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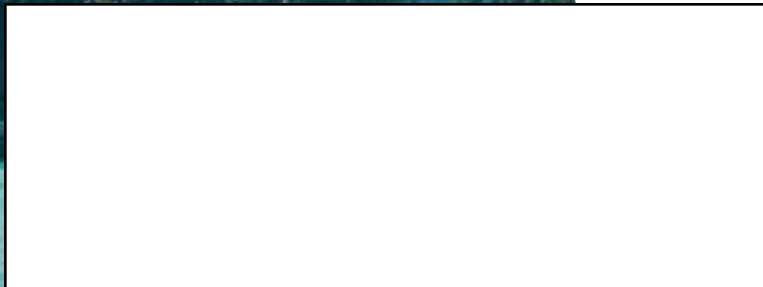
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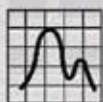
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Executive Director

Ron Wasserstein: ron@amstat.org

Associate Executive Director and Director of Operations

Stephen Porzio: steve@amstat.org

Director of Science Policy

Steve Pierson: pierson@amstat.org

Managing Editor

Megan Murphy: megan@amstat.org

Production Coordinators/Graphic Designers

Melissa Muko: melissa@amstat.org

Kathryn Wright: kathryn@amstat.org

Publications Coordinator

Val Nirala: val@amstat.org

Advertising Manager

Claudine Donovan: claudine@amstat.org

Contributing Staff Members

Amy Farris • Rebecca Nichols • Eric Sampson

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American Statistical Association
732 North Washington Street
Alexandria, VA 22314-1943 USA
(703) 684-1221 • FAX: (703) 684-2037

ASA GENERAL: asainfo@amstat.org

ADDRESS CHANGES: addresschange@amstat.org

AMSTAT EDITORIAL: amstat@amstat.org

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The American Statistical Association is the world's largest community of statisticians. The ASA supports excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Our members serve in industry, government, and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare.

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- 18 **SCIENCE POLICY**
Data Synchronization: Leveraging Existing Business Data to Better Measure the Economy

This column is written to inform ASA members about what the ASA is doing to promote the inclusion of statistics in policymaking and the funding of statistics research. To suggest science policy topics for the ASA to address, contact ASA Director of Science Policy Steve Pierson at pierson@amstat.org.



Pilot

Contributing Editor

Adrienne Pilot is director of the statistical office at the Council of Economic Advisers. Previously, she held positions with the Office of Management and Budget's Office of Statistical and Science Policy and the Bureau of Economic Analysis.

- 21 **MASTER'S NOTEBOOK**
On Being a Fresh Grad

This column is written for statisticians with master's degrees and highlights areas of employment that will benefit statisticians at the master's level. Comments and suggestions should be sent to Keith Crank, ASA research and graduate education manager, at keith@amstat.org.



Barbo

Contributing Editor

Andrea Barbo is a research associate at Georgetown University Department of Oncology. Her interests are statistical programming and data analysis in cancer research.

Online Articles The following articles in this issue can be found online at <http://magazine.amstat.org>.

The San Francisco Bay Area Chapter inaugurated a two-day workshop for Bay Area AP Statistics teachers August 11 and 12 at Carlmont High School in Belmont. Feedback on the workshop was unanimously positive. Visit <http://magazine.amstat.org/blog/2011/11/01/bayareanov11> to find out how they did it and how your chapter can host a workshop for area AP Statistics teachers.

The Federal Committee on Statistical Methodology 2012 Research Conference will be January 10–12, 2012, at the Walter E. Washington Convention Center in Washington, DC. Sessions will feature papers and demonstrations authored by government, private sector, and academic researchers from six countries. All sessions will include an open discussion, and some sessions will include a formal discussion. Papers will be made available at www.fcs.gov following the conference. For a copy of the advance program and registration information, visit www.fcs.gov/events. For details, visit <http://magazine.amstat.org>.

The Royal Statistical Society presented the Guy Medal in Gold to Calyampudi Radhakrishna Rao on June 29. Rao also was awarded an honorary Doctor of Science degree from the University of Colombo in Sri Lanka. For details, visit the People News for November at <http://magazine.amstat.org/?cat=19>.

Eric D. Schoen received the 2011 Lloyd S. Nelson Award for his paper, "Optimum Designs Versus Orthogonal Arrays for Main Effects and Two-Factor Interactions," published in the April 2010 issue of the *Journal of Quality Technology (JQT)*. This award, created in honor of the founding *JQT* editor, recognizes the *JQT* article from the previous year of "greatest immediate impact to practitioners." For details, visit the People News for November at <http://magazine.amstat.org/?cat=19>.

The September issue of JASA features two articles presented and discussed at the 2011 Joint Statistical Meetings: "Adaptive Confidence Intervals for the Test Error in Classification," by Eric Laber and Susan Murphy, and "Population Value Decomposition: A Framework for the Analysis of Image Populations," by Ciprian Crainceanu, Brian Caffo, Sheng Luo, Vadim Zipunnkov, and Naresh Punjabi. View the full list of articles and a list of the books under review at <http://pubs.amstat.org/loi/jasa> or read the highlights of the September issue at <http://magazine.amstat.org>.

A New ASA interest group, Statistics in Mental Health Research (SMHR), was formed in June to help communicate and facilitate further advancements for the mental health field. Further information about SMHR is available at www.healthstats.org/smhr. For details and information about how to join, visit <http://magazine.amstat.org>.

The University of Alabama at Birmingham's (UAB) Section on Statistical Genetics announces a short course, Next-Generation Sequencing: Technology and Statistical Methods, on December 13–16 at UAB in Birmingham and HudsonAlpha Institute for Biotechnology in Huntsville, Alabama. For details, visit <http://magazine.amstat.org>.

columns



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STATtr@k is a column in *Amstat News* and a website geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. To read more articles like this one, visit the website at <http://stattrak.amstat.org>. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, *Amstat News* managing editor, at megan@amstat.org.



Contributing Editor

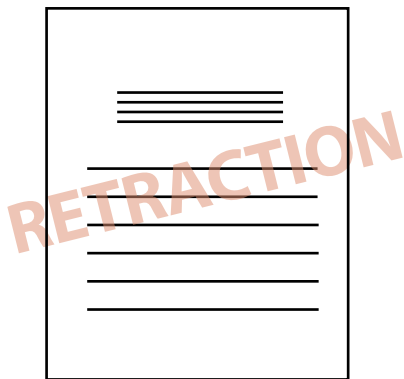
John Johnson is the associate director of statistics at REGISTRAT-MAPI, a late-phase clinical research organization.

Johnson

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Beware the Fabulous!



Recently, I heard an interesting public radio program on Science Friday called “If Science Takes a Wrong Turn, Who Rights It?” (www.npr.org/2011/08/05/139025763/if-science-takes-a-wrong-turn-who-rights-it). Host Ira Flatow interviewed Ivan Oransky, an executive editor for Reuters Health who contributes to the blog Retraction Watch (<http://retractionwatch.wordpress.com>), and R. Grant Steen, president of Medical Communications Consultants and a former professor of psychiatry at The University of North Carolina at Chapel Hill.

The question addressed was whether science is as good in correcting itself as we would like it to be. The first criterion for reliability is that the result is published in a journal; the vast majority of published articles are reliable. But, science is evolving and should be self-correcting.

There are more journals today than ever before. Thus, there is a larger body of scientific literature, but the same number of reviewers, so many errors are not caught during the review process. *Science* and *Nature*, the most prestigious journals in the basic sciences, have the greatest number of retractions. (They also publish more papers than other journals.)

A recent related article in *Nature*, “Science Publishing: The Trouble with Retractions” (www.nature.com/news/2011/111005/full/478026a.html), noted a 10-fold increase in the number of retractions over the past decade, while the number of published articles had risen by only 44%.

Retraction notices for published papers covered by the web of science have increased from 0.001% of the total to 0.02%, so one could say the problem is very small indeed. The fact that ‘retraction’ is often associated with fraud may make authors less likely to admit errors, so the number of retractions reported might underestimate the number of erroneous papers.

As best as can be determined, just over half of retractions in the past 10 years are for fraud (and most of these involve plagiarism). Most of the remainder are for honest errors or irreproducible results, although it is difficult to tell because retraction notices are often uninformative. This may be due to fear of suit for libel by publishers or the work it would take to determine the cause of the errors.

One participant in the Science Friday program said he thought no paper was entirely error free, but that most errors were trivial.

Assuming that most statisticians are honest, I wondered how we statisticians fared with regard to corrections. I took a brief (and clearly nonrandom) look at two years of *JASA* (September 2010 to June 2011 and the same issues for 2001 to 2002). I found four corrections and two letters to the editor in the recent year and four corrections and three letters in the earlier year. (Letters also may point out errors.)



Nancy Geller

The corrections were mainly small errors (several typographical), but in the earlier year, one corrected a wrong theorem and authors replaced a section due to notational problems in another. That appears to be a tiny number of errors, none making newspaper headlines. The statistical literature might be well refereed and self correcting, but a more formal study would be needed to demonstrate that.

Yet we should not be so sanguine as to believe bad errors are not going to happen to us. Many of us are involved in collaborative research in which each author contributes but a small part to the project. Sometimes, results seem fabulous, and it is easy to believe a fabulous result if you are part of the collaboration, but this is a time you should be especially skeptical.

The retractions that make headlines are those involving reports of fabulous discoveries, sometimes with consequences that are far reaching. One example is the microarray-based signatures of drug sensitivity derived from cell lines that were used to predict patient response to cancer drugs. The scientific community found the results impressive: Many years of genetic research had yielded something that appeared to be useful in the clinic. But, the analysis methods were flawed and the results could not be reproduced. Clinical trials were already under way when the errors were detected. (See, for example, www.nytimes.com/2011/07/19/health/19gene.html?_r=1&scp=1&sq=Baggerly&st=cse.)

Another example is a paper that reported genetic factors for longevity, but had to be retracted because the centenarian and control subjects were analyzed using different genetic platforms without proper adjustment in the statistical analysis. (See www.nature.com/news/2011/110721/full/news.2011.429.html.)

The combination of team science and competition—whether for research funding, fame, or an adrenaline surge—may lead us down paths we later regret. One should beware of results that are fabulous, especially if they are one's own.

Nancy L. Geller

Martha Aliaga: A Wonderful and Remarkable Colleague



Martha Aliaga

With great sadness, the American Statistical Association informs its members of the death of Martha Aliaga, the ASA's director of education. Martha passed away Saturday, October 15, surrounded by her family.

Martha joined the ASA in August of 2003 and, as the director of education, created the Educational Ambassadorship Program, Meeting Within a Meeting for statistics K–12 teachers, and STEW—a peer-reviewed repository of lesson plans for statistics K–12 teachers. She also introduced Census@School in the USA.

In the April 2003 issue of *Amstat News*, Martha said she was attracted to the position of director because of the number of people she could help through the ASA. "I always thought I was successful as a teacher," she said, "but I could only help one student at a time."

Prior to coming to the ASA, she was associate professor in the department of statistics at the University of Michigan. She was the 2002 president of the Caucus for Women in Statistics, an elected council member of the International Statistical Institute, and a Fellow of the ASA.

As ASA Executive Director Ron Wasserstein noted, "We have lost a wonderful and remarkable colleague, and our sense of loss is great, but great also is our sense of privilege to have known and worked with her."

An in-depth memorial will be included in the December issue of *Amstat News*. If you wish to send Martha's family a letter of condolence, please send it to the ASA Office, in care of The Aliaga Family, 732 North Washington Street, Alexandria, VA 22314 and we will forward it. Memorial gifts toward a scholarship fund in Martha's name would be deeply appreciated by the family. Contributions may be made to the ASA for this fund.

Friends of Australasia Creates Statistics Workshop Series in Pacific Islands



Delegates of the International Conference for Health Statistics in the Pacific Islands gather during a break between sessions.

Australasia comprises 35 million people in Australia, New Zealand, and the Pacific Islands. Some of these nations have thriving statistics communities, while statisticians in others are working to establish theirs. In November of 2010, members of the American Statistical Association launched Friends of Australasia (FoA), an outreach group with the broad objective of facilitating communication and collaboration between ASA members and members of various Australasian statistics communities.

One way in which FoA members have striven to meet this objective is by establishing a conference series. The first of these conferences, the International Conference for Health Statistics in the Pacific Islands (ICHSPI) was held in Fiji from July 5–8.

FoA co-chairs Mark Griffin of the University of Queensland and James Cochran of Louisiana Tech University served as conference chair and program chair, respectively. ICHSPI was divided into an introductory stream for clinical researchers seeking to develop a solid foundation in statistics and an advanced stream for statisticians in the region who are eager to enhance their statistical skills through contact with renowned members of the international statistics community.

The introductory stream featured workshops on the role of statistics in research and society, basics of statistical inference, an introduction to linear regression, fundamentals of clinical trials, handling data with spreadsheets, beginning design of experiments, basics of panel data, graphs and displays of data, and an introduction to logistic regression.

Workshops featured in the advanced stream included mixed effects and clustered data, applied multivariate statistical analysis, operations research/constrained optimization, basic environmental epidemiology, effective communication of designs and results, operations research/mathematical programming, and introductory survey sampling. Seminars in which specific applications were discussed by researchers were also a major component of both streams.

In addition to Griffin and Cochran, the list of speakers included Grazyna Badowski (University of Guam), Chris Barker (Statistical Planning and Analysis Services, Inc.), Steve Bowe (Centre for Behavioural Research in Cancer, The Cancer Council of Victoria, Australia), Dongseok Choi (Oregon Health and Science University), Jeremy Dorovolomo (University of the South Pacific, Suva, Fiji), Justin Fisher (U.S. Government Accountability Office),

Communicate, Collaborate

Friends of Australasia use an email list to increase communication and collaboration. The list provides an opportunity for statisticians in various Australasian countries to reach out to each other and facilitates communication between Australasian statisticians and statisticians throughout the rest of the world. To add your name to this list and receive regular emails about FoA activities, see http://community.amstat.org/Friends_of_Australasia/Join1.

Mary W. Gray (American University Department of Mathematics and Statistics), Jodi Lapidus (Department of Public Health and Preventive Medicine, Division of Biostatistics at Oregon Health & Science University), Karuna Reddy (University of Fiji Saweni Campus, Lautoka, Fiji Islands), Duncan Thomas (University of Southern California Keck School of Medicine), Ian Westbrooke (New Zealand Department of Conservation), Lynne Wilkens (University of Hawaii Cancer Center), Marcy Winget (Alberta Health Services and the School of Public Health, University of Alberta), Peter Wollan (Olmsted

Medical Center), and Yutaka Yasui (University of Alberta Department of Public Health Sciences).

ICHSPI attracted 50 delegates from the Pacific Islands and 15 from Australia, New Zealand, and the United States. As the first conference in this series, it was groundbreaking with respect to bringing together statisticians, health professionals, and associated researchers and staff. The conference established a strong foundation upon which FoA and the Pacific Islands statistics communities can build.

Plans for the next conference—to be held in Madang, Papua New Guinea, in July 2012—are well under way. However, the conference was renamed the Joint Oceanic Conference for Statistics and Information Systems (JOCSIS) to reflect the broader scope of future FoA conferences. For details about 2012 JOCSIS, including how to get involved, visit http://community.amstat.org/friends_of_australasia or email Griffin at m.griffin@adasis-oz.com or Cochran at jcochran@latech.edu.

This conference series is jointly organized by members of the FoA, Statistics Without Borders, the Statistical Society of Australia, the Australian Development Agency for Statistics and Information Systems, and the New Zealand Statistical Association. ■

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Team Dreams and Dream Teams

Xiao-Li Meng, Whipple V. N. Jones Professor of Statistics and Department Chair, Harvard University

Twenty-five years ago, my PhD cohort at Harvard Statistics consisted of four students, taught by five ladder faculty. The overall course enrollment was about 300, and the combined number of concentrators (majors) and master's students was a single digit. Today, both the faculty and PhD cohort sizes have doubled, the numbers of concentrators and master's exceed 50 and 20, respectively, and the total enrollment reached almost 2,000.

"So, what's the big deal?" you may wonder, "the growth in my department is even faster than yours!" Exactly—that's the big deal. The statistics discipline is no longer perceived as "mathematics lite" or "accounting poor," but as a field that generates headlines such as "For Today's Graduate, Just One Word: Statistics" (*New York Times*, August 5, 2009). As a profession, our team dream to establish statistics as a visible, viable, and vital scientific discipline is largely realized. Our next team dream—that principled statistical thinking and reasoning becoming part of the routine vocabulary of a civilized society—will require substantially more dream teams. Heroic individual effort is always great inspiration, but teamwork is essential to achieving and sustaining societal accomplishments.

David Pickard was such a heroic individual, particularly with regard to undergraduate education. To honor him, a memorial fund was established in 2010 by a group of alumni under the leadership of Victor Solo, a Harvard colleague of Pickard's. The fund document summarizes well its purposes (for its inauguration and media coverage, see http://stat.harvard.edu/?mode=Pedagogy&page=Pickard_Lecture.html):

The gifts of colleagues, students, and friends of David Pickard establish the David K. Pickard Memorial Endowment Fund. This fund celebrates the memory of David K. Pickard, who served as a junior faculty member in the Harvard Statistics Department from 1977 to 1985. Professor Pickard was known for his outstanding teaching, having won two major Harvard-wide teaching awards: the Phi Beta Kappa Prize in 1982 and the Levenson Prize in 1984. He also won the Hoopes Prize two years in a row for supervising and nominating a senior thesis. Professor Pickard had a strong influence on the statistics PhD students at Harvard in that period. Sadly, Professor Pickard died of a



From Left: Michael Parzen, Kevin Rader, David Harrington, and Joseph Blitzstein, core members of Dream Team

brain tumor in August 1986 in Kingston, Ontario, where he had moved after leaving Harvard.

Happily, we now have a dream team to enhance Pickard's mission. David Harrington, our codirector of undergraduate studies (DUS) and recipient of the Roger Nichols teaching award at Harvard Public School of Health, has played a critical role in revamping our undergraduate program. So has Joseph Blitzstein, the other DUS. Like Pickard, Blitzstein won the Phi Beta Kappa Prize (2009) and Levenson Prize (2011) and is a household name among Harvard students (Google "Stat 110 at Harvard" on YouTube). It is therefore extremely fitting that Blitzstein received the inaugural David Pickard Memorial Award and was appointed Harvard Statistics' first full professor of practice on July 1.

Michael Parzen, Harvard Statistics' first senior lecturer, and Kevin Rader, its first preceptor, brought the necessary critical mass for a dream team. Parzen joined in 2010 with a stellar 17-year record of teaching MBAs, a challenging group of students to teach. Rader, a winner of the Pickard Teaching Fellow Award, has been instrumental in carrying out much of the behind-the-scenes work, from training teaching fellows to assisting in course administration.

The dream team will expand via an open-field and open-rank cluster hiring (see www.stat.harvard.edu). The inaugural Pickard award citation summarizes what we are looking for: *a clearly wonderful scholar and mentor and a wonderfully clear teacher and communicator.* ■

Meet NCSES Director Lynda Carlson

Amstat News invited Lynda Carlson, director of the National Center for Science and Engineering Statistics (NCSES), to respond to the following questions so readers could learn more about her and the agency she leads. Look for other statistical agency head interviews in past and forthcoming issues.

Working at NSF has been an incredible experience. The foundation is dynamic, nimble, and incredibly supportive of both its staff and programs.



Lynda Carlson earned her PhD in political science from the University of Illinois and has been NCSES director since February of 2000. Before then, she was the director of the Statistics and Methods Group Energy Information Administration at the U.S. Department of Energy.

What have you enjoyed most about being head of NCSES?

Leading redesigns of NCSES data collection and analysis programs to expand and improve data and products on the science and engineering (S&E) enterprise. I have especially enjoyed challenges allowing me to think outside the box to meet needs of a broad and expanding spectrum of users. An example was NCSES's effort—in collaboration with the Office of Management and Budget, U.S. Census Bureau, and others—to add a Field of Degree (FOD) question to the American Community Survey (ACS) in 2009. The new question not only has significant benefits to NCSES—a far more efficient sampling frame for the National Survey of College Graduates (NSCG) and annual ACS data

on the inflows of foreign scientists into the United States—but also provides a rich new source of data for other users, including other statistical agencies.

Working at NSF has been an incredible experience. The foundation is dynamic, nimble, and incredibly supportive of both its staff and programs.

What do you see as the biggest challenge(s) for NCSES, and have they changed significantly since you started this position?

The biggest challenge will be maintaining a continuous quality improvement process for NCSES surveys, analyses, and methodology in a period of declining resources. An ongoing problem for NCSES is the number of staff. During my 11 years at NCSES, while the center's responsibilities and budget have increased dramatically (the budget more than doubled), staffing levels have increased. The small size of the staff limits the amount of analysis we can do of our own data, the pace at which we can implement new activities and improvements in existing ones, the timeliness of release of our data, and the extent of oversight of survey contractors (all NCSES surveys are conducted by contractors or the Census Bureau). Timeliness is, of course, a challenge for all statistical agencies, but particularly so for an agency such as NSF that

is so constrained by staff size. What has changed significantly is the quality of NCSES staff. I am confident the highly qualified, experienced, and dynamic NCSES staff will handle these challenges in a highly professional and creative manner.

Describe your top two or three priorities for NCSES.

In December 2010, legislation changed the name of the organization from the Division of Science Resources Statistics (SRS) to the National Center for Science and Engineering Statistics (NCSES) and broadened the organization's mandate, which were changes NSF and SRS had initiated. NCSES's responsibilities were expanded in three major areas: (1) producing the data and analyses necessary to examine U.S. competitiveness in science and engineering, (2) collecting enhanced data on the condition and progress of U.S. STEM education, and (3) support of research. A major priority in the near future is responding to these expanded responsibilities, a challenge in light of constrained financial and staff resources. Another priority is completing the development phase and beginning full-scale implementation of three major projects—the Early Career Researchers (post-docs) Data Collection activity;

the Microbusiness Innovation, Science, and Technology Survey; and an innovation module for the Business R&D and Innovation Survey (BRDIS).

What do you see as the role for the broader statistical community in supporting NCSES?

Our updated enabling legislation expanded NCSES's mission to include support of research using the data we collect, research on methodologies in areas related to our work, and educating/training researchers in the use of large-scale, nationally representative data sets. We will look to the broader federal statistical community to devise approaches to implement those responsibilities.

To augment our limited in-house staff, we have established a series of external arrangements for statistical/methodological support of possible interest to other small statistical agencies. Through the National Agricultural Statistics Service, we have a long-standing cooperative agreement with Washington State University and a new one with the University of Nebraska. These provide access to outstanding survey methodologists, who have provided invaluable assistance in (re)designing NCSES surveys. We now are funding several postdocs at the National Institute of Statistical Sciences, who provide additional resources to tackle methodological/statistical issues. We would like to establish additional arrangements with statisticians to help us address our expanded responsibilities.

What do you see as the biggest accomplishment of the agency during your tenure?

Most important is the institution of a continuous improvement process for all NCSES activities. This led to the science policy community's recognition of NCSES's

critical role and the quality of its products, which in turn led to the transformation of SRS into NCSES. Other accomplishments, all manifestations of the first, are the following:

—Development of BRDIS, which is producing incredible, important new data in partnership with the Census Bureau

—Addition of the FOD question onto the ACS with its attendant benefits

—Transformation of the congressionally mandated biennial Science and Engineering Indicators (SEI) report to include a new Digest, which is a highly interactive document with interactive databases on a key indicators (the model

Fast Facts

Part of the National Science Foundation's Directorate for Social, Behavioral, and Economic Sciences

Website: www.nsf.gov/statistics

FY11 budget: \$41.2 million

Staff size: 47


developed for the SEI Digest has since been implemented in two other Digests)

—The establishment of a Survey Sponsor Data Center (the first) located at NSF (December 2011) that will allow NCSES staff to work with NCSES funded/Census-collected NSCG and BRDIS onsite in collaboration with the Census Bureau ■

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WANTED: Manager of Surveys and Graduate Education

The American Statistical Association is seeking qualified applicants to fill a Manager of Surveys and Graduate Education position. The duties of this dynamic individual include the following:

- Develop and execute surveys conducted by the ASA
- Serve as a member of a team of staff and volunteers
- Tackle the challenges of improving statistical education at the graduate level
- Assist in the administration of the ASA's accreditation program
- Solicit, propose, and manage ASA grants related to graduate education and research matters
- Work with appropriate ASA constituencies and entities to develop grant requests
- Ensure production of appropriate publicity pieces as needed, including columns for *Amstat News*
- Prepare periodic reports on activities of the graduate education programs and results of surveys
- Prepare and submit budgets within the responsibilities of this position
- Serve as a resource for members, staff, and the community in the field of surveys and graduate education in statistics

Candidates should have an advanced degree in statistics (PhD preferred), with specific expertise in survey methodology and a minimum of five years of experience. Familiarity with working with academic departments of statistics and grant development would be considered a major plus. Successful candidates will demonstrate the ability to effectively collaborate and manage multiple processes and projects. Excellent interpersonal skills and strong oral and written communication skills are required.

Excellent benefits include health, dental, and vision insurance; 401(k); tuition reimbursement; and subsidized public transportation. Candidates should submit a letter of application, including salary history and résumé. All materials should be emailed to lynn@amstat.org or mailed to Human Resources-Surveys/Graduate Education, American Statistical Association, 732 North Washington Street, Alexandria, VA 22314.

The American Statistical Association is an Equal Opportunity Employer.

Submission Process for ASA Journal Manuscripts Changes

As you may know, the ASA recently partnered with Taylor & Francis to publish the *Journal of the American Statistical Association*, *Journal of Business & Economic Statistics*, *Journal of Computational and Graphical Statistics*, *Statistics in Biopharmaceutical Research*, *The American Statistician*, and *Technometrics* beginning in 2012.

A large part of this transition will be moving from the ASA's current manuscript submission system, Allentrack, to ScholarOne. You can learn a great deal about ScholarOne by checking out the online tutorials at <http://mcs3help.manuscriptcentral.com/stalkjddfesdl/MC4Help.htm> or frequently asked questions at <http://mchelp.manuscriptcentral.com/gethelpnow/index.htm>.

Though no new manuscripts will be accepted on the Allentrack sites, those already there will complete the review and acceptance process on Allentrack. Once all papers have been cleared from Allentrack, those sites will cease operation.

Editors Wanted

The ASA is in search of editors and co-editors for seven journals. If you or someone you know is interested in helping shape the direction of these publications, please visit the following websites:

Journal of the American Statistical Association,
Applications and Case Studies Editor
http://pubs.amstat.org/page/JASA_Search

Journal of Business & Economic Statistics,
Co-Editors
http://pubs.amstat.org/page/JBES_Search

Journal of Computational and Graphical Statistics,
Editor
http://pubs.amstat.org/page/JCGS_Search

Technometrics, Editor
http://pubs.amstat.org/page/Tech_Search

Journal of Statistics Education, Editor
http://pubs.amstat.org/page/JSE_Search

Journal of Nonparametric Statistics, Editor
http://pubs.amstat.org/page/JNPS_Search

Statistical Analysis and Data Mining, Editor
http://pubs.amstat.org/page/SAM_Search

Each new editor's term will run from 2013–2015, with a transition period beginning in mid-2012. ■

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Tests: Tests on Contingency Tables, Correlation tests, Parametric tests for comparison of two samples (F, t, z, Levene, Bartlett), Comparison of two proportions, Non parametric Tests on two independent samples (Kolmogorov-Smirnov, Mann-Whitney, Wilcoxon) or two paired samples (Wilcoxon's signed-ranks test and the sign test), Non parametric Tests on k independent samples (Kruskal-Wallis' test) or k paired samples (Friedman's test), Goodness of fit tests after distribution fitting (Chi-square, Kolmogorov-Smirnov), Normality tests, Cochran-Armitage trend test, Cochran Q test, McNemar's test, Runs test... **Visualizing data:** Excel charting utilities, Plot transformers, Scatter plots, Parallel coordinates... Complementary modules include **Survival Analysis, Monte Carlo simulations and risk analysis, Time series analysis, Sensory data analysis, PLS Path modeling...**

CHANCE Features Expert Testimony in Human Rights Trial Based on Statistical Sampling

Sam Behseta, CHANCE Executive Editor

The lead article in Volume 24, Issue 3 is a remarkable account by statistician **Daniel Guzmán**, who, in 2010, testified as an expert witness in Guatemala during a case involving two former police agents accused of violently disappearing a Guatemalan union activist in 1984. Guzmán and his coworkers used multi-stage sampling methods to select relevant documents—worthy of court presentation—from millions of scattered pieces in the Guatemalan National Police archives. The sampled materials also were used to verify the authenticity of a separate set of documents directly related to the case. The court's ruling, which resulted in the conviction of the involved police forces, is not only a triumph for human rights, but also a reflection of the crucial role statisticians can play in serving justice globally.

Also in this issue, we cover three articles about sports. First, **Michael Rutter** gives a simple Bayesian model for ranking NCAA women's hockey teams. The forte of Rutter's proposal is that two seemingly complex parameters, namely the ties and home advantage, can be delicately taken into account in the ranking algorithm. Second, **David McCarthy** uses another Bayesian model to estimate the uncertainty associated with professional tournament scores in bowling, bowler abilities, and tournament difficulties. Finally, **Johan Bring** and **Marcus Thuresson** lay out an argument in defense of the now obsolete two points for a win system, as opposed to the current three points in the European soccer leagues. Using simulation studies and data obtained from the Spanish league La Liga, the authors show the old system would have resulted in fairly relegating teams to the second division and deservedly qualifying better regional teams for the much-celebrated European cup competition.

Jimin Ding and colleagues showcase an application of functional data analysis in characterizing the dominating features of uncertainty of data obtained from actigraphy, an emerging technology for measuring sleeping patterns and circadian activity rhythms.

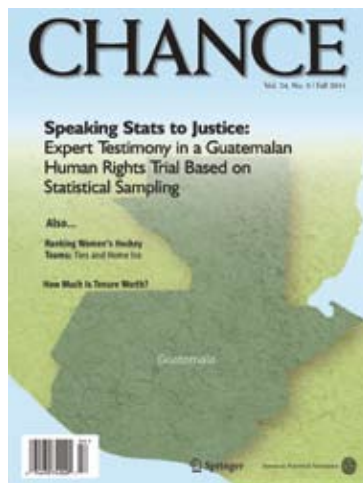
Rebecca Trempel, **Sergey Kyrychenko**, and **Matthew Moore** apply a Poisson regression model to gauge the effect of banning hand-held cellular

phones while driving on the insurance claims of car collisions in California, Connecticut, New York, and the District of Columbia. The primary outcome of the study finding—that no significant evidence in the decrease in crash risk after cell-phone laws went into effect—is somewhat counterintuitive. The authors provide a partial justification.

In this installment of Visual Revelations, **Howard Wainer** articulates support for teacher tenure. This is in sharp contrast to the cliché that granting teachers tenure saves money for the participating states. With the aid of a simple graphical tool, Wainer demonstrates the swelling ratio of superintendent-to-teacher salary in New Jersey after the 1991 decision in that state resulted in tenure for superintendents being abolished.

In O Privacy, Where Art Thou?, **John Abowd** and **Lars Vilhuber** continue the discourse started in the previous column by Stephen Fienberg about the many facets of privacy, confidentiality, disclosure, and harm. In addition to stressing the wide-ranging benefits of sharing data with public agencies, the authors accentuate a need for the participation of a larger community of researchers as novel methods of data sharing are streamlined.

I am pleased to announce two new members of the editorial board: **Shane Jensen** from the University of Pennsylvania will be writing A Statistician Reads the Sports Pages and **Christian Robert** from Université Paris-Dauphine will write book reviews. ■





Innovations and Best Practices for the Applied Statistician

Inaugural American Statistical Association Conference on
STATISTICAL PRACTICE

First Annual ASA Conference on Statistical Practice in February

Philip Scinto

Over the past nine months, members of the Conference on Statistical Practice organizing and conference committees have envisioned and worked toward a conference focused on the needs of applied and consulting statisticians concerned with urgent problems, issues, and systems for clients and organizations to improve processes, products, and decisions. That vision will become a reality from February 16–18, 2012, as the first ASA Conference on Statistical Practice takes place in Orlando, Florida.

The conference program and suite of courses and tutorials are complete. In addition, the volume and quality of poster abstract submissions has been outstanding. Feel free to let your curiosity get the better of you and check out the program at www.amstat.org/meetings/csp/2012. Better yet, register for the conference and sign up for courses.

The housing deadline is January 16, 2012, and the conference registration deadline is January 31, 2012. Our goal is to maintain a cozy, intimate, and personal feel to the conference, so register early, before all of the conference spots and courses are filled.

There is one favor we would like to ask those of you who attend. Keep in mind that this conference is for you. When you are in a course or attending a session, do not shy away from asking how the work presented is applied and how it can help you be a better statistical practitioner. We also urge you to attend the closing session on February 18 to tell us how we can improve the conference.

We are delighted to be a part of something special. Please come join us at the Renaissance Orlando at SeaWorld!

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REGISTRATION FORM

INSTRUCTIONS

1. Print or type all information and retain a copy for your records.
2. Use a separate form for each registrant.
3. Mail form with payment to CSP Registration, ATTN: Cheryl Behrens, 732 N. Washington Street, Alexandria, VA 22314. Fax form (credit card only) to (703) 684-2037.
4. Registration form must be received by January 31, 2012, to be processed in advance and at the reduced rate.

Forms received without payment will not be processed.

Purchase orders will not be accepted. No exceptions.

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CANCELLATION POLICY

Cancellations received by January 31, 2012, will be refunded, less 20% all items. Requests for refunds received after January 31 will not be honored. All cancellations must be made in writing to cheryl@amstat.org, via fax to (703) 684-2037, or mailed to CSP Registration, ATTN: Cheryl Behrens, 732 N. Washington Street, Alexandria, VA 22314.

REGISTRATION FEES (required)

	By January 31	Onsite February 16-18	
<input type="checkbox"/> Member	\$325	\$375	\$ _____
<input type="checkbox"/> New Member	\$455	\$505	\$ _____
<input type="checkbox"/> Nonmember	\$495	\$545	\$ _____
<input type="checkbox"/> Student	\$150	\$150	\$ _____

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Virtual Career Placement—See www.amstat.org/meetings/csp/2012/placement for details.

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Employer	ASA Corporate Member	Nonmember	
<input type="checkbox"/> Virtual Career Placement	\$500	\$750	\$ _____
<input type="checkbox"/> Virtual Career Placement + Interview Hospitality Suite	\$1,000	\$1,500	\$ _____

Courses—See the following page or visit www.amstat.org/meetings/csp/2012 for course details. Space is limited.

Full-Day Short Courses—Thursday, February 16

Fee: \$300 each for members and students; \$350 each for nonmembers

8:30 a.m.–5:30 p.m.

- SC1: Analysis of Messy Data: Design and Analysis of Experiments Requiring Mixed Models—*George Milliken* \$ _____
- SC2: Regression Modeling with Many Correlated Predictors: High-Dimensional Data Analysis in Practice—*Jay Magidson and Tony Babinec* \$ _____

Half-Day Short Courses—Thursday, February 16

Fee: \$200 each for members and students; \$250 each for nonmembers

8:30 a.m.–12:30 p.m.

- SC3: Introducing R for Statistical Analysis—*Eric Nantz* \$ _____
- SC4: Why Don't They Get It?—*Bill Williams* \$ _____

1:30 p.m.–5:30 p.m.

- SC5: Using Statistical Engineering to Solve Large, Unstructured Problems—*Roger W. Hoerl and Ronald D. Snee* \$ _____
- SC6: Managing Your Time and Priorities—*Bill Williams* \$ _____

Tutorials—Saturday, February 18

Fee: \$60 each for members and students; \$70 each for nonmembers

1:30 p.m.–3:30 p.m.

- T1: Putting Your Best Loafer Forward—*Bill Williams* \$ _____
- T2: Promoting Your Consulting Career in the Era of Web 2.0—*Steve Simon* \$ _____
- T3: Measurement Systems Analysis—*Jennifer H. Van-Mullekom* \$ _____
- T4: Bayesian Analysis in SAS—*Mike Patetta* \$ _____

TOTAL FEES: \$ _____

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Full-Day Short Courses

Thursday, February 16

8:30 a.m.–5:30 p.m.

SC1: Analysis of Messy Data: Design and Analysis of Experiments Requiring Mixed Models

Instructor: George Milliken, Kansas State University (retired)

Four basic design structures that are building blocks for complex designs will be presented visually and conceptually. The analyses of the four design structures will be described in such a way that one can determine the appropriate error terms and associated degrees of freedom. Three of the four design structures are mixed models. The concept of fixed and random effects will be discussed, as well as analysis of a basic mixed model. Several examples will be used to demonstrate the use of the basic design structures to extract an appropriate model for complex designs. Examples will include incomplete block designs, repeated measures designs, split-plot designs, strip-plot designs, and combinations of these designs. SAS's PROC MIXED and PROC GLIMMIX will be used to demonstrate the construction of code from the results of developing models for complex designs.

8:30 a.m.–5:30 p.m.

SC2: Regression Modeling with Many Correlated Predictors: High-Dimensional Data Analysis in Practice

Instructors: Jay Magidson, Statistical Innovations Inc.; Tony Babinec, AB Analytics

The availability of a vast amount of data in fields such as genomics, marketing research, and signal processing has led to recent advances in high-dimensional data analysis. It is now possible to develop reliable regression models, even when the number of predictors exceeds the number of cases. In this course, we will begin by reviewing problems and limitations with traditional linear and logistic regression. We will then introduce the two primary regularization approaches for analyzing such data—penalized regression and component methods—related software, and recent advances in feature selection.

Our applications-oriented presentation provides insight into how the new approaches work in examples with both low- and high-dimensional data and an overview of the relevant theory, supplemented by supporting equations. We will use real and simulated data sets to illustrate the different methods. The material presented will be included in a forthcoming book on this topic by the presenter.

Half-Day Short Courses

Thursday, February 16

8:30 a.m.–12:30 p.m.

SC3: Introducing R for Statistical Analysis

Instructor: Eric Nantz, Eli Lilly and Company

R is a powerful statistical and data analysis software package that has rapidly become the software of choice for understanding data and applying statistical methodologies. Unlike the traditional statistical analysis software, R is free and open source. This course will introduce R and supplemental tools to enhance the user experience. We will then discuss how to import common data file formats into R for analysis. We will use example data sets to illustrate how to compute basic statistics, conduct inference procedures, fit linear models, create visualizations of the data, and perform data manipulations. Last, we will discuss best practices for writing R programs and additional resources

for learning more about the capabilities of R. When finished, you will be able to use R for a comprehensive data analysis with basic data operations, statistical methods, and visualization.

Attendees should have a basic understanding of descriptive statistics and statistical methods such as *t*-tests, linear regression, and chi-square test. Before the course, instructions for installing R and supplemental materials will be given to all participants. While not required, it is beneficial for attendees to install this software before the course.

8:30 a.m.–12:30 p.m.

SC4: Why Don't They Get It?

Instructor: Bill Williams, Organizational Learning Consultant

Many of us make presentations to others as part of our work, from presenting ideas to a supervisor, to presenting analysis results in a small group meeting, to more formal, stand-up affairs in front of rooms full of people. Regardless, if you have ever felt you were being tuned out or misunderstood by an audience, it may be time to learn to “see” through their eyes. In this workshop, you'll assess your preferred modes of communication and identify strategies for adjusting to audiences with different cognitive styles and communication preferences.

1:30 p.m.–5:30 p.m.

SC5: Using Statistical Engineering to Solve Large, Unstructured Problems

Instructors: Roger W. Hoerl, GE Global Research; Ronald D. Snee, Snee Associates, LLC

This course was designed to enhance the skills of statisticians in using statistical engineering to solve large, complex, unstructured problems encountered in business, industry, and government. We will identify important gaps in the theory of statistical engineering for which research is needed. Several case studies of the use of statistical engineering in a variety of fields will be presented. Issues to be addressed include understanding what statistical engineering is, why it is important, and how to use it, as well as identifying research gaps. We also will discuss how statistical engineering differs from the classic application of statistics. Participants will be introduced to the critical leadership skills needed for the successful use of statistical engineering. Each participant will develop a personal action plan for using statistical engineering in their work environment, whether in academia, government, or the private sector. Participants will gain insight into increasing the impact of their work and how to transition from being viewed as passive consultants to proactive leaders within their organizations. We will use presentation and discussion of material from articles about statistical engineering, as well as share personal experiences (participants and course leaders) in solving large, unstructured problems. The course will be highly interactive, enabling extensive participation by all.

1:30 p.m.–5:30 p.m.

SC6: Managing Your Time and Priorities

Instructor: Bill Williams, Organizational Learning Consultant

Time management isn't so much a skill as a collection of around a dozen skills, from broader behaviors like goal setting, to management skills like delegation, to more granular tactics like scheduling. Most of us excel at some and fall short on others. In this course, you will identify your priorities, look at what gets in the way of addressing them, identify your time management strengths and areas for improvement, and explore means of shoring up your weak areas.

Tutorials

Saturday, February 18

1:30 p.m.–3:30 p.m.

T1: Putting Your Best Loafer Forward

Instructor: Bill Williams, Organizational Learning Consultant

As professionals, the outcomes of our work are a critical part of our success, but we don't always give sufficient attention to how we achieve those outcomes and, particularly, the impressions co-workers, managers, and clients get from interacting with us. This tutorial will help you honestly assess what “foot” you put forward as a professional, enabling you to clarify the impressions you want others to have of you and identify specific actions you can take to convey those impressions at work, in work-related activities, and online.

1:30 p.m.–3:30 p.m.

T2: Promoting Your Consulting Career in the Era of Web 2.0

Instructor: Steve Simon, PMean Consulting

Web 2.0, defined by Wikipedia as “web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the World Wide Web,” offers new opportunities for you to promote your consulting career. These tools are mostly free or very inexpensive, though they are labor intensive. In this talk, I will describe some Web 2.0 tools I have used to promote my independent consulting career (Facebook, Twitter, LinkedIn), as well as some of the unwritten rules about appropriate usage of these tools. I will contrast these tools with simpler Internet methods (static websites, email newsletters) and some non-computer methods that can help promote your consulting career. Web 2.0 will not replace more traditional modes of career promotion, but it offers unique opportunities to supplement these efforts.

1:30 p.m.–3:30 p.m.

T3: Measurement Systems Analysis

Instructor: Jennifer H. Van-Mullekom, DuPont

Measurement systems analysis is critical to any development or improvement effort in your business. A poor measurement system can result in the inability to distinguish between product development candidates or determine the success of an improvement. This tutorial will provide basic instruction on how to complete and communicate measurement systems analysis for continuous variables, attribute (discrete) variables, and inline systems. Multiple software packages will be demonstrated. Examples will include both transactional and engineering/R&D examples. Emphasis will include the practical aspects of designing, executing, analyzing, and communicating the measurement system study within the context of multidisciplinary, cross-functional teams.

1:30 p.m.–3:30 p.m.

T4: Bayesian Analysis in SAS

Instructor: Mike Patetta, SAS Institute

This tutorial focuses on Bayesian analyses using the PHREG, GENMOD, and MCMC procedures. Most of the examples are in the area of clinical trials. Specific topics to be covered are:

- Fit a logistic regression model in PROC GENMOD

- Fit a survival model in PROC PHREG

- Use prior distributions in a Bayesian analysis

- Fit a logistic regression model, general linear mixed model, and zero-inflated Poisson model in PROC MCMC

- Illustrate a Bayesian approach to clinical trials using PROC MCMC

- Illustrate the Bayesian approach to meta-analysis

SCIENCE POLICY

This month's guest columnist, Adrienne Pilot of the Council of Economic Advisers, describes a major development for the federal statistical agencies. A carefully crafted proposal to Congress would allow the economic statistical agencies to better synchronize their business data, thereby allowing these agencies to improve their economic statistical data while still protecting confidentiality.

—Steve Pierson, ASA Director of Science Policy

Data Synchronization: Leveraging Existing Business Data to Better Measure the Economy

Adrienne Pilot, Director of Statistical Office, Council of Economic Advisers

An interagency data synchronization proposal, developed by the Commerce, Labor, and Treasury departments would yield important improvements in accuracy, reliability, and comparability across the federal economic statistical system—and across national, regional, industry, and international data. If approved by Congress, the revenue-neutral proposal would broaden Bureau of Economic Analysis (BEA) access to Internal Revenue Service (IRS) business tax data and enable the Bureau of Labor Statistics (BLS) and U.S. Census Bureau to better synchronize their business lists while complying with all relevant privacy and confidentiality regulations.

Why Change Is Needed

Current tax law authorizes limited access to federal tax information (FTI) for statistical use. Although the Census Bureau is granted access to FTI for all businesses, BEA is permitted access only to corporate tax data, and BLS lacks access to any federal business tax data. Business tax data (such as company name and address) are used to construct the Census Bureau's business list; many Census Bureau data products are thus considered to be "comingled" with tax information. Although the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA) authorizes the Census Bureau, BEA, and BLS to share business information for statistical purposes, companion legislation to amend the IRS code will be necessary to facilitate sharing and synchronization of business tax data among these agencies.

The status quo poses two primary problems for the statistical system. First, growing numbers of U.S. businesses are adopting unincorporated legal forms, such as limited liability companies (LLCs) and partnerships, rather than the corporate legal form. With access restricted to tax data for corporations, BEA must impute increasingly more business income each year.

Second, the BLS and Census Bureau business lists—the foundations of federal business statistics and the sample frames for the majority of federal business surveys—are not in sync. A 2006 study comparing classifications of businesses by BLS and the Census Bureau found 33% of matched single-establishment firms had been assigned different North American Industrial Classification System (NAICS) industry codes on the two lists. Because the Census Bureau list is derived using tax information, the Census Bureau cannot share its list with BLS to reconcile these differences. As a result, classification and coverage inconsistencies persist, affecting major economic statistics, especially those (such as gross domestic product) that integrate data produced by different agencies.

Preserving confidentiality is essential for both FTI and statistical data. IRS Publication 1075 prescribes protocols to safeguard tax data—secure storage, restricted access, proper disposal, and reporting requirements. CIPSEA specifies standardized safeguards for data gathered for statistical purposes. Both regimes provide criminal and civil sanctions, including fines and imprisonment, for unauthorized disclosure or inspection of confidential information. BEA, BLS, and the Census Bureau routinely protect highly sensitive data, including tax data and the market-sensitive economic information these agencies produce.

Proposal

Consistent with the intent of CIPSEA, the revenue-neutral interagency proposal would amend the Internal Revenue Code—26 USC 6103(j)—to:

Augment BEA's current access to corporate business FTI data with access to information for sole proprietorships with receipts greater than \$250,000 and for all partnerships.

Permit BLS to receive Census Bureau data for businesses (and tax-exempt entities), comingled

with limited FTI, so these two agencies may synchronize their business lists. The Census Bureau would provide identifier variables (business name, address, taxpayer identification number, and NAICS industry code) for record matching and selected economic variables (such as total employment and business-level wages) to facilitate investigation of non-matches or questionable matches. (BLS would not have access to FTI for individual employees.) The Census Bureau also would provide BLS with sales/revenue by product line data for improvement of industrial price indexes.

Permit state agencies (whose administrative records form the basis of the BLS business list) to receive limited identity variables (business name, address, taxpayer identification number, and industry only) for synchronizing the BLS and Census business lists.

Both IRS and CIPSEA safeguard regimes would apply to any tax information being shared. After researching discrepancies using third-party sources, BLS and the states would introduce only independently verified changes into their lists, so their business lists would never become comingled with shared federal tax information.

Better Data for Better Decisionmaking

This legislative proposal would improve the accuracy and comparability of major, widely used economic statistics. Federal economic statistics are used by private firms—the engines of economic growth—for planning and analysis. Policymakers depend on these measures to understand and guide the economy. Current data gaps and inconsistencies cloud this understanding. Federal agencies use data to target surveys; better data may improve efficiency in data collection. Examples of improvements in accuracy, reliability, and efficiency that may be possible across the federal economic statistical system follow.

National

BEA's National Income and Product Accounts provide two measures of national economic activity: gross domestic product (GDP, primarily Census Bureau based) and gross domestic income (GDI, primarily BLS based). In theory, the income and product sides of the national accounts ledger should be equal, but they differ in practice due in part to coverage and classification differences in the BLS and Census Bureau source data.

Improving BEA's measurement of GDP and GDI may result in more accurate forecasts of budget deficits. According to the Office of Management and Budget, consistent understatement of GDP forecasts by 0.5% per year would result in a \$1.6 trillion

overstatement of the projected cumulative budget deficit over a 10-year budget window. Although GDP exceeds GDI in some years and falls short in others, trends sometimes persist for years. For example, from 1995–2000, real GDP grew 0.5% slower than real GDI, on average, per year. Accurate data are important to the formulation of fiscal policies.

Reducing the discrepancy between GDP and GDI and refining BLS productivity measurement would support the Federal Reserve Board's formulation of monetary policy. Real trend GDP growth is used to estimate noninflationary sustainable growth; consistent understatement could mistakenly imply the need for tighter monetary policy. Productivity also is considered to evaluate how fast the economy can expand without triggering inflation.

Industry

Reconciling differences in BLS and Census Bureau industry classifications would provide a clearer picture of industry-specific growth rates. For example, at the height of the economic expansion in 2007, BEA's official measure of growth in the computer industry (calculated using payroll data from BLS) was 20%; a simulation by BEA found that, had payroll data from the Economic Census been used instead, the industry's growth rate would have been measured as 28%. Access to microdata would permit BEA to investigate such inconsistencies to improve the accuracy of industry-specific GDP growth statistics.

Improving the industry sampling frame for producer price indexes would provide more accurate industry output deflators. BLS would use Economic Census revenue by product line data to select the specific items to include in industry “market baskets,” thereby reducing respondent burden, improving sampling efficiency, and producing more accurate price indexes.

Regional

Reconciling geographic classifications would improve confidence in the regional income measures used by the federal government to allocate hundreds of billions of dollars to states and used by state governments to forecast revenue. BEA's state personal income, for example, is used to allocate more than \$300 billion in federal funds (including Medicaid) to states and is used by state governments to project tax revenues and plan budgets.

Income source data from BLS and the Census Bureau are often inconsistent. Discrepancies between BLS wage and salary and Census Bureau payroll measures for the private sector vary from state to state. In comparison with Census Bureau data, for example, 2007 total state-level private sector wage and salary data reported by BLS were 6% higher in New Hampshire but 12% lower in Alaska. Although large states may have discrepancies that

are small in percent terms (2% in both Michigan and New York), their state-level differences can amount to billions of dollars. Reconciling classification and coverage differences through data synchronization may improve the accuracy and comparability of these estimates, enhancing confidence in their use.

International Trade

Allowing BEA to supplement its sample frame with Census Bureau identifier information for noncorporate as well as corporate firms would correct an understatement in U.S. trade statistics. As the producer of the official International Transactions Accounts statistics, BEA gathers services trade data through business surveys. The Economic Census includes a question on exports of services, which could help BEA identify firms that engage in services trade. This legislation would permit the Census Bureau to share firm identifier information for noncorporate as well as corporate firms, allowing BEA to develop a more comprehensive universe.

A BEA study comparing data on the export of services found that many firms that reported export revenue on the 2002 Economic Census did not report exports to BEA. (The reverse also held true.) Inconsistent reporting occurred in many important

service sectors. In the management and consulting services sector, at least 80% of the firms reporting export revenue to the Census Bureau did not report these exports to BEA. As many as 250 telecommunications firms—with a mean export value of \$18 million—were also not being captured in the official statistics. By using Census Bureau information to develop a more comprehensive sample frame, BEA could correct the understatement of U.S. services exports.

Conclusion

By allowing BLS and the Census Bureau to share and synchronize their business data, these agencies could reconcile classification differences, increase coverage, and research reporting differences—all improving the accuracy and comparability of the statistics they produce. Granting BEA access to business FTI for the growing noncorporate segment of businesses (especially in the service sector) will result in improved measures of income and international transactions. The proposed modest changes to the IRS code will be essential for achieving these improvements. By leveraging existing business data, we will be able to gain new insight into our economy, aiding business decisionmakers and policymakers at all levels of government. ■



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MASTER'S NOTEBOOK

On Being a Fresh Grad

Andrea Barbo, Georgetown University

It has been nine months, but it seems like only yesterday when my classmates and I presented in a poster session as the culmination of a year's work for our master's in biostatistics program. I can still recall the strong sense of fulfillment (and relief) I felt for having completed and achieved something. I was both excited and anxious of what was in store for a fresh graduate like me.

It also seems like only yesterday when I was in full job-hunting mode—the countless modifications to my résumé and cover letters, networking with professors, and filling out online job applications. I knew I had to have an impressive résumé and be resourceful and patient to land a job I really liked in a field I was interested in—cancer research. Relying on my previous work experience and good recommendations from professors, I was fortunate enough to land a job two months after graduating.

I have been working as a research associate in Georgetown University Medical Center for seven months now. I have been part of an interdisciplinary team that provides informatics support for two huge cancer family registries established by the National Cancer Institute. Being new to a large, multi-center project was definitely challenging, as I had to quickly learn and understand the database to be able to generate quality reports and help improve data quality. It felt very rewarding, though, knowing the team's efforts play a role in the conduct of invaluable genetic and molecular epidemiologic research by investigators all over the world.

I have heard and read about how biostatistics is such an employable field and a rewarding career to pursue. I could say that my experience as a fresh grad was enriching and my first job post-master's has made me realize even more that grad school was a good idea. I am happy to know my former classmates feel the same way:

Beth Elston, Providence, Rhode Island

I am a data analyst for a reproductive epidemiologist. So far, I am thoroughly enjoying my job, especially the analysis, less so the data management. My master's in biostatistics was a good foundational start for this job. However, there's been an extraordinary amount of on-the-job learning. I continue to learn about concepts we touched on in school, and I am learning and applying brand new concepts. This is what I was expecting as a new graduate.

I started job hunting with about two months left in my master's program. I mostly searched online



From Left: Yi-Ting Tsai, Andrea Barbo, Jui-Fu Huang, Su Qi, Ping Li, Beibei Yu, Yixiao Gong, Thomas McAndrew, Adane Fedaku, Deepti Reddy, Beth Elston, and Eshetu Tefera

and submitted many, many résumés. As time progressed, I kept broadening my search geographically. Around a month into the search, I started to hear back from prospective employers. My current position provided the best fit for what I was looking for in regard to job tasks and quality of life. I think the most helpful thing for me was to have experience in a variety of aspects of health research, especially data collection and entry, prior to beginning the program. This provided me perspective on other people's roles (and headaches).

Tom McAndrew, Bronx, New York

I'm a biostatistician for Albert Einstein College of Medicine (AECOM). I work for AECOM, Montefiore Medical Center, and Jacoby Medical Center on HPV genetics and cervical cancer research. My job is rewarding. I'd like to continue my education soon. My master's gave me the base knowledge that I can expand on in an ever-changing analysis environment. I chose to pursue higher education because I love learning. My job hunt took 1.5 to 2.5 months. I found this job online.

Su Qi, Baltimore, Maryland

I am a bioinformatics analyst. Work is going really well; coworkers are willing to help and teach a lot. Having a master's in biostatistics gave me a strong foundation to go further into the human genetics field. I decided to pursue biostatistics because I wanted to go into a field in which I can apply both my biology and statistics knowledge. The job-hunting process for me took more than four months. My advice to those interested in a career in biostatistics is to find an area you are really interested in and build a strong knowledge foundation. ■

STATtr@k

Becoming a Manager of Statisticians

John Johnson, Associate Director of Statistics at REGISTRAT-MAPI



By now, we all know the demand for statistical skills is increasing rapidly, and the same is true for statistical leadership. Statisticians who are good at managing analysts and working with both project teams and clients are needed to make our processes better, work across disciplines within a company, plan projects with clients, and advocate for the needs of analyst teams.

Interns Wanted

If you enjoy using numbers to learn about people, the economy, or world events, you may be interested in applying for the Joint Program in Survey Methodology (JPSM) internship program. Currently, there are 30 positions open for undergraduates who have completed their sophomore or junior year as of June 2012. The internship will take place in Washington, DC, and the deadline to apply is January 7, 2012, at 5 p.m.

Successful applicants will work at one of the federal statistical agencies in the Washington, DC, area during the summer of 2012. They will work on key indicators of unemployment, crime, consumer prices, population migration and growth, agricultural production, educational performance of young people, transportation trends, or a host of other topics. They will participate in seminars on survey methodology and explore career options in survey research. This is a paid internship, with a salary of at least \$24,000 (full-time annual equivalent), and apartment-style dormitory housing will be provided. For information, contact JPSM, 1218 LeFrak Hall, College Park, MD 20742. Visit the website at www.jpsm.umd.edu/fellows for details.

Becoming a great manager starts at the beginning of a career, and the soft skills—competence and confidence in interpersonal interaction—required in management are necessary for managers and useful for technical-track analysts. In fact, analysts are well-positioned to pick up these skills by employing many of the same ideas used in computer simulation: Plan, Rehearse, Execute, and Reflect (but not too long).

For example, say you promised a project manager a delivery by tomorrow, but due to data problems, you will not be able to deliver until the day after tomorrow. Let's see how these steps might look:

PLAN—write down on paper exactly what the situation is. Just get down all the facts, and perhaps even revise once for clarity. Remember to phrase everything in terms of actions and consequences. You also might consider adding a softener such as “I know I agreed to deliver tomorrow, but I just found out that . . .”

REHEARSE—work with a friend or mentor to do a dry run of presenting your case. Ask your rehearsal partner to come up with issues that may complicate your case. This kind of planning can not only help you strengthen your case, but also help you “think on your feet” during the interaction. You also might practice in front of a mirror, the same way you would rehearse a presentation.

EXECUTE—go to the project manager and present the case.

REFLECT—when the interaction is over, reflect on what went right and what went wrong. Focus specifically on your behavior during the interaction, rather than what was out of your control, and determine which behaviors you want to repeat.

Repeat this process for all sorts of interactions—working on a project team, contributing to department and company meetings, working with clients, and giving presentations. The final piece of the puzzle is to make a flexible plan of which technical and soft skills to pick up and a schedule for picking up these skills. An experienced coworker or supervisor can help with this in the beginning, as will paper and pen.

I created this plan by interviewing senior statisticians in the organizations I have worked for, and then

took an afternoon to critically think about which skills I needed to pick up and prioritized them. For example, I placed a high priority on learning “the big picture” about how the statistics department fits into the company, which helped me identify which other departments had critical processes I needed to understand—data management, clinical strategy (which had the responsibility of writing reports), and so forth. In turn, I learned how to communicate with members of those departments effectively just by learning their language and rehearsing.

Revisit this plan every quarter or six months, because circumstances change. In executing the plan, volunteer for activities that take you just beyond your comfort zone. For example, my company needed to recruit several more statisticians and our human resources group did not feel comfortable pre-screening the job qualifications. I volunteered to recruit statisticians for our group and had to become comfortable calling people out of the blue to ask them about their experience. Not only did my phone skills improve, I ended up with the title of associate director within a year.

Resources

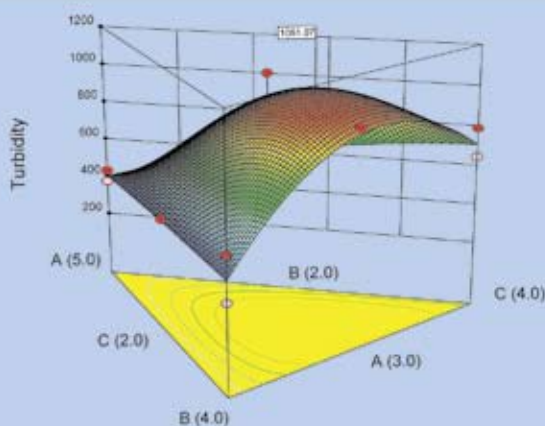
Manager Tools - www.manager-tools.com (free and premium content)—This site hosts two podcasts that I have found helpful in developing communication skills. Especially useful is their explanation of the DiSC model, which describes the behaviors associated with focus (tasks vs. people) and expression (internal vs. external).

Mind Tools - www.mindtools.com (free and premium content)—This site has a good workbook for goal planning and a wide range of content for career-building skills.

The Introvert Leader - www.introvertleader.com (blog)—A new blog I started that covers leadership and communication for introverts.

The world needs more statisticians who are willing and able to work well with our colleagues in both statistics and the sciences. With a little effort, you can pick up the skills necessary to be one of those leaders and perhaps lead a team of your own. ■

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Noether Senior and Young Scholar

Nominations are being accepted for the 2012 Noether Senior and Noether Young Scholar awards. Visit www.amstat.org/careers/gottfriednoetherawards.cfm for more information and a nomination form. If you have questions, contact the committee chair, Pranab K. Sen, at pksen@bios.unc.edu or (919) 966-7274. Nominations should be sent before December 1 to Pam Craven in the ASA office at pamela@amstat.org or 732 N. Washington St., Alexandria, VA 22314, ATTN: Award Nominations.

Waksberg

The journal *Survey Methodology* established an annual invited paper series in honor of Joe Waksberg to recognize his contributions to survey methodology. Each year, a prominent survey statistician is chosen to write a paper that reviews the development and current state of an important topic in the field of survey methodology.

The recipient of the award will receive an honorarium and give the 2013 Waksberg invited address at the Statistics Canada Symposium. Also, the paper will be published in a future issue of *Survey Methodology*.

Nominations or suggestions for topics should be sent before February 28, 2012, to Mary Thompson, award committee chair, at methomps@uwaterloo.ca. ■

Many ASA sections and chapters offer their own awards. Visit the section website at www.amstat.org/sections/index.cfm and chapter website at www.amstat.org/chapters/index.cfm to view their award offerings.

Deadlines and Contact Information for ASA National Awards, Special Lectureships, and COPSS Awards

www.amstat.org/careers/awards.cfm

December 1, 2011

ASA Noether Senior and Young Scholar Awards

Nominations: Pam Craven, pamela@amstat.org
Questions: Pranab K. Sen, pksen@bios.unc.edu

December 15, 2011

COPSS Fisher Lectureship and Award

Ross Prentice c/o Sheri Greaves
rprentic@whi.org and sgreaves@whi.org

January 15, 2012

COPSS Presidents' Award

Tony Cai, tcai@wharton.upenn.edu

January 15, 2012

COPSS Elizabeth L. Scott Award

Francesca Dominici, fdominic@hsph.harvard.edu

March 2, 2012

ASA SPAIG Award

Barry D. Nussbaum, nussbaum.barry@epa.gov

March 9, 2012

ASA Statistics in Chemistry Award

Rick Lewis, richard.a.lewis@gsk.com

March 15, 2012

ASA W. J. Dixon Award for Excellence in Statistical Consulting

Nominations: Pam Craven, pamela@amstat.org
Questions: Christina M. Gullion, christina.gullion@kpchr.org

March 15, 2012

ASA Founders Award

Nominations: Pam Craven, pamela@amstat.org
Questions: Nancy L. Geller, nancylgeller@gmail.com

March 15, 2012

ASA W. J. Youden Award in Interlaboratory Testing

Nominations: Pam Craven, pamela@amstat.org
Questions: Michael J. Messner, messner.michael@epa.gov

March 15, 2012

ASA Waller Education Award

Nominations: Pam Craven, pamela@amstat.org
Questions: June Morita, june@stat.washington.edu

April 2, 2012

ASA Gertrude M. Cox Scholarship

Nominations: Pam Craven, pamela@amstat.org
Questions: Eleanor Feingold, feingold@pitt.edu

April 2, 2012

ASA Outstanding Statistical Application Award

Nominations: Pam Craven, pamela@amstat.org
Questions: Petrutza C. Caragea, pcaragea@iastate.edu

April 2, 2012

ASA Edward C. Bryant Scholarship

Nominations: Pam Craven, pamela@amstat.org
Questions: Tapabrata Maiti, maiti@stt.msu.edu

April 2, 2012

ASA Excellence in Statistical Reporting Award

Nominations: Pam Craven, pamela@amstat.org
Questions: Morteza Marzjarani, marzjara@svsu.edu

April 2, 2012

ASA Samuel S. Wilks Memorial Medal

Nominations: Pam Craven, pamela@amstat.org
Questions: Paul P. Biemer, ppb@rti.org

sectionnews

Biometrics

Timothy D. Johnson, section program chair, is collecting proposals for JSM 2012 topic-contributed talks. If you are interested in organizing such a session, contact him at tdjtdj@umich.edu. While the deadline for submitting topic-contributed session abstracts is February 2, 2012, proposals should be sent to the program chair as early as possible.

Also, applications are invited for the 2012 Byar Young Investigator Award and section travel awards. The submission deadline has been changed to December 15. All materials must be submitted electronically to J. Jack Lee at jjlee@mdanderson.org. For details, visit <http://magazine.amstat.org/?cat=17>.

Biopharmaceutical

Student paper awards are presented annually during the Biopharmaceutical Section open business meeting at the annual Joint Statistical Meetings. The deadline for 2012 student paper submissions is December 15. Submissions should be labeled “Biopharmaceutical Section Student Paper Submission” and sent to Carmen Mak, section program chair for JSM, at cmak06@gmail.com. For details, visit www.amstat.org/sections/sbiop or <http://magazine.amstat.org/?cat=17>.

Quality and Productivity

Students in statistics programs across the country can benefit greatly from participating in statistical conferences and other professional activities. To aid these students in their involvement, The ASA Quality and Productivity Section (Q&P) initiated a student scholarship program to attend the Joint Statistical Meetings. This year, five \$400 scholarships were awarded to students to attend JSM in Miami Beach, Florida. Numerous applications were received and we congratulate the following winners: Fadel Megahed, Matthias Tan, Ye Tian, Amanda McCracken, and Gary Mercado.

Looking forward to 2012, Q&P will offer up to three travel awards of \$400 each for students enrolled in a graduate program with a concentration in applied statistics and/or quality management to attend JSM in San Diego, California. The student applicants must have a demonstrated interest in quality applications, as evidenced by course work,

research topic, or work experience. Applicants either presenting a paper or participating in a poster session will receive extra consideration. Contact David Edwards at dedwards7@vcu.edu with questions or to request an application. Applications will be accepted February 1 to March 31, 2012.

Risk Analysis

The ASA Section on Risk Analysis is soliciting entries for the Student/Young Researcher Paper Competition. Each year, the section offers at least one student/young researcher travel award of \$1,000 to help pay for attending the Joint Statistical Meetings. The deadline for the 2012 competition is December 15. Entries should be sent to Murali Haran, chair of the section’s student paper award committee, at mbaran@stat.psu.edu. Include “Student/Young Researcher Paper Award” in the subject line. The result will be announced by January 15, 2012, and the abstract(s) must be submitted to JSM by the winner(s) by midnight on February 1, 2012. For details, visit www.amstat.org/sections/srisk or <http://magazine.amstat.org/?cat=17>.

Statistical Computing

The Statistical Computing Section announces the competition for the John M. Chambers Statistical Software Award. The winner(s) will receive \$500 and a substantial allowance for travel to the 2012 Joint Statistical Meetings in San Diego, California.

Teams of up to three people can participate in the competition, with the cash award being split among team members. The travel allowance will be given to just one individual on the team, who will be presented the award at JSM. To be eligible, the team must have designed and implemented a piece of statistical software. The individual within the team indicated to receive the travel allowance must have begun the development while a student and must either currently be a student or have completed all requirements for her/his last degree after January 1, 2011. To apply for the award, teams must provide a current CV, letter of recommendation, brief, one- to two-page description of the software summarizing what it does, and installable software package with its source code for use by the award committee. Preference will be given to those entries

To view section news in its entirety, visit <http://magazine.amstat.org>.

grounded in software design, rather than calculation. The decision of the award committee is final.

All application materials must be received by 5:00 p.m. EST on February 20, 2012. The winner will be announced in May. Visit www.statcomputing.org for details.

Statistical Computing and Statistical Graphics

The Statistical Computing and Statistical Graphics sections of the ASA are cosponsoring a student paper competition on the topics of statistical computing and statistical graphics. Students are encouraged to submit a paper in one of these areas, which might be original methodological research, a novel computing or graphical application in statistics, or a software-related project. The selected winners will present their papers in a topic-contributed session at the 2012 Joint Statistical Meetings. The sections will pay registration fees for the winners and a substantial allowance for lodging and transportation to the meetings. All application materials must be received by 5 p.m. EST on December 15.

Additional information about the competition can be accessed at www.amstat.org/sections/studentpaperawards.cfm or www.statcomputing.org. Inquiries and application materials should be sent to Fei Chen at fchen6@its.jnj.com.

Statistical Education

The Statistical Education Section announces the winners of the spring 2011 election, which include chair-elect Deb Nolan, council of sections representative Paul Roback, and at-large members Nathan Tintle and Amy Froelich.

This year, the section contributed support toward MAA Project NeXT and the Conference on Statistical Research, Teaching, and Literacy, hosted by Utrecht University. Funding requests are due by February 1, 2012, to Robert Gould at rgould@stat.ucla.edu.

A number of section members were recognized at JSM in Miami Beach, Florida. Deborah A. Nolan, Herbert I. Weisberg, and Lori A. Thombs became ASA Fellows, and the Waller Education Award for outstanding innovation in the teaching of elementary statistics was presented to Michelle Everson, who is also the section's program chair for JSM 2012.

Also listed in the JSM awards ceremony program was the debut of the *Journal of Statistics Education* Best Paper Award. The \$1,500 award for the best 2010 *JSE* paper honors *JSE* founding editor Jackie Dietz and was presented to Nicholas J. Horton,

Maxine Pfannkuch, Matt Regan, and Chris Wild for their March 2010 paper, "Telling Data Stories: Essential Dialogues for Comparative Reasoning."

Statistics and the Environment

The ASA Section on Statistics and the Environment is sponsoring a student paper competition on the topic of environmental statistics. The selected winner will present his/her paper in a contributed session at JSM 2012 and receive a \$1,000 stipend toward expenses for attending JSM. Anyone who is a student in the fall of 2011 is eligible to participate. Submit materials by 5 p.m. on December 15 to Andrew B. Lawson at lawsonab@musc.edu. The result of the competition will be made known to participants by January 15, 2012. For information about how to apply for the student paper competition, visit www.amstat.org/sections/studentpaperawards.cfm. For detailed section news, visit <http://magazine.amstat.org/?cat=17>.

Survey Research Methods

Jill A. Dever, ASA SRMS

The Survey Research Methods Section (SRMS) offers a student travel award for students in doctoral programs in statistics, survey methodology, or allied disciplines. Support is offered for students to attend the Joint Statistical Meetings, to be held in San Diego, California, from July 28 to August 2, 2012. Preference is given to students presenting a paper or poster at the conference. In addition, applications must be supported by a current SRMS member. Approximately three awards will be granted to cover conference expenses up to \$500. Winners are expected to attend JSM sessions and the SRMS business meeting to be recognized by the section. Previous student travel award winners and JSM 2012 student paper competition winners are not eligible for this award.

Application forms are available at www.amstat.org/sections/SRMS/travelapp_2012.docx. The deadline for applications is December 15. Questions should be addressed to Jill A. Dever at jdever@rti.org.

Teaching of Statistics in the Health Sciences

Section officers are pleased to recognize the following JSM TSHS award winners:

Distinguished Achievement Award—Ed Gracely

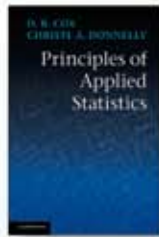
Young Investigator Award—Kendra Schmid

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Categorical Data**

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Lidwine B. Mokkink, Dirk L. Knol
*Practical Guides to Biostatistics and
Epidemiology*
\$99.00: Hb: 978-0-521-11820-0; 348 pp.
\$45.00: Pb: 978-0-521-13385-2

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A. Taylan Cemgil,
Silvia Chiappa
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432 pp.



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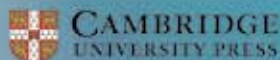
Random Graph Dynamics

Rick Durrett
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Probabilistic Mathematics*
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**Evaluating Learning Algorithms
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Nathalie Japkowicz, Mohak Shah
\$99.00: Hb: 978-0-521-19600-0; 422 pp.

Prices subject to change.



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Outstanding Teaching Award— Lisa Sullivan

Best Contributed Paper Award—Heather Bush
for “Higher-Order Assessments: Bridging the
Gap Between Expectations and Outcomes”

Applications are being sought for the 2012
Young Investigator Award, Outstanding Teaching
Award, and Best Contributed Paper Award (at JSM
2012). Details will be announced via email and
posted on the TSHS website at www.bio.ri.ccf.org/ASA_TSHS. The deadline for receipt of applications
is February 1, 2012. All award winners will be noti-
fied in March of 2012 and formally recognized at
the TSHS business meeting and mixer at JSM 2012
in San Diego, California.

For more information, visit <http://magazine.amstat.org?cat=17>.

chapternews

San Francisco Bay Area

Roger Hoerl and Ronald Snee will present “Using
Statistical Engineering to Solve Large, Unstructured
Problems” on January 28, 2012, during a workshop
at the Hotel Biltmore in Santa Clara, California. The
workshop, hosted by the San Francisco Bay Area
Chapter of the ASA, was designed to enhance the
skills of statisticians when using statistical engineer-
ing to solve large, complex, unstructured problems
encountered in business, industry, and government.

Several case studies of the use of statistical engi-
neering in a variety of fields will be presented. Issues
to be addressed include understanding what statisti-
cal engineering is, why it is important, and how to
use it. Also, the difference between statistical engi-
neering and the classic application of statistics will
be discussed. For more information and to register,
visit www.sfasa.org.

The Bay Area chapter also inaugurated a two-day
workshop for Bay Area AP teachers August 11–12
at Carlmont High School. ASA Acting Director of
Education Rebecca Nichols and Michael Posner
of Villanova helped arrange for AP Statistics book
authors Alan Rossman and Beth Chance to lead
the workshop. Visit <http://magazine.amstat.org/blog/2011/11/01/bayareanov11> to find out how they
did it and how your chapter can host a workshop
for area AP Statistics teachers. ■

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Listings are shown alphabetically by state, followed by international listings. Vacancy listings may include the institutional name and address or be identified by number, as desired.

Professional Opportunities vacancies also will be published on the ASA's website (www.amstat.org). Vacancy listings will appear on the website for the entire calendar month. Ads may not be placed for publication in the magazine only; all ads will be published both electronically and in print.

Rates: \$320 for nonprofit organizations (with proof of nonprofit status), \$475 for all others. Member discounts are not given. For display and online advertising rates, go to www.amstat.org/ads.

Listings will be invoiced following publication. All payments should be made to the American Statistical Association. All material should be sent to *Amstat News*, 732 North Washington Street, Alexandria, VA 22314-1943; fax (703) 684-2036; email advertise@amstat.org.

Employers are expected to acknowledge all responses resulting from publication of their ads. Personnel advertising is accepted with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual orientation.

Also, look for job ads on the ASA website at www.amstat.org/jobweb.

Alabama

■ The department of mathematics and statistics at Auburn University, Alabama, is seeking to fill a tenure-track assistant professor position in statistics to begin August 16, 2012. A PhD in statistics or related area is required and applicants should have strong evidence of teaching and research potential in Statistics. Details available at www.auburn.edu/~smith01/positions/StatWebAd.pdf. Auburn University is an Affirmative Action/Equal Opportunity Employer. For more information about the department, visit our home page: www.math.auburn.edu.

California

■ Department of statistics & applied probability, University of California, Santa Barbara, invites applications for a tenure-track assistant professor position in financial mathematics, starting 7/1/2012. Additional information at www.pstat.ucsb.edu/FcltyRcrtmntAd2011-12.pdf. Qualifications: research/teaching



Department Chair and Professor Department of Epidemiology and Biostatistics University of South Carolina

The Arnold School of Public Health at the University of South Carolina is seeking an energetic, visionary Chair to expand the Department of Epidemiology and Biostatistics academic and research initiatives. The Department is home to faculty with activities funded by a broad variety of federal agencies, private industry, and philanthropic organizations. Several faculty are nationally and internationally renowned for their research and outreach programs. The department offers PhD and DrPH academic programs, as well as Master of Public Health (MPH) and Master of Science in Public Health (MSPH) degrees.

We seek candidates capable of leading the department during expansion of cross-disciplinary academic and research initiatives linking epidemiological and biostatistical research, teaching and service. The University of South Carolina has been designated by the Carnegie Foundation as a "very high research activity" institution. The Department of Epidemiology and Biostatistics plays a key role in the Arnold School, which is a campus leader in scholarship with over \$25 million in research funding. The Arnold School's leadership is committed to providing the new Department Chair with the resources necessary to enhance the department's research and academic activities. Additional opportunities are available through Health Sciences South Carolina, an innovative collaborative of the state's research universities and major medical systems, the Academic Health Department partnership with the SC Department of Health and Environmental Control, and a partnership with the Greenville Hospital System in the upstate of South Carolina. More information about the Arnold School of Public Health and the Department of Epidemiology and Biostatistics can be found at www.sph.sc.edu.

The successful candidate will have demonstrated evidence of scholarly achievement, an established record of research funding, and teaching excellence commensurate with the rank of tenured full professor. In addition, the individual will be an established leader who can facilitate faculty, staff, and student development through mentoring and advocacy, and can build collaborations with intramural and extramural partners. Qualifications include an earned doctorate in epidemiology, biostatistics, or related discipline.

The position will remain open until filled. Interested candidates should submit a curriculum vita, list of three references, and a cover letter describing their qualifications and leadership experience to: Epidemiology and Biostatistics Search Committee Chair, 800 Sumter St. Room 205, University of South Carolina, Columbia, SC 29208, Attn: Robin Brown, or email to rbrown@mailbox.sc.edu. Other inquiries can be directed to Dr. Gregory Hand, Search Committee Chair, grehand@mailbox.sc.edu.

EEO / AA Policy: The University of South Carolina values diversity and is an Equal Opportunity/ Affirmative Action Institution. Women and minorities are strongly encouraged to apply.



JOHNS HOPKINS
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DEPARTMENT OF BIostatISTICS

The Department of Biostatistics at the Johns Hopkins Bloomberg School of Public Health seeks qualified applicants to join our tenure-track faculty. Rank of appointment will be commensurate with experience and new PhDs and recent postdoctoral fellows are encouraged to apply. Candidates should have a PhD or equivalent in statistics, biostatistics, or a comparable data science field. Department faculty members are committed to education and engage in cutting edge research to advance statistical and quantitative reasoning, methods and discovery in the health sciences.

The Hopkins Department of Biostatistics, founded in 1918, was the first degree-granting department of statistical science in the US and has ranked among the best throughout its history. The Johns Hopkins Health Institutions (Schools of Public Health, Medicine, and Nursing, and the Johns Hopkins Hospital) are among the top worldwide and provide a research environment in which energetic faculty can promulgate scientific excellence. Today, the Department comprises 18 tenure track faculty members, 13 research track faculty members, 8 postdoctoral fellows, 37 PhD students, and 10 full-time master degree students.

TO APPLY

Email cover letter, CV, contact information for three references, a statement of research interests and goals, and two papers representing the applicant's most important work to: Faculty Search Committee at biostat@jhsph.edu. eoe/aa

Women and under-represented minority candidates are particularly encouraged to apply. The Johns Hopkins University is an affirmative action/equal opportunity employer.

excellence; PhD in statistics, mathematics or related fields. Candidates who can contribute to the diversity of excellence of the academic community through research, teaching and service are particularly encouraged to apply. An EO/AA employer.

■ The statistics group in the Marshall School of Business at USC invites applications for an assistant professor position. Applicants must display strong research potential and excellent teaching skills. Researchers in all areas of statistics are encouraged to apply. Remuneration is very competitive and generous research support is provided. All applicants should send cover letter, CV, and three letters of reference to Charlene.Conston@marshall.usc.edu. University of Southern California is an AA/EOE.

■ Statistics tenure-track position. The statistics department, California Polytechnic State University, San Luis Obispo, CA has a full-time, academic year position available September 2012. Rank is commensurate w/qualifications and experience. PhD in statistics or closely related discipline required. Commitment to quality undergraduate teaching and continuing professional development required. For details, qualifications, and application instructions (online faculty application required), visit www.calpolyjobs.org. Apply to requisition #102407. EEO.

■ RAND Statistics Group is seeking PhD-level statisticians interested in exciting opportunities to collaborate on multidisciplinary public policy research projects. Openings exist for recent graduates and experienced statisticians. See our ad in the September *Amstat News* for description or go to www.rand.org/statistics. Application deadline December 15, 2011. Applications must be submitted online following the instructions at www.rand.org/statistics/jobs.html (Job ID #2962). Send questions to Susan_Paddock@rand.org. EO/AA Employer.

District of Columbia

■ Tenure-track assistant professor position for fall 2012. Primary responsibilities: teaching, research, and service. All areas of statistics are considered. PhD in statistics or a closely related field and demonstrated

excellence in research required. Visit <http://departments.columbian.gwu.edu/statistics>. Send application, CV, and 3 recommendation letters to Search Committee, Statistics Department, George Washington University, Washington, DC 20052. Screening starts 1/10/2012; applications will be accepted until position filled. The George Washington University is an affirmative action/equal opportunity employer.

■ Apply your science to serve society. Since 1973, over 2,200 scientists & engineers have contributed their analytical skills to policymaking in DC. Opportunities are available in congressional offices and federal agencies for science and engineering professionals. Applicants must be U.S. citizens and hold a doctoral degree in any scientific discipline, or a master's degree in engineering with three years experience. Deadline: December 5. Visit <http://fellowships.aaas.org>. EOE.

Training Program at Texas A&M University for New Investigators in Bioinformatics and Biostatistics

The Department of Statistics at Texas A&M University anticipates openings for its two-year training program in Bioinformatics and Biostatistics with an emphasis on the Biology of Nutrition and Cancer (<http://stat.tamu.edu/train>). The position involves extensive research interaction with a senior biological mentor who has extensive grant support and an active program using the most recent high throughput technologies. Program participants will receive training via a structured format in biology, genetics, transcriptome sequencing technology, genomic signal processing, and the biological mechanisms of cancer that may be activated by nutrition-related factors. No teaching duties are required. Each participant will be mentored by a multidisciplinary team of experienced researchers from Statistics, Electrical Engineering, Nutrition and Computer Science and will be provided with excellent computing support. Applicants should have a Ph.D. in a quantitatively oriented discipline, such as statistics, electrical engineering and applied mathematics. Funding is restricted to U.S. citizens and permanent residents. Stipends are competitive with initial tenure-track positions in statistics. Interested applicants should send a vita and three letters of reference (for new or recent Ph.D.s) by February 15, 2012 to:

Raymond J. Carroll
Department of Statistics
Texas A&M University
College Station TX 77843-3143
carroll@stat.tamu.edu

AA/EOE

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NORC conducts high quality social science research in the public interest from its headquarters at the University of Chicago and from its offices in Chicago, IL, Washington, DC, Bethesda, MD, and Berkeley, CA.

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Postdoctoral Fellowships for 2012-2014

The Statistical and Applied Mathematical Sciences Institute (SAMSI) is soliciting applications for up to six postdoctoral positions to begin in September, 2012. A Ph.D. in a field related to SAMSI's Research Programs for the year 2012-2013, as described below, is required. Appointments, at extremely competitive salaries, will typically be for two years and be made jointly between SAMSI and one of its Partners.

SAMSI is part of the Mathematical Sciences Institute program of the National Science Foundation and is a partnership of Duke, North Carolina State University, The University of North Carolina, and the National Institute of Statistical Sciences. SAMSI is forging a synthesis of the statistical sciences and the applied mathematical sciences with disciplinary sciences to confront the hardest and most important data- and model-driven scientific challenges.

SAMSI will run the following Research Programs in 2012-13:

- **Data-Driven Decisions on Healthcare** will focus on issues of mathematical and statistical theory and methodology that must be addressed to improve evidence-based healthcare decision-making;
- **Statistical and Computational Methodology for Massive Datasets** will focus on fundamental methodological questions of statistics, mathematics and computer science posed by massive datasets, with applications to astronomy, high energy physics, and the environment.

Postdoctoral Fellows will participate in one of these Research Programs in collaboration with statisticians, applied mathematicians and disciplinary scientists from universities, industry, national laboratories and government agencies.

Criteria for selection include demonstrated research ability in statistical and/or applied mathematical sciences, interest and experience in the SAMSI program areas. The deadline for full consideration is January 31, 2012. Postdoctoral appointments may be made at any time. Members of under-represented groups are particularly encouraged to apply.

SAMSI only accepts electronic applications. Additional information and the electronic application can be accessed at mathjobs.org. Additional information on the programs may be found at our website: www.samsi.info.

SAMSI is an Affirmative Action/Equal Opportunity employer.

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ASA
AMERICAN STATISTICAL
ASSOCIATION
Promoting the Practice and Profession of Statistics

The College of Arts and Sciences at American University (Washington, DC) invites applications for a full-time, tenure-track, Assistant Professor position, beginning in August 2012, in computational neuroscience (broadly defined, including but not limited to neural networks, simulation, image processing, and bio-informatics). The appointee's tenure home and departmental affiliation will depend on his or her research background. Applicants must have a PhD in a relevant discipline. Teaching and post-doctoral experience are preferred. Responsibilities include: teaching and curriculum development; establishing an internationally recognized research program, preferably one that can involve undergraduate research participation; strengthening connections to neurosciences across campus; and service to the appointee's home department and the wider university.

American University has made other recent hires in neuroscience, and benefits from proximity to other scientific institutions in the Washington area. (For example, NIH is three metro stops from the AU campus.) The College of Arts and Sciences offers a variety of degrees at the undergraduate, masters, and doctoral levels. For more information about our programs, visit www.american.edu/cas/.

Applicants should submit a cover letter, curriculum vitae, teaching statement, and research statement, and applicants must arrange for three letters of recommendation to be sent directly to the search committee. Materials can be submitted online (highly preferred) at <http://academicjobsonline.org/ajo>, or via email to CompNeuroSearch@american.edu, or in hard copy to Computational Neuroscience Search Committee, Department of Mathematics and Statistics, American University, Washington, DC 20016-8050. Applications received by December 10, 2011 will receive full consideration.

American University is an EEO/AA institution, committed to a diverse faculty, staff, and student body. Women and minority candidates are strongly encouraged to apply. American University offers employee benefits to same-sex domestic partners of employees and prohibits discrimination on the basis of sexual orientation/preference and gender identity/expression.

ASSOCIATE PROFESSOR

The University of Kansas Medical Center is seeking an Associate Professor within the Department of Biostatistics. This recruitment is joint with the University of Kansas Cancer Center (KUCC) and will be expected to direct the biostatistics and informatics shared resource (BISR) that resides within the department and supports the cancer center. This position will play a crucial role in collaborating with research faculty within KUCC, the School of Medicine and the University. The priority will be to focus on supporting the BISR but will also have teaching and other duties within the department. This position is expected to engage in collaborative research with other faculty from programs and departments within the School and University. Expertise within the department includes linear, nonlinear, and longitudinal modeling, clinical trial and experimental design, survival analysis, categorical data analysis, and Bayesian methodology.

Why should you take advantage of this promising opportunity?

- As an institution, the School of Medicine was 60th out of 127 ranked medical schools in the country and 32nd among public medical schools.
- KU is committed to recruiting new physician scientists and fostering an interdisciplinary structure with the basic science programs with the goal of building integrated research programs that will generate new knowledge about pathogenesis and treatment of human diseases and ultimately translating these findings into pioneering initiatives to study and treat disease.
- Extremely stable work environment; strong state resources and support
- University of Kansas ranked among large university in the **top five** of "2008 Best Colleges to Work For"

Required Qualifications: Ph.D. in Statistics or Biostatistics or related field. Collaborative research experience in oncology. At least 5 years collaborative research experience in supporting grant applications as a co-investigator.

Preferred Qualifications: Experience at an NCI-designated cancer center. Experience at running core or shared resource facilities. Statistical methodological skill set that is complementary to the current department expertise.

To view the complete position description and apply on-line go to <http://jobs.kumc.edu> and search for position M0203380. The Department of Biostatistics supports the mission of the University of Kansas Medical Center "To create a positive environment for instruction, research and service." The University of Kansas Medical Center is proud to be an Equal Opportunity/Affirmative Action Employer.

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Research Statistician Developers

General responsibilities include identifying appropriate statistical techniques for implementation, programming in C, testing and documenting the software, and giving presentations to statistical audiences. Positions require a PhD in statistics, biostatistics, applied mathematics, numerical analysis or a related field, as well as specialization in one of the areas listed below.

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To view and apply online, visit: www.sas.com/jobs/USjobs/#11001682

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Drug-free environment; screening required.



Applications with a PhD in Statistics or related fields are invited to apply for a full professorship and several assistant/associate professorships in the Department of Statistics & Applied Probability, National University of Singapore. NUS offers competitive remuneration, generous research funding, relocation assistance and other benefits.

Applicants should send application letter and CV and THREE reference letters by post/email to:

Department of Statistics and Applied Probability

National University of Singapore
6 Science Drive 2
Singapore 117543
E-mail: stasec@nus.edu.sg

There is no deadline for applications but that the search will continue until all positions are filled.

Idaho

■ Department of Mathematics. Assistant professor of statistics; full-time, nine-month, tenure-track starting August 2012. Responsible for teaching advanced and undergraduate courses in statistics, active research in statistics, and participation in the curricular oversight of the undergraduate statistics program. See www.isu.edu/math for details on both the job description and the application. Review of completed applications begins 12/01/2011 and will continue until the position is filled. Idaho State University is an AA/EEO Employer.

Indiana

■ Indiana University, Department of Statistics. Tenure-track assistant professor starting 8/2012. Desire active research program and teaching excellence. More information: www.stat.indiana.edu. Send CV, p/reprints, research and teaching statements, three letters of reference to: Search Committee, Department of Statistics, Indiana University, Statistics House,

309 North Park Ave., Bloomington, IN 47408. Applications received by 11/13/11 guaranteed consideration. IU is an EO/AA employer.

■ University of Notre Dame. The department of applied and computational mathematics and statistics of the University of Notre Dame is seeking an associate or full professor of statistics. The successful applicant must have a doctorate in statistics, biostatistics, or a closely related field, and a record of success in both research and teaching. Applicants should visit <http://lacms.nd.edu/job-opportunities> to learn more and to apply for the positions. Notre Dame is an equal opportunity employer, and we particularly welcome applications from women and minority candidates.

■ Indiana University: Joint appointment in statistics and sociology. Tenured or tenure-track associate/assistant professor. Active research in statistical methodology and substantive area of sociology. Teaching excellence. See www.stat.indiana.edu/jobs.phtml. Send CV, p/reprints, research and teaching statements, three letters of reference to Scott Long socstat@indiana.edu or: Search Committee, Department of Sociology, 1020 Kirkwood Ave., Bloomington, IN 47405. Review of applications continues until position filled. IU is an EO/AA employer.

■ Quantitative methods professional specialist position at the University of Notre Dame, teaching undergraduate statistics in business in the Mendoza College of Business. Review of applications will start December 1, 2011. Please contact mgtdept@nd.edu for questions. The full description of the position is on the ASA JobWeb and http://business.nd.edu/QM_PS.pdf. The University of Notre Dame, an international Catholic research university, is an equal opportunity employer.

Iowa

■ Iowa State University. Tenure-track assistant or tenured associate professor position. Excellence in research and teaching expected. Submit CV, transcripts, teaching and research statements, up to five publications, and contact information for three references to www.iastatejobs.com, under vacancy 110881. Iowa State



University of Pittsburgh Graduate School of Public Health

Department of Biostatistics
Tenure-Track Faculty Positions

The Department of Biostatistics in the Graduate School of Public Health at the University of Pittsburgh seeks applicants for two tenure-track positions at the assistant, associate, and/or professor level, to begin in fall 2012 or earlier. We seek outstanding individuals with a commitment to methodological and collaborative research, and teaching. We have particular interest in candidates with research expertise in several areas including, but not limited to, clinical trials, comparative effectiveness, longitudinal data analysis, and observational studies. For further information, please go to www.biostat.pitt.edu.

Formal review of applications will begin December 1, 2011 and continue until the positions are filled. Rank and salary will be determined by the candidate's credentials. New PhDs and postdoctoral fellows are encouraged to apply. Candidates should submit a letter of application, a statement of research and teaching interests, and a curriculum vitae. Candidates should also arrange for three reference letters to be submitted. Electronic applications are preferred and should be sent to biost@pitt.edu. Applications may also be submitted via mail to: University of Pittsburgh Graduate School of Public Health Department of Biostatistics; Biostatistics Faculty Search Committee; Howard Rockette, PhD; 130 DeSoto Street; Pittsburgh, PA 15261.

The University of Pittsburgh is an equal opportunity, affirmative action employer. Women and minority candidates are especially encouraged to apply.

University is an Equal Opportunity/
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■ Tenure-track assistant professorship starting 08/12. Required: PhD as of 08/15/12; strong research, teaching potential; interest in research collaboration. Preferred: compatible research interests. Details at www.stat.uiowa.edu/search.html. Selection begins 12/01/11. Submit application online at <http://jobs.uiowa.edu> (Requisition number 60079). Three letters of recommendation to Statistics Search Committee, 241 SH, University of Iowa, Iowa City, IA 52242. The University of Iowa is an equal opportunity/affirmative action employer.

Maryland

■ The biostatistics & bioinformatics branch in the division of epidemiology, statistics, and prevention research of the Eunice Kennedy Shriver National Institute of Child Health and Human Development invites applications for a tenure-track or tenure-eligible investigator. We are interested in

CHICAGO BOOTH

The University of Chicago Booth School of Business

The University of Chicago Booth School of Business is seeking to appoint outstanding scholars to tenure-track positions in Econometrics and Statistics.

Applications are invited from individuals who have earned a PhD (or equivalent) or expect to receive a doctorate in the near future. Members of our faculty are expected to conduct original research of exceptionally high quality, to teach effectively, and to participate in and contribute to the academic environment. Junior candidates will be judged on potential, and we will rely heavily on the advice of established scholars.

Each candidate should submit a curriculum vitae, a sample of written work, and the names of at least two scholars qualified and willing to evaluate the candidate's ability, training, and potential for research and teaching. Applications will be accepted online at <http://facultyapply.chicagobooth.edu>. We will start formally reviewing applications on December 1, 2011 and strongly encourage you to complete your application by then. We will continue to accept applications until March 16, 2012.

The University of Chicago is an Affirmative Action/Equal Opportunity Employer.



CEDARS-SINAI MEDICAL CENTER



Cedars-Sinai Medical Center Faculty Bioinformatics Scientist

A faculty Bioinformatics Scientist is sought who will (i) conduct independent, extramurally funded research, (ii) establish collaborations that amplify the work of other researchers who would benefit from bioinformatics approaches, (iii) teach in the graduate bioinformatics program, and (iv) consult in data analysis and interpretation with collaborators at Cedars-Sinai Medical Center.

The successful candidate will be part of multidisciplinary scientific teams and will be a core member of the Biostatistics and Bioinformatics Research Center. The candidate will be responsible for designing and executing a wide range of computational and analytical tasks, including developing novel algorithms for the analysis of -omic data, coupling pharmacologic response to genetic and clinical background, and integrating publicly or commercially available data with novel experimental data. Responsibilities will also include assessing and meeting project scope, and designing schedules and budgets for sponsored research grants.

The ideal candidate will have interdisciplinary training in human biology and bioinformatics/computational biology, particularly in the analysis and interpretation of microarray and/or proteomics data, statistical routines, reconstruction of signaling networks, computational network inference from experimental expression data, and the integration of public data sources/biological ontology to facilitate systems biology research. Working knowledge of modern biomedical research technologies and excellent communication skills are required.

Specific Responsibilities:

- Manage, mentor and provide vision in bioinformatics and statistics.
- Collaborate and assist with biomarker discovery and validation efforts.
- Facilitate migration of diagnostic, prognostic and predictive projects from discovery to development and manufacturing as approved commercial products.
- Prepare study designs and/or research plans for collaborative and/or independent diagnostic and hypothesis testing projects.
- Review manuscripts and reports and ensure that activities performed are conducted appropriately using correct methods and software.
- Communicate clearly and authoritatively with researchers in the area of molecular diagnostics.

Position Requirements & Experience:

- PhD in Bioinformatics, Physics, Mathematics, Statistics, Computer Science or comparable technical and quantitative field.
- Minimum of (3) years in medical/biotechnology industry and/or post-doctoral experience.
- Demonstrated accomplishments through publications in peer-reviewed journals.
- Experience in statistical analysis of data from high throughput genomic technologies such as mRNA expression, miRNA expression, CGH, deep sequencing and/or Taqman arrays strongly preferred.
- Faculty rank commensurate with experience.

Qualified applicants should send a cover letter and CV to:
Academic.Recruiting@cshs.org.

Cedars-Sinai encourages and welcomes diversity in the workplace AA/EOE



Department of Statistics
Faculty Position in Neuroscience/Developmental Science

The Department of Statistics(see www.stat.vt.edu) anticipates a tenure-track position in Neuroscience/Developmental Science with an emphasis on computational statistics, data mining, data visualization, pattern recognition, machine learning, image analysis, or related areas. The starting date is August, 2012. Appointments at the assistant professor level are preferred, but exceptional senior candidates will be considered. Applicants must have earned a doctorate in statistics, biostatistics, or closely related field at the time of appointment.

Questions can be directed to Professor Geoff Vining, Search Chair, Department of Statistics, Virginia Tech, Blacksburg, VA 24061-0439, Tel: (540) 231-3337, Email: vining@vt.edu. Applications must be submitted online at <http://www.jobs.vt.edu> posting #0110999. The application package should include a cover letter, curriculum vitae, a research plan and a statement of teaching philosophy. Applicants should arrange for three letters of recommendation to be submitted directly to the Search Chair. Review of applications will begin on December 1, 2011 and continue until the position is filled.

Virginia Tech is an EO/AA university, and offers a wide range of networking and development opportunities to women and minorities in science and engineering. Individuals with disabilities desiring accommodations in the application process should notify Ms. Betty Higginbotham (higgvt@vt.edu), Statistics Department, (540) 231-5657, or call TTY 1-800-828-1120.

methodological research in longitudinal, survival, and high-dimensional analyses. For position details, see <https://science.nichd.nih.gov/confluence/display/DESPR/BBB+Recruitment>. Contact Paul S. Albert, senior investigator and chief, albertp@mail.nih.gov. The HHS and NIH are Equal Opportunity Employers.

Massachusetts

■ Postdoctoral associate at the Five College consortium (Amherst, Hampshire, Mount Holyoke, and Smith Colleges and UMass Amherst). Duties include teaching at the liberal arts colleges, research at UMass, and consulting throughout the Five Colleges. Three years. Ideal for a new PhD to explore careers in large and small academic institutions. Details at www.mathjobs.org. UMass Amherst is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.

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■ Mathematics department MIT seeking to fill combined teaching and research positions as instructor, assistant professor and higher in statistics or applied probability beginning September 2012. Appointments based mainly on exceptional research qualifications. PhD required by employment start date. Submit online, www.mathjobs.org: CV, research description, three recommendation letters. Applications should be complete by December 1, 2011. (See full classified text at mathjobs.) www.mathjobs.org. Massachusetts Institute of Technology is an Equal Opportunity Affirmative Action Employer.

■ Postdoctoral fellowships are available in the department of biostatistics at the Harvard School of Public Health. Fellows will engage in methodological research and participate in ongoing collaborative projects. Please view details on specific positions at our website: www.hsph.harvard.edu/departments/biostatistics/fellowship-opportunities. Applications from minority and female candidates are especially encouraged. Harvard University is an AA/EOE.

Michigan

■ The Survey Research Center (www.src.isr.umich.edu) in the Institute for Social Research invites applications from outstanding candidates for faculty research fellow appointments in any area of social science. These appointments are intended to lead directly into a research professor tenure-track career. Applicants should submit a cover letter, vita, and one or two publications. Three reference letters should be sent electronically to SRCSearch@isr.umich.edu. Reference position #59505. The University of Michigan is an Affirmative Action/Equal Opportunity Employer and is responsive to the needs of dual career couples. Women and minority candidates are encouraged to apply.

■ University of Michigan, Ann Arbor. The department of statistics invites applications for a tenure-track position at the assistant professor level, starting 09/12. Doctorate in statistics or a related field, excellence in research and teaching required. See www.stat.lsa.umich.edu regarding materials to be provided.

NC STATE UNIVERSITY

Tenure-Track Faculty Positions

Assistant / Associate / Full Professor

The Department of Statistics at North Carolina State University invites applications for three tenure track positions (one Assistant Professor and two Associate/Full Professors). Appointments are to begin in August 2012. College priorities include health, energy, environmental and computational statistics.

Applicants must have a Ph.D. in Statistics or Biostatistics. Candidates for Associate or Full Professor must have an established record of funded research, collaboration, and exemplary teaching. Responsibilities include teaching, research, and doctoral student research supervision. The department seeks applications from (and nominations of) candidates from ALL areas of statistics.

To apply, please visit <https://jobs.ncsu.edu> and designate position number 100688. Applicants must complete an applicant profile and attach a letter of application, curriculum vitae, and contact information for three references. Candidates for assistant professor must also include recent transcripts.

For more information about the department, visit <http://www.stat.ncsu.edu>. To discuss your potential interest in the position, please do not hesitate to contact Howard Bondell, Chair of Statistics Search Committee, (919) 515-1914, bondell@stat.ncsu.edu.

Tenure-Track Faculty Position in Statistical Education

Associate / Full Professor

The Department of Statistics at North Carolina State University invites applications for a tenure track (Associate/Full Professor) position in Statistical Education. The Appointment is to begin in August 2012. For this position, we are particularly interested in hiring faculty with a strong interest and established record in statistical education.

Applicants must have a Ph.D. in Statistics or Biostatistics. Candidates must have an established record of funded research, collaboration, and exemplary teaching. Responsibilities include teaching, research, and doctoral student research supervision.

To apply, please visit <https://jobs.ncsu.edu> and designate position number 102335. Applicants must complete an applicant profile and attach a letter of application, curriculum vitae and contact information for three references.

For more information about the department, visit <http://www.stat.ncsu.edu>. To discuss your potential interest in the position, please do not hesitate to contact Dave Dickey, Chair of Statistics Search Committee, (919) 515-1925, dickey@stat.ncsu.edu.

Processing of applications will begin December 5, 2011 and continue until the positions are filled. ADA Accommodations: Felicia Harris at voice: (919) 515-1944, email: harris@stat.ncsu.edu, or fax: (919) 515-7591.

NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, age, veteran status, or disability. In addition, NC State welcomes all persons without regard to sexual orientation. We welcome the opportunity to work with candidates to identify suitable employment opportunities for spouses or partners.



School of Public Health

Biostatistics Division Director (Tenured or Tenure-Track Full or Associate Professor)

This newly-created Division Director position will guide academic and research biostatistics in the School. The position includes oversight responsibilities for the Department's biostatistics education programs and Biostatistics Service Center as well as the mentoring of junior biostatistics faculty. The Director will chart the future course of the Division and, consequently, the biostatistics enterprise at the School.

The position also includes research, teaching and service responsibilities, and comes with a tenured or tenure-track faculty line supported by hard dollars. Candidates should be proven scholars with a strong publication record in biostatistics and extensive independent and collaborative research experience. They must also be seasoned educators who have taught a range of statistics courses and mentored graduate students. Individuals with a variety of methodological research areas of interest will be considered.

Drexel is a top-50 private research university and the School of Public Health is the only accredited school of public health in Philadelphia. The Department of Epidemiology and Biostatistics now includes 16 full-time faculty members, seven of whom are biostatisticians.

Apply online at www.drexeljobs.com. Use "biostatistics" as a key word in the Search Postings area and select the appropriate position. Please complete the short on-line application and also submit your c.v. and a cover letter describing your interest, background and qualifications online.

Questions/inquiries can be addressed to:

Craig J. Newschaffer, Ph.D.
Chair, Department of Epidemiology & Biostatistics
cjn32@drexel.edu

Drexel University is an equal opportunity/affirmative action employer.

publichealth.drexel.edu

Competitive salary/fringe benefits. Review of applications will begin on December 1, 2011. Women and minorities are encouraged to apply. The university is supportive of the needs of dual career couples. Affirmative Action/Equal Opportunity Employer.

■ Michigan State University invites applications for a tenure-track assistant professorship, mathematics/statistics (Review of applications begins 12/1/11), in the Lyman Briggs College, an undergraduate, residential liberal arts science program. Candidates must excel in teaching and research. Full details are at www.lymanbriggs.msu.edu/faculty/openPositions.cfm. Michigan State University is an Affirmative Action/Equal Opportunity Employer. Applicants who are not U.S. citizens or permanent residents must provide a document of employment authorization for the US. Persons with disabilities have the right to request and receive reasonable accommodation. MSU is committed to achieving excellence through cultural diversity. The

NORTH CAROLINA STATE UNIVERSITY

The Statistical and Applied Mathematical Sciences Institute (SAMSI) invites applications for the position of Deputy Director for a term of five years beginning July 1, 2012.

SAMSI is one of eight mathematical sciences institutes funded by the National Science Foundation. The Deputy Director will be a distinguished researcher who will provide academic direction and oversight of the SAMSI grant, and who will work closely with the Director on all aspects of the Institute's oversight and program activities. The Deputy Director will also be strongly encouraged to pursue his or her personal research in conjunction with the SAMSI programs or independently.

SAMSI is managed by a Directorate which comprises five members: the Director, the Deputy Director and three part time Associate Directors. The Director and Deputy Director form the executive side of the Directorate and are responsible for the administration of programs, human resources and personnel issues, financial operation and infrastructure. Together with the other members of the Directorate, they also share the responsibilities of the selection, development and implementation of SAMSI programs.

The appointment will be made as a member of the research faculty at North Carolina State University. Rank and salary will be commensurate with the candidate's experience and qualifications.

Education Requirements: Candidate must have a minimum of a PhD in mathematics or statistics or equivalent.

Qualifications and Experience: Qualified candidates should be mathematicians or statisticians with excellent management skills and research record. Proven administrative experience is an asset. They should have a strong interest in developing the programs of the Institute.

To submit your application materials, go to <http://www.mathjobs.org/jobs/ncsu>. Include a vita, a letter of application and three letters of recommendation. To be considered for this position please also go to <https://jobs.ncsu.edu> and reference Position number 102319 to complete a Faculty Profile. Applications received by November 30, 2011 will be given priority. Write to math-jobs@math.ncsu.edu for questions concerning this position.

AA/EOE. In addition, NC State welcomes all persons without regard to sexual orientation. The College of Physical and Mathematical Sciences welcomes the opportunity to work with candidates to identify suitable employment opportunities for spouses or partners. For ADA accommodations, please contact Human Resources by email at employment@ncsu.edu or by calling (919) 515-2135.

University actively encourages applications and/or nominations of women, persons of color, veterans, and persons with disabilities.

Minnesota

■ The biostatistics division, School of Public Health, University of Minnesota, seeks applicants for open rank tenured/tenure-track faculty positions. Seeking individuals with 1.) academic/research records in Bayesian or other adaptive methods for clinical trials or 2.) structural equation modeling and other methods for accounting for latent factors in observational data. Longer ad: www.sph.umn.edu/biostatistics. Applicants should submit: cover letter, CV, names of references at <https://employment.umn.edu/applicants/Central:quickFind=97965>. EOE.

Missouri

■ At least one tenure-track assistant professor in statistics fall 2012. A PhD in statistics or related field by August 15, 2012. Apply online at <http://hrs.missouri.edu/find-a-job/academic> with a cover letter, CV, and transcripts required; three letters of reference sent to Search Committee, University of Missouri, Department of Statistics, 146 Middlebush Hall, Columbia, MO 65211 or umcstatfacsearch@missouri.edu. The University of Missouri is an Equal Opportunity/Affirmative Action/ADA Employer.

■ Cerner Corporation, leading supplier of health care information technology, seeks a senior statistician. The position is based in Kansas City, Missouri. A PhD in statistics or biostatistics, SAS programming skills, and 2 years of experience in clinical/health services research, epidemiology is required. For additional information and to apply, please visit www.cerner.com and search for Job ID: 227829. EOE.

North Carolina

■ Tenure-track assistant professor in statistics position at Wake Forest University. We seek highly qualified candidates committed to excellence in both teaching and research. We offer strong support and an exciting collaborative environment. By December 15, 2011, apply online (vitae, teaching/research statements, transcripts and three recommendation letters) to

MEDICAL UNIVERSITY OF SOUTH CAROLINA

Advanced Level Psychometrician/ Statistician

Healthcare Simulation South Carolina (HCSSC) is seeking a Psychometrician/Statistician to direct the educational research agenda for the new state-wide network of integrated medical simulation centers. These cutting-edge simulation centers support the healthcare training missions of the University of South Carolina Upstate, Medical University of South Carolina, Clemson University, the Greenville Hospital System, Horry Georgetown Technical College, Trident Technical College, University of South Carolina Beaufort, Greenville Technical College, and University of South Carolina College of Nursing. The Center's research missions include the impact of advanced instructional technology in patient safety, efficiency of training, efficacy of training, and establishing best practice competencies in a broad range of healthcare students and practitioners.

This position requires advanced degrees and some experience in educational research, specifically including guidance in research design, psychometrics of performance evaluation, statistical expertise related to this domain. A track record of publication is preferred. The position will be based from the Medical University of South Carolina in coastal Charleston, South Carolina, including academic appointments in the College of Medicine Department of Anesthesiology and College of Nursing.

Interested applicants in this novel opportunity for healthcare educational research across the State of South Carolina should apply at www.jobs.musc.edu with curriculum vitae and three professional references. Please reference requisition identification number 047659. If you have any questions or concerns in reference to this career opportunity, please contact Jacqueline Gaines, Administrative Director, at gainesj@musc.edu.

Medical University of South Carolina
Healthcare Simulation South Carolina
Harborview Tower, 19 Hagood Avenue, Suite 706
PO Box 250812
Charleston, South Carolina 29425



Cleveland Clinic

Faculty Position in Quantitative Health Sciences

The Cleveland Clinic is seeking an additional faculty member to join its multidisciplinary group in Quantitative Health Sciences. The current group has 19 faculty and over 90 total members and is expected to grow substantially over the next several years. Areas of research application include biostatistics, clinical trials, statistical genetics and bioinformatics, statistical computing, predictive modeling, quality of life assessment, and cost-effectiveness analysis.

Successful candidates must have excellent written and verbal skills with the ability and desire to conduct both collaborative and methodologic research. A doctoral degree with expertise in biostatistics or a related discipline, experience working with large databases, training in methods of analysis of health care status questionnaires (e.g. item-response theory, latent-class analysis, classical test theory, factor analysis), ability and desire to collaborate, strong desire to publish journal articles is required. Expectations are the publication of collaborative papers utilizing Cleveland Clinic Knowledge Program data and the development and publication of new methods of measuring/analyzing health status data. The level of appointment will commensurate with experience of the candidate and may be at the full, associate, or assistant level. This is a 'hard money' position with no explicit requirements to obtain salary support. Masters level statistician support will be provided. Data manipulation and questionnaire programming support will also be provided. Minimal formal teaching is expected.

The metropolitan and suburban areas of Cleveland comprise a population of over 3 million, rich in cultural diversity. The city itself is centrally located to several other large cities yet enjoys a low cost of living index. The Cleveland Clinic is a top-ranked hospital overall and in all specialties and has been the leading heart care center for 17 years.

Interested candidates should e-mail curriculum vitae, the names of at least three references, and a letter summarizing experience and research interests to qhsjobsearch@ccf.org. These and other current openings may be found at <http://www.clevelandclinic.org/qhs>.

NC STATE UNIVERSITY

Non-Tenure Track Faculty Position Teaching Assistant Professor

The Department of Statistics at North Carolina State University invites applications for a non-tenure track position at the Assistant Professor level. The appointment begins August 2012.

Applicants must have completed all requirements for a Ph.D. in Statistics or Biostatistics by the time of employment. The initial appointment is expected to be for five years. Based on performance, the position is eligible for subsequent reappointment and promotion in rank is possible.

To apply, please visit <http://jobs.ncsu.edu> and designate position number 102334. Applicants must complete an applicant profile and attach a letter of application, curriculum vitae, recent transcripts, a teaching philosophy, and contact information for three references.

For more information about the department, visit <http://www.stat.ncsu.edu>. To discuss your potential interest in the position, please do not hesitate to contact Dave Dickey, Chair of Statistics Search Committee, (919) 515-1925, dickey@stat.ncsu.edu.

Non-Tenure Track Faculty Position Research Assistant Professor

The Department of Statistics (in collaboration with the College of Veterinary Medicine) at North Carolina State University invites applications for a non-tenure track position as a Research Assistant Professor. The appointment begins August 2012.

The initial appointment is for two years. Based on performance and availability of funding, the position could have subsequent appointments. The successful candidate will provide statistical support to the College of Veterinary Medicine and Department of Statistics faculty through a combination of on-site presence and remote communication. The statistical support would be viewed as collaborative, with the successful candidate being encouraged to be an integral part of the whole process, from design of a study to its successful publication.

To apply, please visit <https://jobs.ncsu.edu> and designate position number 001268. Applicants must complete an applicant profile and attach a letter of application, curriculum vitae, recent transcripts, and contact information for three references.

For more information about the department, visit <http://www.stat.ncsu.edu>. To discuss your potential interest in the position, please do not hesitate to contact Dave Dickey, Chair of Statistics Search Committee, (919) 515-1925, dickey@stat.ncsu.edu.

Processing of applications will begin December 5, 2011 and continue until the positions are filled. ADA Accommodations: Felicia Harris at voice: (919) 515-1944, email: harris@stat.ncsu.edu, or fax: (919) 515-7591.

NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, age, veteran status, or disability. In addition, NC State welcomes all persons without regard to sexual orientation. We welcome the opportunity to work with candidates to identify suitable employment opportunities for spouses or partners.

www.mathjobs.org. Hard copy can go to Edward Allen, WFU, Mathematics, P.O. Box 7388, Winston-Salem, NC 27109. AA/EO employer.

■ A statistical writer is needed in the JMP Statistical Discovery Software division of SAS to document new features and refactor existing documentation that describes JMP functionality in printed books, help, and in-product PDFs. You will work closely with development staff and with the software itself to provide content for a broad audience of end users. See www.sas.com/jobs for more details on how to apply. www.sas.com/jobs SAS is an EOE/AA employer.

■ University of North Carolina, Chapel Hill, Department of Statistics and Operations Research. Applications are invited for a tenure-track position at the assistant professor level, beginning July 2012, in the area of statistical theory. We will begin reviewing applications after

Southern Methodist University Assistant Professor

The Department of Statistical Science at Southern Methodist University invites applications for a tenure track Assistant Professor appointment beginning Fall/August 2012 (Position No. 00006304). Candidates must hold a Ph.D. in statistics, biostatistics, or related discipline at the time of the appointment.

Applications may be submitted electronically (pdf format preferred) or by letter and should include a statement of research and teaching interests, curriculum vitae and contact information for three references. To ensure full consideration, the application must be received by December 31, 2011, but the committee will continue to accept applications until the position is filled.

Applications should be sent to Sheila Crain, Department of Statistical Science, Southern Methodist University, P.O. Box 750332, Dallas, Texas 75275 or to scrain@smu.edu.

SMU will not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. SMU is also committed to the principle of nondiscrimination on the basis of sexual orientation. Hiring is contingent upon the satisfactory completion of a background check.

November 1, 2011, and will continue accepting applications until the position is filled. For more information, see <http://jobs.unc.edu/2501769> to apply for this position. The University of North Carolina, Chapel Hill is an AA/EOE/ADA employer, and encourages applications from women and members of ethnic minorities.

Ohio

■ The Ohio State University Statistics Department (www.stat.osu.edu) invites applications for two tenure-track assistant professor positions beginning autumn semester 2012. PhD in statistics/biostatistics and excellence in research and teaching required. One position is targeted to interest in methodological research with application to biomedical sciences; the second is targeted to interest in theoretical statistics and its applications. Email vitae, three reference letters, and graduate transcripts to facultysearch2012@stat.osu.edu. To build a diverse work force, Ohio State encourages applications from minorities, veterans, women, and individuals with disabilities. Flexible work options available. EEO/AA Employer. Ohio State is an NSF Advance Institution.

■ Tenure-track assistant/associate professor position beginning August 2012. PhD in statistics/MIS/management science/related quantitative area, demonstrated potential for excellence in teaching and research. Research and experience in data mining/business analytics highly desirable. Send cover letter, CV, three recommendation letters, official transcripts to Arthur Yeh, Chair, Department of Applied Statistics and Operations Research, Bowling Green State University, Bowling Green, OH 43403-0267 post-marked by 1/13/2012. Visit www.business.bgsu.edu/asor. BGSU is an AA/EO Employer and encourages applications from women, minorities, veterans and individuals with disabilities.

■ Division of Biostatistics, College of Public Health, The Ohio State University (an AA/EOO employer), invites applications for a tenure-track associate or full-professor position to begin in autumn 2012. All candidates with a PhD in biostatistics or statistics will be considered, but we have particular interest in applicants

Survey Sampling Statistician

Westat is an employee-owned corporation headquartered in the suburbs of Washington, DC (Rockville, Maryland). We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, Westat has become one of the leading survey research and statistical consulting organizations in the United States.

Our company was founded in 1961 by three statisticians. The current staff of more than 2,000 includes over 60 statisticians, as well as research, technical, and administrative staff. In addition, our professional staff is supported by data collection and processing personnel situated locally and in field sites around the country. The work atmosphere is open, progressive, and highly conducive to professional growth.

Our statistical efforts continue to expand in areas such as the environment, energy, health, education, and human resources. Westat statisticians are actively involved in teaching graduate-level courses in statistical methods and survey methodology in collaborative arrangements with area colleges and universities.

We are currently recruiting for the following statistical position:

Survey Sampling Statistician

Job Code 4130BR

Responsibilities include: developing sample designs (determining stratification and allocation to strata; determine sample size based on differences and power; determine optimal clustering; and select sample); selecting and/or constructing appropriate sample frame; developing and documenting weighting plan which includes non-response adjustment and bench-marking; developing and conducting imputation for item non-response and estimating sampling errors using appropriate software; writing specifications for programmers; and preparing reports on sample design, weighting procedures and other methodological issues. Candidates would benefit from knowing SAS and other statistical software packages; although candidates are not required to do programming. A master's or doctoral degree in statistics is required with 3 or more years of relevant experience. Coursework in sample survey design is highly desirable.

Westat offers excellent growth opportunities and an outstanding benefits package including life and health insurance, an Employee Stock Ownership Plan (ESOP), a 401(k) plan, flexible spending accounts, professional development, and tuition assistance. To apply, go to www.westat.com/jobs and enter **4130BR** in the space provided.



An Employee-Owned
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Department of Health and Human Services National Institutes of Health National Institute of Allergy and Infectious Diseases Biostatistics Research Branch

The Biostatistics Research Branch at the National Institute of Allergy and Infectious Diseases is seeking candidates with a Ph.D. in statistics or biostatistics. Statisticians in the group have three main functions: conducting independent research on statistical methodology, oversight of large collaborative medical studies, and small-scale collaborations with individual researchers. Collaborative opportunities include bio-defense, HIV/AIDS, immunology, transplantation, vaccine development, and bioinformatics.

The position is a permanent appointment as a Mathematical Statistician. Applicants should send their resume and three references to Dean Follmann Chief BRB at dean.follmann@nih.gov. The vacancy will remain open until filled.



HHS, NIH and NIAID are equal opportunity employers





BIostatISTICS DIVISION SCHOOL OF PUBLIC HEALTH Tenure-track Faculty Positions in Biostatistics

The Division of Biostatistics in the School of Public Health at Yale University is accepting applications at the level of Assistant or Associate Professor. Applicants should have a PhD by the start of appointment in statistics, biostatistics, or a closely related field. Preference will be given to relatively recent graduates and to those with experience in the development and application of statistical methodology in the following areas: early phase clinical trials and translational research, particularly in cancer; imaging data; survey sampling; missing data; large data set analysis; spatial statistics; and comparative effectiveness/outcomes research. The Yale School of Public Health is committed to growing and extending its expertise in biostatistics. There are existing collaborations with the School of Medicine, particularly with the Yale CTSA and Cancer Center, and throughout the university. Successful candidates will be expected to develop an independent program of methodological research in their area of interest, while cultivating collaborations with other investigators in the School of Public Health, the School of Medicine and the University. In addition, successful candidates will be expected to teach MPH/PhD level students.

Applicants should send a single PDF file that contains a letter of interest, curriculum vitae, names of at least three professional references, and a statement of research interests. Review of applications will commence on November 15, 2011 and will continue until successful candidates are identified. For additional information and inquiries, and to submit an application, please contact:

Peter Peduzzi, PhD
Chair, Biostatistics Search Committee
Yale School of Public Health
Yale University School of Medicine
P.O. Box 208034
New Haven, CT 06520-8034
Email correspondence: biostatistics.search@yale.edu

Yale University is an affirmative action/equal opportunity employer. Yale values diversity in its faculty, students, and staff and especially welcomes applications from women and underrepresented minorities.

with statistical genetics and clinical trials background. For further details, visit <http://cph.osu.edu/biolopenpositions>. To apply, contact biostatsearch@cph.osu.edu. AA/EEO.

Pennsylvania

■ Possible tenure-track, lecturer, visiting positions. Collegial environment emphasizing disciplinary and cross-disciplinary research and teaching. All areas of statistics welcome. Joint appointments possible with other units in the Pittsburgh area. See www.stat.cmu.edu (email: hire@stat.cmu.edu). Send CV, research papers, relevant transcripts, and three recommendation letters to Faculty Search Committee, Statistics, Carnegie Mellon University, Pittsburgh, PA 15213, USA. Application screening begins immediately, continues until positions closed. www.stat.cmu.edu. Women and minorities are encouraged to apply. AA/EEO.

■ The statistics department at Temple University invites applications for a tenure-track, associate professor position. Candidates in any area of statistics must have a PhD in statistics, publications in top-tier journals, teaching excellence, and strong theory/application background. Apply electronically to Sanat Sarkar, stat.recruiting@temple.edu, with cover letter, CV, teaching evidence, & three recommendation letters. For more information, visit www.fox.temple.edu/dept/statistics. Temple University is an Equal Opportunity/Affirmative Action Employer.

South Carolina

■ Medical University of South Carolina. Advanced-level psychometrician/statistician. Healthcare Simulation South Carolina (HCSSC) is seeking a psychometrician/statistician to direct the educational research agenda for the statewide network of integrated medical simulation centers. Interested applicants in this novel opportunity for health care educational research across the state of South Carolina should apply at www.jobs.musc.edu with a CV and three references. Please reference requisition identification number 047659. AA/EEO.



ASSISTANT PROFESSOR IN STATISTICS (TENURE-TRACK)

The Department of Statistics at Florida State University invites applications for a tenure-track position in statistics starting August 2012. The Statistics Department has a growing teaching and research program with over 70 graduate students. We offer M.S. and Ph.D. degrees in Statistics and Biostatistics. Candidates with interests in all areas of statistics are invited to apply. A Ph.D. in Statistics, Biostatistics, or a related field is required. Candidates should have strong commitments to excellence in teaching and research.

Review of candidates will begin December 1, 2011 and continue until the position is filled.

Applications are being accepted online. Please visit our web site at <http://stat.fsu.edu> to apply and for additional information about the Department of Statistics.

Florida State University is An Equal Opportunity/Access/Affirmative Action Employer, committed to diversity in hiring, and a Public Records Agency. Women and minority candidates are particularly encouraged to apply.



THE GEORGE
WASHINGTON
UNIVERSITY
WASHINGTON DC

Faculty and Director Position

The Biostatistics Center

Department of Statistics, Columbian College of Arts and Sciences
Department of Epidemiology and Biostatistics,
School of Public Health and Health Services
The George Washington University

The Department of Statistics, the Department of Epidemiology and Biostatistics and the Biostatistics Center of the George Washington University jointly seek to fill a tenured faculty position as Professor and Director of the Biostatistics Center, which is administered by the Office of the Vice President for Research. The successful candidate will bridge the multiple large-scale population health research projects at the Biostatistics Center to theoretical and methodological research in the Departments of Statistics and Epidemiology/Biostatistics, creating additional strength in both Departments and enhancing the Biostatistics Center's standing as a preeminent research center. The academic appointment will be in either the Department of Statistics of the Columbian College of Arts and Sciences or the Department of Epidemiology and Biostatistics of the School of Public Health and Health Services, depending upon the preferred professional affiliation of the candidate who ultimately is selected.

Basic Qualifications: We seek applicants with a PhD in Statistics, Biostatistics or Epidemiology, or equivalent doctoral educational attainment; an established program of research, and a strong national and international reputation supported by a record of developing innovative statistical, biostatistical, or epidemiological methods. The position requires scientific leadership, the ability to create collaborative environments both within the Biostatistics Center and among multiple University Centers as well as with government researchers. Applicant must have experience with managing, in all or in part, large and complex multi-center research projects and must have a strong track record of success in developing and winning funding for clinical trials and/or population-based epidemiological studies either in university, governmental or non-governmental settings. Applicants should also have a strong pedagogical record in one or more of teaching, advising, or mentoring, and a significant record of development of innovative statistical, biostatistical, or epidemiological methods.

Core responsibilities of the position will be to serve as the Director of the Biostatistics Center, as Principal Investigator or Co-Investigator on one or more major projects of the Biostatistics Center, and as Professor of Statistics, Biostatistics or Epidemiology. As Professor, the incumbent will participate in the academic mission of the university. The incumbent will report directly to the chair of the department of the primary faculty appointment for academic matters and to the Vice President for Research for administrative and research matters of the Biostatistics Center.

Review of applications will begin November 10, 2011 and will continue until the position is filled. Only complete applications will be considered.

Application Procedure: To be considered please send via e-mail a letter containing a brief statement of interest, a statement of research interest, a curriculum vitae, copies of at least three representative publications and complete contact information for at least 5 external references to:

Search Committee for the GWU Biostatistics Center Director at DirectorSearch@bsc.gwu.edu

Applications from women, people of color and people with disabilities are especially encouraged.
The George Washington University is an Equal Opportunity/Affirmative Action Employer.

Possibilities and Probabilities

If working in an environment that values individuality and diversity and allows you to innovate, engage in problem solving, and achieve your professional goals appeals to you, then the Census Bureau is the place for you.

Your work as a Mathematical Statistician at the Census Bureau

- Design sample surveys and analyze the data collected.
- Design and analyze experiments to improve survey questionnaires and interview procedures.
- Improve statistical methods for modeling and adjustment of seasonal time series.
- Perform research on statistical methodology that will improve the quality and value of the data collected.
- Publish research papers and technical documentation of your work

Requirements

- U.S. citizenship
- Bachelor's, Master's or Ph.D with at least 24 semester hours in math and statistics (see website for more specifics on required coursework)

Apply at www.census.gov, click on Jobs@census, Headquarters and NPC Employment Opportunities, Mathematical Statistician

The U.S. Census Bureau is an Equal Opportunity Employer.

U S C E N S U S B U R E A U
Helping You Make Informed Decisions

U.S. Department of Commerce,
Economics and Statistics Administration,
U.S. Census Bureau

Texas

■ The department of statistical science at Baylor University is seeking applicants for an assistant/associate professor position, beginning August 2012. Candidates must hold a PhD in statistics or biostatistics and be committed to excellence in research, teaching, and service. Applicants should submit a letter of intent, vitae, transcripts, and three letters of reference to Statistics-Search-11@baylor.edu. Completed applications ensure full consideration if received by November 30, 2011. AA/EEO.

Wisconsin

■ Tenure-track assistant professor position (environmental statistics) beginning 8/2012. PhD in statistics/mathematics or related field (will consider ABD), demonstrated excellence in teaching and research or evident potential. Send letter, CV, transcripts, and arrange to have three letters of recommendation sent to Chair of Statistics Search and Screen Committee, Natural and Applied Sciences, University of Wisconsin-Green Bay, Phone (920) 465-2371, statisticssearch@uwgb.edu. Visit www.uwgb.edu/nas. The University of Wisconsin-Green Bay is an AA/EEO employer committed to achieving a diverse work force and to maintaining a community which welcomes and values a climate supporting equal opportunity and difference among its members.

■ One tenure-track assistant professor position in UW-Madison, department of statistics, w/research interest in theory and/or methodology, beginning August 2012. PhD in statistics or closely related quantitative field required prior to starting. For more information, visit www.stat.wisc.edu/Employment. Send letter of application, vitae, research, three reference letters to Search Committee, Statistics PVL# 71513, UW-Madison, 1300 University Ave., Madison, WI 53706 by December 15, 2011, for full consideration. University of Wisconsin is an AA/EOE. Women & minorities encouraged to apply.

■ One tenure-track position (any level) in UW-Madison, department of statistics and Morgridge Institute for Research, w/ research interest in theory and methodology, beginning 8/2012. PhD in statistics or/related quantitative field required prior to starting. For more information, visit www.stat.wisc.edu/Employment. Send letter of application, vitae, research, three reference letters to Search Committee, Statistics PVL #71183, UW-Madison, 1300 University Ave., Madison, WI 53706 by 12/15/2011 for full consideration. UW Madison is an AA/EOE. Women & minorities encouraged to apply.

International

■ Yale-NUS College in Singapore announces new faculty positions at all ranks and areas of the social and natural sciences. Field is open; candidates will contribute to an interdisciplinary common curriculum in the liberal arts. New faculty appointments start either in mid-2012 or mid-2013. Salary and leave policies competitive at an international level. For

FRED HUTCHINSON CANCER RESEARCH CENTER

A LIFE OF SCIENCE

Located in Seattle, Washington, the Fred Hutchinson Cancer Research Center is a world-renowned research institution. The Biostatistics and Biomathematics Program at the Fred Hutchinson Cancer Research Center's Division of Public Health Sciences is recruiting a faculty member in statistical genetics at the Assistant Member level, titles that correspond to Assistant professor at a university. The appointee will be able to interact with an unusually strong group of faculty in statistical genomics and have the opportunity to collaborate with top research in the field.

We are seeking a candidate who will establish a dynamic research program consisting of independent and collaborative research projects pertinent to the mission of the Fred Hutchinson Cancer Research Center. We are looking for researchers with an interest in population genetics, statistical methods for genetic association studies, high-throughput technologies, and other areas in statistical genetics or genomics.

Applicants should have a Ph.D. or equivalent advanced degree in statistics, biostatistics, statistical genetics or another quantitative area with a strong record of, or high potential for, independent methodological research and scientific collaboration. We are looking for a candidate with strong communication and collaboration skills.

An affiliate appointment at the Assistant Professor level in a relevant department at the University of Washington may be possible, depending on mutual interest and involvement with university activities.

A letter summarizing independent and collaborative biostatistical and genetic experience and research interests, a complete CV, and four reference letters should be sent electronically (PDF preferred) to Sandy Ormbrek (sormbrek@fhcrc.org). Applications should be received by January 1, 2012 to assure consideration. Later applications may also be considered if the position is not yet filled. The Fred Hutchinson Cancer Research Center and the University of Washington are equal opportunity/affirmative action employers. The two institutions are building culturally diverse faculty and strongly encourage applications from female and minority candidates.

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THE CHINESE UNIVERSITY OF HONG KONG

Applications are invited for:-

Department of Statistics

(1) Professor

(Ref. 1112/026(060)/2) (Closing date: December 1, 2011)

The Department invites applications for a faculty post at the level of Professor. Applicants should have (i) a PhD degree; and (ii) strong research and teaching records in statistics. For this senior level appointment, applicants should have a distinguished research record commensurate with the departmental interest, demonstrated administrative experience including mentoring junior faculty members and postgraduate students, demonstrated success in solicitation of external funding and a distinguished teaching record at undergraduate and postgraduate levels. Applications will be accepted until the post is filled.

(2) Professor(s) / Associate Professor(s) / Assistant Professor(s)

(Ref. 1112/027(060)/2) (Closing date: December 1, 2011)

The Department invites applications for faculty post(s) at all levels. Applicants should have (i) a PhD degree; and (ii) strong research and teaching records in statistics. The appointee(s) will (a) teach undergraduate and postgraduate courses in statistics and risk management; (b) conduct high quality research; and (c) assist in the administration of the Department. Applicants with exceptionally strong credentials may be considered for appointment at the higher levels as Professor or Associate Professor. Applications will be accepted until the post(s) are filled.

Salary and Fringe Benefits

Salary will be highly competitive, commensurate with qualifications and experience. The University offers a comprehensive fringe benefit package, including medical care, a contract-end gratuity for appointments of two years or longer, and housing benefits for eligible appointees. Further information about the University and the general terms of service for appointments is available at <http://www.cuhk.edu.hk/personnel>. The terms mentioned herein are for reference only and are subject to revision by the University.

Application Procedure

Applications (comprising a full curriculum vitae, a detailed list of publications and if available, abstracts of selected published papers) should reach the Personnel Office by post or by fax (no. (852) 3943 1462) by the closing date. The Personal Information Collection Statement will be provided upon request. Please quote the reference number and mark 'Application – Confidential' on cover.

application process details, see www.ync.nus.edu.sg. The college values diversity and is committed to equality of opportunity.

■ Assistant professorships. University Bocconi, Milan, Italy, department of decision sciences invites applications at the junior faculty level in the areas of applied mathematics/optimization, applied statistics and econometrics, decision theory and game theory, probability and theoretical statistics, quantitative operations management. PhD required and proof of having established potential in research and teaching. Application online at www.unibocconi.eu/jobmarket. Deadline: December 4, 2011. EOE. ■



City University of Hong Kong is a dynamic, fast-growing university that is pursuing excellence in research and professional education. As a publicly funded institution, the University is committed to nurturing and developing students' talent and creating applicable knowledge to support social and economic advancement. Currently, the University has six Colleges/Schools. Within the next two years, the University aims to recruit **100 more scholars** from all over the world in various disciplines, including **science, engineering, business, social sciences, humanities, law, creative media, energy, environment**, and other strategic growth areas.

Applications and nominations are invited for :

Chair Professor/Professor/ Associate Professor/Assistant Professor Department of Systems Engineering and Engineering Management [Ref. A/651/09]

The Department of Systems Engineering and Engineering Management is looking for talented faculty in emerging and interdisciplinary research areas such as risk engineering and management, quality and reliability engineering, system informatics and data mining, logistics and supply chain management, energy and environment, and other IE/OR related areas.

Requirements : A PhD in a highly relevant discipline with a promising research record and strong teaching ability. Good academic credentials and excellent communication skills are required. Successful candidates are expected to develop new research directions and new courses.

(Information about the Department is available at <http://www.cityu.edu.hk/seem/>.)

Salary and Conditions of Service

Remuneration package will be very attractive, driven by market competitiveness and individual performance. Excellent fringe benefits include gratuity, leave, medical and dental schemes, and relocation assistance (where applicable). Initial appointment will be made on a fixed-term contract

Information and Application

Further information on the posts and the University is available at <http://www.cityu.edu.hk>, or from the Human Resources Office, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong [Fax : (852) 2788 1154 or (852) 3442 0311/email : hrojob@cityu.edu.hk].

Please send the nomination or application enclosing i) a current curriculum vitae with evidence of teaching ability in English, and ii) a concise (up to 1 page) statement of research interests and teaching philosophy and at least three reference to Head, Department of Systems Engineering and Engineering Management, or e-mail to "sehead@cityu.edu.hk". **Applications and nominations will receive full consideration until the positions are filled.** Please quote the reference of the post in the application and on the envelope. The University reserves the right not to fill the positions. Personal data provided by applicants will be used strictly in accordance with the University's personal data policy, a copy of which will be provided upon request.

The University also offers a number of visiting positions through its "CityU International Transition Team" for current graduate students and for early-stage and established scholars, as described at http://www.cityu.edu.hk/provost/announcement_20110221.htm.

City University of Hong Kong is an equal opportunity employer and we are committed to the principle of diversity. We encourage applications from all qualified candidates, especially those who will enhance the diversity of our staff.

Division of Biostatistics
School of Public Health - University of Minnesota

ASSISTANT/ASSOCIATE/FULL PROFESSOR OF BIOSTATISTICS

The Division of Biostatistics, School of Public Health, at the University of Minnesota is announcing two openings for tenured or tenure-track faculty positions at the Assistant, Associate, or Full Professor rank.

We are especially interested in individuals with academic and research records in (1) Bayesian and other adaptive methods for clinical trials, safety analysis and related applications, and (2) structural equation modeling (SEM), causal analysis, and other methods useful for accounting for latent factors in observational data. Partial salary support for the first position will be provided by Medtronic, Inc., an industry leader in using Bayesian and other adaptive methods in medical device development. We will however consider applications from candidates in other important related research areas, as well as those with PhDs in areas besides biostatistics. The Division has significant strengths in the broad areas targeted by this search, with several faculty members having active research agendas and both methodological and applied funding in areas such as spatial epidemiology, environmental health, cancer control, adaptive clinical trials, and bioinformatics. These grants complement our larger, more collaborative research projects with investigators in the University's Academic Health Center. At the present time, the Division has statistical and data coordinating centers for NIH-funded clinical trials networks in HIV/AIDS, and in lung and cardiovascular disease.

Applications received before December 15, 2011, will be considered for a first round of interviews. However we will continue to accept applications until the positions are filled.

The Division of Biostatistics (www.sph.umn.edu/biostatistics) currently includes 36 graduate faculty and 65 staff. The Division offers MS, MPH, and PhD degrees, and interacts in teaching, advising and research with the University of Minnesota School of Statistics. Current research in statistical methodology includes survival analysis, longitudinal models, generalized linear models, statistical genetics, genomics and proteomics, analysis of spatial and longitudinal data, Bayes and empirical Bayes methods, causal modeling, computer-intensive methods such as Markov chain Monte Carlo, and statistical data mining.

Besides HIV/AIDS, lung and cardiovascular disease collaborations, the Division collaborates actively on research in cancer prevention and treatment, dentistry and periodontology, environmental and occupational health, health policy, chronic disease care and smoking prevention. Multi-year grants and contracts for various Divisional projects total over \$150 M.

A successful candidate will also be responsible for teaching and advising students at the graduate level. At the present time, the Division has 47 graduate students (27 MS and 20 PhD). The salary range for these faculty positions will be very competitive, and the University of Minnesota offers excellent fringe benefits.

Applicants should submit a cover letter, current curriculum vitae, and the names of at least three references online at <https://employment.umn.edu/applicants/Central?quickFind=97965>. Please reference requisition # 174298. In addition, three letters of recommendation should be sent to: Biostatistics Search Committee, Division of Biostatistics, A460 Mayo Building, MMC 303, 420 Delaware Street SE, Minneapolis, MN 55455. For questions contact Sally Olander (brown198@umn.edu).

The University of Minnesota is an equal opportunity educator and employer.

AMERICAN STATISTICAL ASSOCIATION'S FELLOWSHIP and RESEARCH PROGRAMS

The American Statistical Association, with support from the National Science Foundation, has partnered with several national agencies to provide research fellowships to individuals who have an academically recognized research record and considerable expertise in their area of proposed research.

- The ASA/NSF/BEA Research Fellowship Program** allows research fellows to come to the Bureau of Economic Analysis, one of the world's leading statistical agencies, to use BEA data and interact with agency staff. BEA produces closely watched economic statistics that influence decisions affecting monetary policy, tax and budget projections, and business investment plans. Applications for fellowships must be emailed by December 15. More information can be found at www.amstat.org/careers/pdfs/BEA.pdf.
- The ASA/NSF/BLS Research Fellowship Program** seeks fellows to conduct research in residence at the Bureau of Labor Statistics (BLS), use BLS data and facilities, and interact with BLS staff. There is more information available at www.bls.gov/osmr/asa_nsf_bls_fellowship_info.htm or in our brochure at www.amstat.org/careers/pdfs/ASANSFBLSFellowshipProgram.pdf. Applications for fellowships must be emailed by January 27, 2012.
- The ASA/NSF/Census Research Fellowship Program** helps bridge the gap between government and academic science by bringing researchers closer to the production of data sets relevant to their research. The program allows for senior statisticians, social scientists, computer scientists, geographers, and others to come to the U.S. Census Bureau as research fellows for 6-12 months to use bureau data sets and interact with bureau staff. Application for fellowships must be emailed by December 10. More information is available at www.amstat.org/careers/pdfs/ASANSFCensusBureauResearchProgram.pdf.

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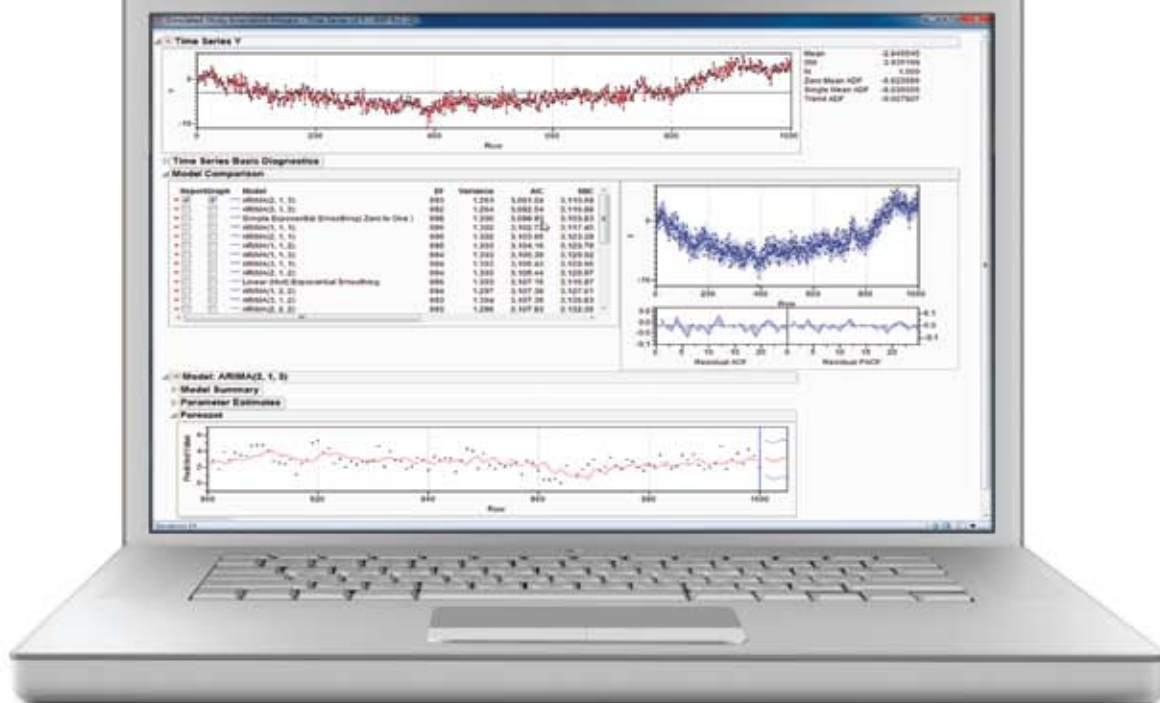
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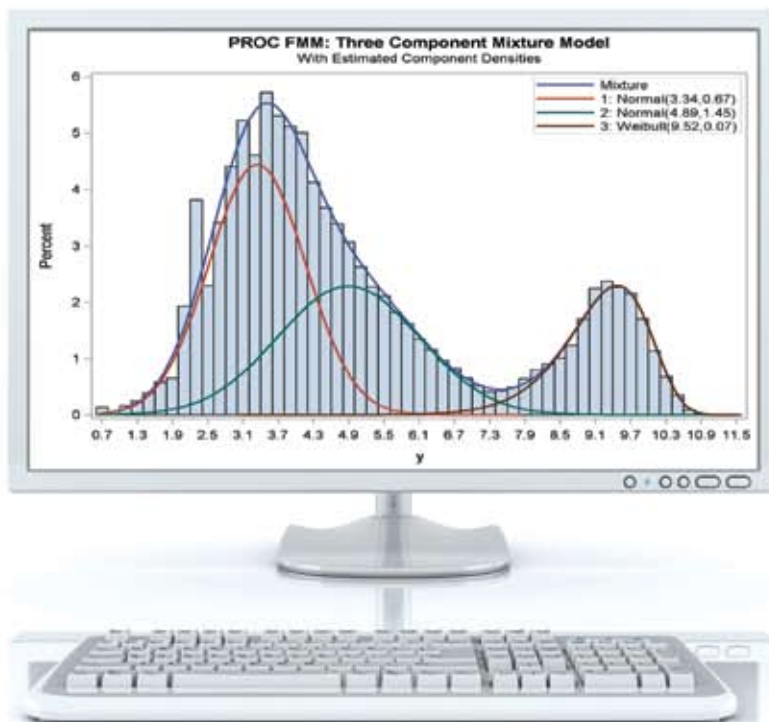
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