jobs.com/ProfExt/index.cfm?fuseaction=mExternal.showJob &RID=7004&CurrentPage=1

Wolters Kluwer is a market-leading global information services company. Professionals in the areas of legal, business, tax, accounting, finance, audit, risk, compliance, and healthcare rely on Wolters Kluwer's leading, information-enabled tools and solutions to manage their business efficiently, deliver results to their clients, and succeed in an ever more dynamic world. The Analyst will be responsible for the planning, development, implementation, quality, and effectiveness of the assigned Custom Analytics projects.

#### Job Responsibilities

- Develop and conduct quantitative and statistical analyses across multiple therapeutic areas, primarily with the Wolters Kluwer Health data assets.

- Assist in the development and implementation of analytics assets and capabilities to create better customer satisfaction and revenue generating opportunities.

- Provide solutions to complex business issues by identifying and providing superior analyses and reasoned solutions based on the integration of a variety of data sources (including Patient-Level Data, Dynamic Claims, SourceRx, etc.)

- Synthesize business information and data from a variety of data sources to make available business intelligence for our clients' brand and sales leadership for knowledge-based decision making.

- Present quantitative methodologies and statistical analyses to internals and to clients as needed.

- Provide innovative approaches to meet our clients' objectives using appropriate analytical frameworks.

- Drive improvements in effectiveness and efficiency of Wolters Kluwer Health's selling and marketing processes through utilization of innovative analytical techniques.

- Drive objectivity and data-based decision making into the operating culture, and utilizes functional mastery and business knowledge to consistently challenge and improve business ideas, processes, and recommendations.

- Is aware of, and uses, public domain data (e.g., CDC, BLS, Census) and other non-pharma data (e.g., Nielsen, MRI) to improve analytical rigor of relevant projects and products.

- Provide expertise to other groups within the company in research design and methodology.
- Mentor and support junior analysts.
- Responsible for actual design of projects to meet client requirements.

- Responsible for extracting data and/or query databases for more in depth research or basic Ad Hoc requests.

- Responsible for writing complex and relational SAS procedures or SQL queries.
- Provide input on development of UAT test plans.
- Review and approve QA testing results.
- Execute UAT test, document results and report on outcome.

#### Minimum Requirements

- M.S. degree in statistics or quantitative field or equivalent required.

- 2 years of applied work in addition to education-experience in business analytics, statistical/econometric analysis, multivariate testing, and statistical programming.

- Proficiency with an array of statistical techniques, including: Multivariate Statistical Analysis; Experimental Design; Time-Series Analysis; Survival Analysis; Cluster Analysis and Segmentation; Mixed-Effects Models; Missing-Data analysis.

- Experience with various modules in SAS (BASE, STAT, MACRO, GRAPH, ETS).

- Proficiency with SQL.

- Demonstrated expertise with advanced statistical tasks (regression, model building, cluster /segmentation analyses, etc.).

#### Preferred Requirements

- Ph.D. a plus.

- 2-5 years experience in a healthcare related industry with emphasis on data analysis, data integration and quality assurance.

#### About Wolters Kluwer

Wolters Kluwer is a market-leading global information services company. Professionals in the areas of legal, business, tax, accounting, finance, audit, risk, compliance, and healthcare rely on Wolters Kluwer's leading, information-enabled tools and solutions to manage their business efficiently, deliver results to their clients, and succeed in an ever more dynamic world.

Wolters Kluwer has 2009 annual revenues of  $\in 3.4$  billion (\$4.8 billion/£3.0 billion), employs approximately 19,300 people worldwide, and maintains operations in over 40 countries across Europe, North America, Asia Pacific, and Latin America. Wolters Kluwer is headquartered in Alphen aan den Rijn, the Netherlands. Its shares are quoted on Euronext Amsterdam (WKL) and are included in the AEX and Euronext 100 indices.

Visit our website, YouTube or follow @Wolters\_Kluwer on Twitter for more information about our customers, market positions, brands, and organization.

Wolters Kluwer offers a competitive compensation and benefit package including 4-weeks of paid time off (1st year), 12 paid holidays, and a generous profit sharing program.

We are an equal opportunity employer and committed to a diverse workforce.

#### Contact Person

Sherry Baker, Recruiting Consultant Wolters Kluwer Staffing Toll Free: 866-682-7138 Direct: 386-313-6214

Email: <u>Sherry.Baker@wolterskluwer.com</u>

Website: http://www.wolterskluwer.apply2jobs.com/

#### Supervisory Statistician Position in Gloucester, MA

This only open to current or former federal employees ("Status Candidates").

#### http://www.usajobs.gov/GetJob/ViewDetails/310942300

The successful applicant will:

\* Develop and manage an integrated fishery statistics data analysis program to meet the biological, economic, and sociological statistical information needs of the Northeast Regional Office.

\* Perform the full range of supervision over a diverse workgroup.

\* Perform basic or applied research and/or algorithms, computational methods, problem analysis, development and evaluation of software and advisory consultation for scientific computing in areas such as linear and nonlinear regression, analysis of variance, statistical graphics and probability distributions.

\* Respond to public inquires concerning data estimates and statistical methodologies.

\* Design, implement and maintain fisheries information systems which provide data used to analyze socio-economic, biological, and operational effects to determine effective management and conservation regimes.

BCASA OFFICERS	
President	Tom Lane MathWorks
Past President	Dominique Haughton Bentley University
Program Chair	Vacant
Vice-President	Vanessa Xanthakis Boston University
Secretary	Sachiko Miyahara Harvard School of Public Health
Treasurer	Huichao Chen Harvard School of Public Health
Chapter Representative	James MacDougall Ironwood Pharmaceuticals
Webmaster	Ching-Ti Liu Boston University
BCASA COMMITTEE CHAIRPERSONS	
Membership	Vacant
Mu Sigma Rho	Liam O' Brien Colby College
BCASA NEWSLETTER	
Editor	Stan Morse University of Massachusetts Boston
Managing Editor	Vanessa Xanthakis Boston University
Program Announcements	Tom Lane MathWorks Ching-Ti Liu Boston University
Circulation Manager	Rui Wang Harvard School of Public Health

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