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AMSTATNEWS

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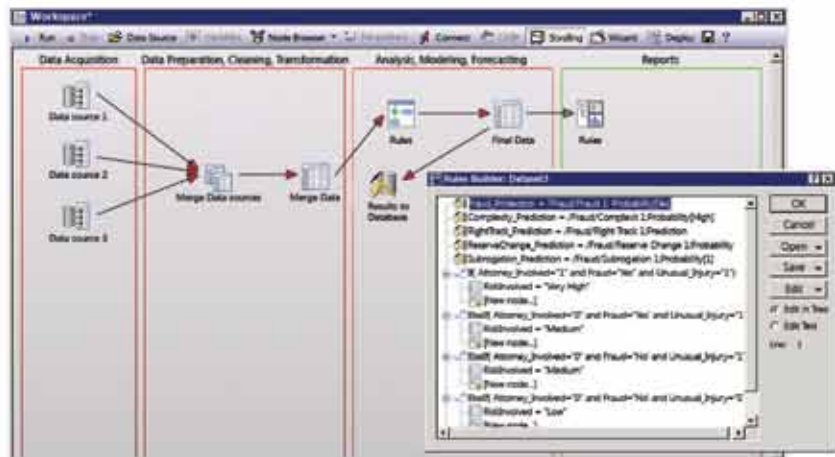
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This column is written for statisticians with master's degrees and highlights areas of employment that will benefit statisticians at the master's level. Comments and suggestions should be sent to Megan Murphy, *Amstat News* managing editor, at megan@amstat.org.



Berthelson

Contributing Editors

Meredith Berthelson is pursuing her PhD in interdisciplinary studies at the University of Montana. She earned her master's of interdisciplinary studies at the University of Montana, and her undergraduate career was spent at Montana State University, where she earned her BS in mathematics.



Pearl

Jennifer Slimowitz Pearl serves as a program director in the Division of Mathematical Sciences at the National Science Foundation. She earned her PhD in mathematics, specializing in symplectic geometry from the State University of New York at Stony Brook, and her BS in mathematics from Duke University.

Online Articles

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

Samuel Kou received this year's Committee of Presidents of Statistical Societies (COPSS) President's Award for his outstanding research contributions and service to the field of statistics. Kou spoke to Bhramar Mukherjee about winning the award. Read what he had to say online at <http://magazine.amstat.org>.

The American Statistical Association/National Council of Teachers of Mathematics Joint Committee on Curriculum in Statistics and Probability sponsored a Beyond AP Statistics (BAPS) workshop during the annual Joint Statistical Meetings. Read the details at <http://magazine.amstat.org>.

The ASA sponsored a two-day Meeting Within a Meeting (MWM) statistics workshop for middle- and high-school mathematics and science teachers in conjunction with the 2012 Joint Statistical Meetings. To find out more, visit *Amstat News* online at <http://magazine.amstat.org>.

The department of statistics at Rajshahi University in Bangladesh will host the International Conference on Statistical Data Mining for Bioinformatics, Health, Agriculture, and Environment from December 22–24 in Rajshahi, Bangladesh. The registration deadline is November 20. For more information, visit *Amstat News* online at <http://magazine.amstat.org>.

The editors of the peer-reviewed *Journal of Research in Economics and International Finance* (JREIF) are accepting original articles in basic and applied research and case studies and critical reviews, surveys, opinions, commentaries, and essays. Submit your manuscript(s) to jreif@interesjournals.org. A guide for authors and other details are available at <http://interesjournals.org/JREIF/Guide%20to%20Authors.htm>.

The Division of Mathematical Sciences (DMS) at the National Science Foundation launched a program last October called Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences (CDS&E-MSS). Awards have been made for the first round of competition. The submission window for the current year is November 25 to December 10. To find out more, visit *Amstat News* online at <http://magazine.amstat.org>. To read the program description, visit www.nsf.gov/funding/pgm_summ.jsp?pims_id=504687.

Sara Murphy, series acquisitions editor for the ASA-SIAM Series on Statistics and Applied Probability, helps authors determine the publishing route they want to pursue by outlining what the series has to offer. Visit *Amstat News* online at <http://magazine.amstat.org>.

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Service-Oriented Statistics: What Can Students Do?

Glen DePalma is a PhD student in the department of statistics at Purdue University and the director of StatCom. His research interests include applied, Bayesian, and computational statistics, as well as distributed computing.

Doug Baumann is a PhD student in the department of statistics at Purdue University. His research focuses on the annotation-informed integration of "omic" data in next-generation sequencing.

Jeff Nisen is a fourth-year PhD student in the department of statistics at Purdue University. His research focuses on the development of novel estimation and calibration procedures for stochastic models used in the financial engineering, risk management, and econometrics fields.

Libo Wang is a PhD student in the department of statistics at Purdue University. Her research focuses on the application of linear mixed models in genome-wide association studies.

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The Future of Statistical Publications

The ASA will celebrate its 175th anniversary in 2014. In preparation, column "175"—written by members of the ASA's 175th Anniversary Steering Committee and other ASA members—will chronicle the theme chosen for the celebration, status of preparations, activities to take place, and, best yet, how you can get involved in propelling the ASA toward its bicentennial.



Banks

Contributing Editor

David Banks is a professor of the practice of statistics at Duke University. He was coordinating editor of the *Journal of the American Statistical Association*; editor of the *Journal of Transportation Statistics*; and associate editor for *Statistical Methodology*, *American Mathematical Monthly*, *STAT*, *The Electronic Journal of Statistics*, and *Environmetrics*.

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Professional Opportunities

Career Success Training for Statisticians: A Progress Update



From left: Rebecca Nichols, Rebecca Brafman, Bob Starbuck, and Ofer Harel listen to Jeanine Buchanich during the Train the Trainer workshop at the 2012 Joint Statistical Meetings in San Diego, California.

One of the presidential initiatives I described in my January column was the formation of a workgroup to develop career-building courses that enable statisticians to become more successful. In this column, the workgroup chair, Bob Starbuck, explains how this effort has evolved, how you can contribute, and how you will benefit.

The Need for Career Success Training

Early in 2011, I invited a group of business executives to meet at ASA headquarters for a discussion of the professional development needs of their statistical staffs. When these executives were asked how the ASA might meet those needs, their top request was training in career success factors such as communication, leadership, and teamwork. All of them said, “Our statisticians need the ability to explain the relevance and impact of their work to the rest of the organization.”

In recent years, many of our members have expressed similar needs for career success training designed specifically for statisticians. University programs in statistics are the ideal place for this training to begin. I encourage statistics departments to consider offering the types of courses described in “Preparing Biostatisticians for Leadership Opportunities” at <http://magazine.amstat.org/blog/2012/02/01/leadershipncarolin> and “Scientific Course Strengthens Students’ Communication Skills” at <http://magazine.amstat.org/blog/2012/02/01/pittsburgleaders>. Today, however, our association has the opportunity to offer training that will benefit the most members.

To develop this training, I asked Bob Starbuck to lead a workgroup whose current members are Karla

Ballman, Jeanine Buchanich, Janet Buckingham, Ron McRoberts, Gary Sullivan, Erin Tanenbaum, and Jennifer Van Mullekom. For an update on their progress, here are Bob’s responses to some questions I recently asked him.

What courses are you pursuing?

The workgroup first met at the 2011 Joint Statistical Meetings (JSM) in Miami Beach, Florida. We created a list of 15 topics we thought had an important impact on the career of a statistician. Knowing we could not simultaneously tackle all these topics, we narrowed the list to the following four courses:

- Presentation Skills
- Influence and Leadership Skills
- Personality Training and Team Building
- Career Planning

Who is the audience?

The target audience is ASA members who are in the early to middle stages of their careers and who stand to gain the most from these courses. When a course is conducted on a university campus, we also expect students in the audience. And when a course is conducted at a business facility, we expect statisticians who are not necessarily ASA members.

How do you plan to deliver the courses?

The course on presentation skills has been developed for a classroom setting. For other topics, a webinar or webcast might be a good medium.



Robert Rodriguez



Jennifer Van Mullekom during the Train the Trainer event at the 2012 Joint Statistical Meetings in San Diego, California

Will the courses be affordable?

We are planning with ASA staff to make the courses affordable and accessible to the target audience. To minimize the cost of courses taught in classrooms, we are training a cadre of ASA volunteer instructors who are located in regions where many ASA members live and work. That will allow one-day courses to be offered locally, and it will reduce registration fees when instructor travel is not needed.

Because the courses will be taught by ASA volunteers, they will cost substantially less than corresponding commercially available courses and deliver content that is tailored for professional statisticians.

How are you creating course content?

Our original workgroup realized that, collectively, we did not possess enough material to create the courses on our own. We decided to look outside of our group for people who could contribute course content. After we became aware of a course on presentation skills taught at the University of Pittsburgh by Jeanine Buchanich, we enlisted her participation.

We also became aware of a leadership development program created at Eli Lilly for their Statistics and Advanced Analytics group. Gary Sullivan of Eli Lilly joined the workgroup and is providing significant input for the influence skills course.

We are still searching for material for courses in personality training, team building, and career planning. If you have experience in these areas and would like to contribute, please contact me (Bob Starbuck) at RRS49@nc.rr.com.

How are instructors being trained?

Course instructors will come primarily from the ASA membership. For each course, we will prepare a

train-the-trainer course conducted periodically to create a cadre of volunteer instructors.

The first train-the-trainer course, delivered at JSM 2012, focused on teaching presentation skills. Twenty future trainers participated in this one-day course, which was led by Buchanich and Van Mullekom (DuPont).

Participants were highly enthusiastic about the value of the material they learned to present. One described the content as “well prepared, very informative, with a large amount of useful information.” Because the participants, themselves, were highly experienced presenters, they contributed to the training by suggesting ways to improve teaching presentation skills.

In addition to preparing participants to be volunteer instructors, the training will pay off in their own work. One attendee concluded, “This session has given me excellent ideas for how to teach my MS and PhD students in statistics to be better communicators.”

What is the process for hosting a course?

ASA staff is preparing a web page that will indicate geographical areas in which course instructors are available. The web page will provide steps that ASA chapters, sections, and other groups—such as companies and university departments—can follow to host a course in their area. It also will announce train-the-trainer opportunities.

Host groups will be responsible for finding training rooms, covering the cost of refreshment breaks and lunches, and publicizing courses to their members. ASA staff will provide support for online registration, downloading course materials, and publicizing the course outside the local area.

If you would like to attend a course in your area, contact the leaders of your local group or chapter (www.amstat.org/chapters/chapterofficers.cfm) and ask them to host the course.

Will courses be available at conferences?

A course on presentation skills will be offered at the Conference on Statistical Practice in New Orleans this coming February. We are considering ways to offer courses at future conferences.

A Successful Start

I am grateful to Bob Starbuck, the members of the workgroup, and the initial volunteer instructors for launching our career success training. Please sign up for this training and encourage others to participate. It will make a difference in your career and the careers of many others! ■

Robert W. Rodriguez

MEMBER SPOTLIGHT

Susan Gruber

For many, the path to becoming a statistician is a circuitous one, and that was certainly the case for me. At the age of 45, with a history of job titles including chemist, computer scientist, teacher, and mom, I entered the MPH program in epidemiology and biostatistics and, from there, the PhD program in biostatistics at the University of California at Berkeley School of Public Health. The defining moment actually occurred more than a decade earlier.

When my oldest son was born, we were told in no uncertain terms that the baby must never be put to sleep on his back because it would increase the risk of death due to aspiration. Fast-forward three years to the birth of my second child, when we were unequivocally advised to *always* place the baby on his back to reduce the risk of SIDS. How could medical decisionmakers have reversed course so quickly on an activity we have been doing since the dawn of humanity? And today, 20 years later, are we confident that the current recommendation is the correct one?

These questions speak to the heart of what we do as statisticians and highlight a debate most of us have had with others or ourselves at some point. Decisions must be made and actions must be taken in the face of incomplete information. As statisticians, are we bound to always deliver an estimate, or are there times when the appropriate course of action is to conclude the data do not contain sufficient information to reliably estimate the desired quantity? To what extent are we responsible for the conclusions drawn from estimates we report? From a layman's perspective, in the absence of reliable data on all-cause mortality stratified by sleeping position, should I have been admonished to keep my oldest son from sleeping on his back? Can a child aspirating vomit and dying in his sleep teach us anything about caution in translating statistical evidence into a one-size-fits-all recommendation? What biostatisticians do has real implications for real people.

I greet the recent trend toward personalized medicine with enthusiasm. Treatment recommendations that are conditional on covariates are likely to be more effective. Babies who have acid reflux are presumably at higher risk of mortality when laid on their backs than babies without. Should that be mentioned in instructions given to new parents? Or, in reality, might that make matters worse by piling information overload on top of parental sleep deprivation? The problems are complex and perhaps best addressed through a process of asking clear questions, collecting high-quality data, and applying causal inference methodology to find answers where there is support in the data.



Gruber

In 2009, I had the privilege of visiting a group of U.S. Food and Drug Administration (FDA) employees with my PhD adviser, Mark van der Laan. The people in the room were the ones who approve or deny use of drugs, write the warning labels, and study post-market data on adverse events. Their determinations rely on statistical analyses of incomplete data, and any decision—even one to postpone a final decision—has health consequences for the population. I'm not sure how many of us outside government understand that each of these individuals shoulders a weighty public service burden. I certainly had not, and I found it heartening to witness.

In 2012, I once again had the privilege of going to a meeting of a consortium of FDA, industry, and academic researchers, this time with Jamie Robins, who along with Miguel Hernán, is mentoring me in my current role as a postdoctoral research fellow in the department of epidemiology at the Harvard School of Public Health. Scientists, economists, policymakers, and medical practitioners are increasingly turning to large observational data sets to find answers to causal questions. There are enormous computational, philosophical, statistical, and mathematical challenges, and interdisciplinary teams are rising up to meet them. I see this as another cause for optimism and an indication we are on the right path.

The turns my life has taken since beginning this journey in 2005 amaze me. When I first dreamed up the idea of going back to school, I almost didn't do it, because I thought I had waited too long. But it turns out I hadn't. Given my background, it is not surprising that my research focuses on methodological advances in causal effect estimation. I am thrilled to find myself part of the burgeoning community of biostatisticians working on causal inference. In the words of poet Louise Driscoll, "Hold fast your dreams!" ■

ASA Commends NSF for Initiative, Commitment to Increasing Statistics Profile

During the August meeting of the Mathematical and Physical Sciences Advisory Committee (MPSAC), National Science Foundation (NSF) Assistant Director Ed Seidel announced in an initiative to “examine funding for statistical sciences research at NSF including organizational alternatives and new initiatives.” He also affirmed the NSF’s “strong commitment to the statistical sciences.”

To demonstrate the commitment, Seidel noted that, whenever appropriate, NSF would specifically mention statistics alongside mathematics in budget requests and form a subgroup of the MPSAC in

cooperation with members of other NSF advisory committees and community members.

ASA Executive Director Ron Wasserstein responded by commending the NSF leadership for its commitment to recognizing the statistical sciences and the contributions statisticians are making to NSF’s mission. Wasserstein also said that, “raising the profile of statistics within NSF is an important step for our scientific discipline to fulfill its potential.”

Seidel’s announcement came in response to a proposal last fall to rename the Division of Mathematical Sciences (DSM) to the division of mathematical and statistical sciences. Seidel said the name will stay the same, but noted in his initiative that “the recent vigorous discussions in the relevant communities, with the MPSAC, and within NSF, have led to a better understanding of the critical and expanding role of the statistical sciences.”

A detailed report on the name change—written by a subcommittee of MPSAC—also was presented at the meeting. The report summarizes the comments received from the mathematical and statistical societies and individuals in the science community.

Participating in the meeting by phone, DMS Director Sastry Pantula thanked the committee for the report and said the name change was originally proposed to recognize the distinct discipline of statistics. “I am happy that the process opened worthwhile discussions within the communities,” he said. “I look forward to working with both mathematical and statistical sciences communities to look for collaborative opportunities for future. There is strength in the union, and there is strength in numbers.”

To read Seidel’s memo and the report on the name change, visit the NSF Advisory Committee meeting’s web page at www.nsf.gov/events/event_summ.jsp?cntn_id=124926&org=NSF. To read the ASA statement, visit www.amstat.org/about/pressreleases.cfm. For a detailed report on the meeting, read the blog post written by ASA Science Policy Director Steve Pierson at <http://tinyurl.com/9owo2s2>. ■

ISS-2012 on Longitudinal Data Analysis a Success

Brajendra C. Sutradhar, Memorial University

The International Symposium in Statistics (ISS) on Longitudinal Data Analysis Subject to Measurement Error, Missing Values, and/or Outliers took place at Memorial University from July 16–18. Fifty-one delegates from countries including Brazil, Switzerland, Spain, The Netherlands, Mauritius, the United States, and Canada attended the meeting, which covered three specialized research areas for longitudinal data analysis.

Included were an academic program and various social events, including a barbeque, symposium banquet, and local scenic bus tour. The welcome address was given by Ray Gosine, associate vice president research at Memorial University, followed by a plenary talk given by Brajendra Sutradhar on successes and further challenges in longitudinal data analysis when data are subject to measurement error.

Five invited speakers covered the three areas of the meeting, and contributed papers were presented by 10 speakers, including four graduate students. Select papers will be published as lecture notes in Springer’s lecture note series.

Sutradhar organized the symposium, which was sponsored by Memorial University, the Statistical Society of Canada, the Institute of Mathematical Statistics, and the Atlantic Association for Research in the Mathematical Sciences. More information can be found at www.iss-2012-stjohns.ca.

Statistical Modeling to Address the Problem of Illegal Immigration

David Salsburg

The problem of immigration reform resembles a situation that those of us who have engaged in statistical consulting often find. One member of the team working on the problem insists one aspect be addressed first when that aspect is ill defined and often impossible to resolve. In the public discussion of immigration reform, there are politicians who insist we must first “secure our borders.” Over the years, different attempts by the federal government to improve on border security have failed to meet this ill-defined objective in the eyes of those who insist upon it.

Statistical thinking can help defuse such a stalemate. A simple model can help focus the arguments around the parameters of that model and can be resolved with adequate data—data that are often already on hand.

Immigrants who are illegally in the United States arrive in several ways. Some cross the Mexican border, some arrive legally but overstay their visas, and some are put ashore without having gone through customs. The U.S. Census Bureau has estimates of the proportion that belong in each category. So, any discussion of “securing the borders” has to deal with these three aspects. If, as I gather from reading newspaper accounts, the vast majority is about equally split between the first two, the problem becomes one of constructing two models.

In each case, suppose we model the probability of entering illegally as a function of the effort expended to prevent it. It is usually convenient to quantify the effort in terms of monetary cost. Once we have some decent bounds on the probability of entrance as a function of cost, we can multiply those probabilities by expected numbers of those seeking to cross and the discussion can become one of how much we are willing to spend to get to a minimal specific number of illegal entries.

Consider the question of crossing the Mexican-U.S. border. The Communist governments of Eastern Europe have provided us with one end of that probability function. They erected high walls with barbed wire in cities. Elsewhere, a no-man’s land was plowed up and sowed with land mines. There were high cyclone fences on either side and guard towers ever couple of kilometers with orders to shoot to kill anyone who attempted to cross.

We would never resort to this in the United States, but the number of people who managed to escape in spite of these structures provides us with one basic bit of information. This is the probability that someone will cross even the most tightly controlled border.

The Israeli fence blocking off the West Bank provides another way to estimate minimum probability. Newspaper reports suggest that 2–3 would-be terrorists manage to cross each week in spite of the high-tech nature of the fence.

We can use statistical methods to get a handle on the probability that the border will be crossed for any given amount of effort put into “securing” that border. We start with an estimate of how many would cross if there were no controls. Then, we can model the process so we have the decrease in probability of crossing as a function of the amount of money put into the effort.

We have data from the last few years, when attempts were made to strengthen the border crossings, that would enable us to make those calculations. Like any other statistical approach, we would be able to estimate the most likely relationship between money expended and reduction in probability of crossing and we would have a measure of the uncertainty involved. For instance, we might learn that an increase in enforcement cost by 10% will decrease the probability of crossing from 80% to between 68% and 52% when enforcement is first started, but will decrease a probability of crossing of 40% only down to something between 27% and 39%. These hypothetical numbers describe a function with diminishing return, a situation usually found in circumstances like this.

Arguments will still be there, but the arguments will now be over the validity of the statistical estimates, the level of uncertainty that exists about them, and the amount of effort the nation can afford. If there are arguments over the validity of the data used to estimate the parameters, the model can be expanded by the use of Bayesian methods that force the contenders to quantify their arguments.

The problem of expired visas could be modeled the same way. It would be necessary to model each type of visa separately, and there may be a problem in finding enough reliable data, but the basic methodology would be the same. ■

In this inaugural article for the series “Statistics for Policymakers,” David Salsburg provides an illustration of how statistical thinking can address the U.S. immigration stalemate. *Amstat News* is inviting articles by ASA members to share what they think policymakers should know about statistics. View details about this series at <http://magazine.amstat.org/blog/2012/07/01/statthinking>.

Statistician Greg Ridgeway

New Deputy Director of National Institute of Justice

A *mstat News* invited new National Institute of Justice (NIJ) Deputy Director Greg Ridgeway to respond to the following questions about his role in this position. Ridgeway, an ASA member, also speaks to what he, as a statistician, brings to NIJ's strategy to strengthen its science mission.

How did you get involved in criminal justice research?

I started at the RAND Corporation pretty much fresh out of graduate school. I found that many statisticians were already doing good work in public policy areas such as health, education, and national security. However, I found a near vacuum in criminal justice research and a lot of opportunities for statistical work. Early on,



Greg Ridgeway earned his PhD in statistics from the University of Washington and his BS in statistics from California Polytechnic State University, San Luis Obispo. Before joining the National Institute of Justice,

Ridgeway was a statistician at the RAND Corporation and directed RAND's criminal justice research program. He specializes in the analysis of criminal justice issues, most prominently policing, gun violence prevention, and drug policy.

I thought my analyses of gun violence in East Los Angeles and racial profiling were having an impact. And that led to new opportunities and more criminal justice research questions. The justice system continues to be a topic with a lot of room for more statisticians.

What about this position appealed to you?

There were three primary reasons I took the job. First, NIJ is the lead federal agency for criminal justice research. It has a lot of influence on which direction the field goes. The idea of having a prominent role in that process was very appealing to me. Second, I think the criminal justice system is a fascinating world in which to conduct research and, while I could have continued my research at RAND, I saw moving to NIJ as an opportunity to be exposed to new people and new ideas. Even my RAND colleagues said that spending some time in government is essential to really understand public policy. Already, I have learned a lot. Last, both current and former NIJ staff who I talked to thought I had a lot to contribute to NIJ. It is always nice to feel needed.

The 2010 National Academies (NAS) Report, "Strengthening the National Institute of Justice," made many recommendations to strengthen the science mission and research infrastructure of NIJ, noting resource, autonomy, and authority challenges. Did that report's findings play into your decision to accept the position?

The NAS report was released just before John Laub, NIJ's current director joined and provided a good starting place for him to examine and

map out NIJ's future. The creation of my position was part of his strategy to strengthen NIJ's science mission, a way of securing a senior scientific leader. I had been an NIJ grantee for many years and thought I knew NIJ quite well. However, the NAS report showed the complicated environment in which NIJ and its staff work. Besides the resource constraints, which will always exist, NIJ is unique among federal science agencies in that it also has a mission to serve the practitioner community. That was very much the kind of organization I wanted to join.

Why do you think they hired a statistician? What about your background and experience appealed to NIJ?

I'm sure they did not set out to find a statistician. That is just an added bonus! For me, being a statistician was a pathway. At RAND, I worked on dozens of projects on gangs, guns, drugs, policing, but data analysis was the theme across all of these. While some of these analyses were ending up in statistical journals, I was also testifying at city council meetings about my findings; advising major city police chiefs; and exchanging ideas with judges, attorneys, and advocates. In addition, for the last five years, I directed RAND's criminal justice research program and gained a lot of experience in managing personnel, budgets, and strategies in a research organization. I think the combination of my academic research and practical and management experience made me a good fit for the job.

What is your role as deputy director?

I am responsible for NIJ's scientific offices covering social science, technology and physical sciences, and forensic science. I work closely with the office directors and their staffs on issues big and small. The most challenging questions are about how NIJ can affect and improve our nation's criminal justice system. What issues need greater attention? What kinds of projects should we invest in? Which projects show the greatest promise? Where do we need to take more risks? Along the way toward answering these questions, we need to

constantly tune into the input of practitioners, cultivate the next generation of criminal justice scholars, maintain a fair and transparent review process, and be good stewards of public dollars.

Describe some of your specific goals and challenges as you begin your tenure.

NIJ's greatest strategic asset is its ability to make investments in ideas. Therefore, almost all of our challenges revolve around how to get the best return on those investments. We need to have a good process for synthesizing the key concerns that practitioners face in police, courts, and corrections so we're investing in the right ideas. We need to make sure our review process is fair, transparent, and efficient. We need to take some risks on ideas that might take a decade to mature. And last, we need to make sure the results of our investments are having an impact on the field. There are several examples of NIJ successes in each of these steps, and I will be working toward improvements in each.

Other than you and the statisticians at the Bureau of Justice Statistics, we're not aware of many other statisticians within the DOJ science-related units. Does your hiring signal an increasing appreciation for statisticians across the DOJ?

I have never had the sense that there is a lack of appreciation for statisticians, but rather that there are few statisticians thinking about justice issues. Admittedly, numerous fields such as health care and pharmaceuticals, finance, and environmental sciences compete to attract statisticians. I would like to attract more statisticians to justice system research. Forensic science, for example, is a key area in which there is much room for new statistical analysis and research. The NAS report recommended that NIJ "nurture and grow the pool of researchers involved in criminal justice research." I will make sure the statistical community is part of that pool. ■

NSF Renews SAMSI for Five Years

The National Science Foundation (NSF) recently renewed the Statistical and Applied Mathematical Sciences Institute's (SAMS) grant for five years, making this SAMS's second renewal.

SAMS is one of eight mathematical institutes funded by the NSF's Division of Mathematical Sciences, but this is the only one that focuses on statistics and applied mathematics. It was originally founded in 2002 and is now celebrating its tenth anniversary.

The grant is a collaboration of Duke University, North Carolina State University (NCSU), The University of North Carolina at Chapel Hill (UNC), and the National Institute of Statistical Sciences (NISS) in conjunction with the William Kenan Jr. Institute for Engineering, Technology, and Science.

"The renewal of our funding is a tribute to the incredible commitment to SAMS by the whole community, our partner institutions, the national leadership in statistics and applied mathematics, everyone who has served SAMS as a directorate member or program leader, and—more broadly—all the people who have visited SAMS and participated in

our research over the years," said Richard Smith, SAMS director.

Over the 10 years, SAMS's programs have grown, adding summer programs in 2006 and increasing its education and outreach programs to undergraduate and graduate students. Last year, the institute started holding some of its workshops on the West Coast in addition to the workshops held in Research Triangle Park, North Carolina.

SAMS has mentored more than 80 postdoctoral fellows and associates, many of whom now hold academic positions as well as positions in industry and government. SAMS has hosted hundreds of visitors each year to participate in multidisciplinary workshops that push the boundaries of data-driven and model-driven research.

In 2013–2014, SAMS will hold two major programs, one focusing on computational methods in the social sciences and the other focusing on low dimensional structure in high-dimensional systems. It also will host a summer program on neuroimaging data analysis. For more information about SAMS and its programs, visit www.samsi.info. ■

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ASA Records Viewable Online

Laura Sullivan, Assistant Archivist

A selection of records from the American Statistical Association Records—held by the Special Collections Department in the Iowa State University Library—is now available online at <http://cdm16001.contentdm.oclc.org/cdm/search/collection/p15031coll20>.

The records document the history of the ASA and include the constitution and bylaws, meeting minutes, correspondence, letters of acceptance of early members, resolutions, a report on the American Statistical Association Conference on Transfer of Methodology Between Academic and Government Statistics, and a report on the first 40 years (1967–2007) of the archival activities done by the ASA. Many of the digitized records document the formation and early history of the ASA. Included are the minutes from the first meeting on November 27, 1839, which was held “for the purpose of considering the expediency of forming a statistical society.”

As part of the digitization process, the early records were sent to the Conservation Laboratory to be stabilized and prepared for digitization. The old bindings were beginning to fail, dirt was adhered to pages, pressure-sensitive tape had been applied to pages in an effort to hold them together, and a number of pages were torn or folded. Iowa State’s conservator cleaned pages, unbound the fragile volumes, removed brittle tape and adhesive, and mended tears and creases. After

the documents were digitized, they were rebound or rehoused as necessary. In addition to now being available online for anyone with an Internet connection to read, the records documenting the early years of the ASA are now back in the Special Collections Department in better shape than they were when they departed.

The early records in the digitized collection include administrative records, correspondence, proceedings, board of directors materials, and founding documents. The administrative records (1838–1860) document the earliest activities of the American Statistical Association. Included are letters of acceptance from early ASA members such

as Edward Jarvis, Francis Lieber, J. M. Peck, and William Prescott; handwritten minutes of the first two organizational meetings; and the original constitution.

The Organization and Proceedings of the American Statistical Association (1839–1872) contains records documenting the creation of the association; the constitution and bylaws; meeting minutes and proceedings; names of Fellows; names of honorary, corresponding, and foreign members; and account information.

The Board of Directors records (1839–1872) include handwritten minutes for meetings, including attendance, officer and committee lists, presentations, proposals for membership, and resolutions. ■



Meet NCHS Director, Edward Sondik

Amstat News invited Edward J. Sondik of the National Center for Health Statistics (NCHS) to respond to the following questions so readers could learn more about him and the agency he leads. Look for other statistical agency head interviews in past and forthcoming issues.



Edward Sondik started out post-PhD life as an electrical engineer, teaching systems and operations research—related courses at Stanford, but became interested in health as an application, especially of modeling health as a Markov process.

What have you enjoyed most about being head of NCHS?

I've especially enjoyed balancing the center's dual role in the Department of Health and Human Services and our role as a federal statistical agency. These complementary roles contrast with the single statistical agency structure of other countries. We serve the core policy and research needs of government as well as the private sector. We're responsible for birth and death data and for measures of health status—both self-reported and measured directly—and a variety of health care data, both from doctors' offices and from hospitals.

I'd also include in my list reporting on trends in how we live (and are born and die); trends in health status and health risks; meeting the monitoring needs of the decades-long Healthy People program important to so many state efforts; and, perhaps most, I've enjoyed supporting the changes we've made in data collection and reporting technology and methodology.

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

Several challenges come to mind: Anticipating data collection needs and changing our programs to collect new information while supporting critical trends; adapting to new modes for collecting data such as the web; combining data from different modes since we know that mode makes a difference in answers; understanding the relationship between self-reported and clinical measures; moving into a world of electronic health records and perhaps even crowd sourcing; and online tools for data analysis. A continuing challenge is information on health disparities. While

our principal focus is national, we need to support measures at the state and local levels, too. Perhaps most challenging will be incorporating new data-collection technologies. Whether it's [using] the web to collect data or figuring out how to make sense of crowd technologies, I'm convinced that these technologies and electronic health records are in our future. The challenge? How to use them to give quality information.

Describe your top two or three priorities for NCHS.

Preparing the agency for those new modes of data collection while at the same time building a staff with the expertise we need to maintain our mission to serve as the gold standard for health data. It's also essential that our program meet the very diverse and changing needs of the Department of Health and Human Services. Our knowledge of the factors affecting health and the very measures of health itself are changing, and it is our responsibility to respond to these changes to give our country the data it needs for policy decision and research. It's critical, therefore, that we have open and frequent communication with the policy and research staffs throughout our large department.

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

I see this as a matter of mutual support in providing the multi-domain information that's needed to address issues of well-being—not only health, but also other aspects of well-being such as income, education, participation in civic affairs, housing, and freedom from crime and violence. I also feel that joint research on topics in survey research, cognitive studies, use of administrative records, and collaborative work with academe, the

National Science Foundation, and the National Academies would be helpful to all of us.

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

Our biggest accomplishment is how we've changed. Our staff has greatly reduced the time from data collection to publication in all cases from literally years to months. We've anticipated a wide variety of data needs crucial to policy and research to improve Americans' health. As a couple of examples, we collect data on exposures to environmental substances particularly important to environmental research and have begun a follow-back component on heart disease in our ambulatory care survey. Plus, we've expanded our data dissemination through new reports and the web. I might add that our budget has grown

Our knowledge of the factors affecting health and the very measures of health itself are changing ...

and we've not suffered a cutback, which I think reflects that we are recognized as a critical part of the department and health infrastructure. To date, we've maintained our independence in accord with the National Academy of Sciences' principles and practices. ■

**NOMINATIONS SOUGHT FOR THE
MARVIN ZELEN LEADERSHIP AWARD IN STATISTICAL SCIENCE**

The Department of Biostatistics at the Harvard School of Public Health named Nicholas P. Jewell, PhD as the recipient of the 2012 Marvin Zelen Leadership Award in Statistical Science. Dr. Jewell, Professor of Biostatistics and Statistics, School of Public Health and Department of Statistics, University of California, Berkeley, delivered a lecture entitled "Counting Civilian Casualties" on June 1 at Harvard University.

This annual award, supported by colleagues, friends and family, was established to honor Dr. Marvin Zelen's long and distinguished career as a statistician and his major role in shaping the field of biostatistics.

The award recognizes an individual in government, industry, or academia, who by virtue of his/her outstanding leadership has greatly impacted the theory and practice of statistical science. While individual accomplishments are considered, the most distinguishing criterion is the awardees contribution to the creation of an environment in which statistical science and its applications have flourished. The award recipient will deliver a public lecture on statistical science at the Harvard School of Public Health and will be presented with a citation and an honorarium.

Nominations for next year's award, to be given in May/June 2013, should be sent to the Marvin Zelen Leadership Award Committee, Department of Biostatistics, Harvard School of Public Health, 655 Huntington Avenue, Boston, MA 02115 or via email to vbeaulie@hsph.harvard.edu. Nominations should include a letter describing the contributions of the candidate, specifically highlighting the criteria for the award, and a curriculum vitae. Supporting letters and materials would be extremely helpful to the committee.

All nominations must be received by December 1, 2012.

Studies of Immune Response and False Discovery Rate Featured in September Issue

Hal Stern, *JASA* Applications and Case Studies and Coordinating Editor

New technologies producing large data sets are a major force in modern statistical science, motivating the development of new theory and methods and the application of these methods to important scientific problems. The increased attention to methodology for large data sets is illustrated in the two *JASA* invited papers that were presented during the 2012 Joint Statistical Meetings in San Diego, California. The articles and the ensuing discussions make for interesting reading in the September issue of the *Journal of the American Statistical Association*.

Applications and Case Studies

The immune system in humans and other vertebrates provides an adaptive and remarkably effective response to infections or vaccines. The response is determined largely by the spatio-temporal motion of lymphocyte cells. These cells move in response to unobservable gradient fields; learning about these fields is critical to understanding the basic biology behind infection and vaccine response. New technology measuring single-cell motion in real time provides an opportunity for investigators to infer the underlying gradient field by carefully modeling the motion of lymphocyte cells. New types of data require new statistical approaches.

One approach to the spatio-temporal lymphocyte motion data is described in “Bayesian Spatio-Dynamic Modeling in Cell Motility Studies: Learning Nonlinear Toxic Fields Guiding the Immune Response” by **Ioanna Manolopoulou, Melanie Mathieu, Michael Cahalan, Mike West, and Thomas Kepler**. Manolopoulou and colleagues develop a flexible statistical modeling framework by building on a continuous-time stochastic differential equation model for cell motion under a gradient field. Markov chain Monte Carlo computational techniques are used to learn about the parameters that govern individual cell motion and to infer the underlying gradient field. The approach they develop works extremely well on a simulated data set and provides insight for experimental data from the lymph nodes of mice. Invited discussions by **Edward Ionides, Samuel Kou, and John Fricks** (with colleagues **Le Bao** and **Murali Haran**) provide additional insight into the modeling and computational choices made by the authors.

A second application paper in the September issue presents another example of high-dimensional data motivating new methodology. In this case, network data that characterize the interactions of a large number of individual units (e.g., predator-prey relations among animal species) present the challenge. Network data exhibit a number of complex phenomenon that are not easily accommodated by standard models, including a latent hierarchical organization of the species, different types of interactions, and different network topologies (e.g., varying tendencies for within-subcommunity and between-subcommunity interactions).

Qirong Ho, Ankur Parikh, and Eric Xing propose “A Multiscale Community Blockmodel for Network Exploration” that allows investigators to infer these phenomena from a set of observed network interactions. Ho et al. develop a stochastic model for partitioning the units in the network, say species, in a hierarchically organized tree. Each species’ interactions are governed by a multiscale membership vector that describes the species likelihood of interacting with species at different levels of the hierarchical tree.

Finally, a probability model that links the hierarchical tree and the membership vectors to observed network connections can be used to infer the parameters of the model. The authors demonstrate the approach on a network describing the predator-prey relationships among a collection of 75 species of grass-feeding wasps and their parasites.

Theory and Methods

Multiple hypothesis testing is a fundamental problem in high-dimensional statistical problems. For example, in genome-wide association studies, tens (or even hundreds) of thousands of tests are performed simultaneously to determine which, if any, genetic markers are associated with a given disease or trait. Researchers in such settings increasingly rely on procedures that control the false discovery rate (FDR), the proportion of rejected null hypotheses for which the null hypothesis of no effect is actually true. Procedures have been developed that control the FDR in large problems with independent test statistics. When test statistics are correlated, false discovery control becomes challenging, especially if we wish to allow for arbitrary forms of dependence.

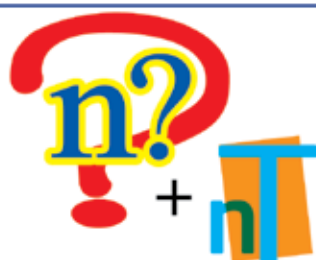
The featured Theory and Methods paper—“Estimating False Discovery Proportion Under Arbitrary Covariance Dependence” by **Jianqing Fan, Xu Han, and Weijie Gu**—proposes a novel method for controlling the false discovery rate based on a principal factor approximation of the covariance matrix of the test statistics. The approximation subtracts the primary sources of dependence and this significantly weakens the remaining correlation structure. This allows for the development of an approximate expression for the false discovery proportion. Discussants **Larry Wasserman, Peter Hall, Armin Schwartzman, and Jiashun Jin** provide additional insights and raise challenging questions about the proposed approach.

The potential for personalized medicine is explored in the article “Estimating Individualized Treatment Rules Using Outcome Weighted Learning” by **Yingqi Zhao, Donglin Zeng, A. John Rush, and Michael Kosorok**. Physicians note heterogeneous responses to treatment in many diseases; a drug that works well for some individuals may not work at all for others. Zhao et al. propose an optimal approach for using randomized trial results and individual prognostic factors (which may include genetic and other factors) to develop optimal rules for assigning individuals to treatments. Standard approaches to this challenging problem first use the data to estimate the expected

response for an individual for each treatment and then propose to assign patients to the treatment that yields the highest expected response. This can work poorly if the first-stage models are overfit to the data.

The authors show that estimating an optimal treatment rule is equivalent to a classification problem (a patient with a bad outcome on the assigned treatment is considered a misclassification). Some misclassifications are more significant errors than others are; the authors introduce differential weighting based on the patient outcome to address this issue. A machine learning approach, support vector machines, is used to find the optimal decision rule that minimizes the expected weighted misclassification rate without estimating expected responses separately for each treatment. The resulting estimator for the optimal treatment rule has good statistical properties and performs well in simulation studies and in an analysis of chronic depression data.

There are many other informative articles in both sections of the September issue, as well as a set of book reviews. The full list of articles and a list of the books under review can be viewed at <http://amstat.tandfonline.com>. ASA should log on through the Members Only link at www.amstat.org to access their free online access to *JASA*. ■



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A Tale of Two Researchers

Here is a tale of two researchers living in side-by-side universes. They are working on the same research project. However, one of them lives with a new form of academic publishing. Both academics are named Jane.

The New Universe

Jane 2.0 has discovered something important and she publishes her research on a social network dedicated to academic publishing. The network doesn't have to be like Facebook, MySpace, LinkedIn, or Twitter. Several websites have found the advantages of linking users without making the network the central focus of the site. For example, YouTube and Yelp both host user-generated content.

The network automatically alerts her colleagues to her new publication, and it automatically allows for a discussion thread beneath the link to her paper. Her research is controversial. It sparks a discussion among the researchers who follow her work. After discussing the problem for a couple days, the handful of commenters (who are not anonymous, but are well-known researchers to Jane) agree she needs additional evidence. They suggest an additional simulation experiment.

Since Jane's research has attracted quick attention, the network starts to suggest her paper to others who might be interested. At the same time, Jane runs the other experiment and links the results as an addendum to her paper. This link appears directly next to the original paper; everyone who has previously downloaded her paper is alerted to the addendum. (Two days later, she posts a revised version of her paper that incorporates this addendum.) This additional evidence addresses the controversy and several of the researchers who joined the discussion "republish" Jane's research on their own pages. The people who follow these other researchers will be notified of Jane's research.

Jane's paper is thought to open up several interesting lines of inquiry. In the two weeks after Jane 2.0 first published her research, she has gone through a round of revisions and her paper has gone viral in her community. One year later, there are 43 other papers that follow up on her research. They have been published on the network and are all linked in a common thread of papers. In that time, the editors of two journals have sent a message to Jane 2.0 asking if they may conduct a formal peer review. Jane selects which journal she prefers, the article is reviewed and accepted, and then linked on the journal's page inside the network. The people who follow these journals are alerted to her research. This propels her research

further into the network. Two years later, there are 211 follow-up papers. Compare this story to Jane 1.0.

The Current Universe

Jane 1.0 lives in the present. When Jane 1.0 wants to publish her research, she emails the research to her colleagues. They respond individually, unaware of the others' comments. They all think additional work is needed for publication. However, because the commenters are not aware of the others' comments, no individual colleague can identify the controversy that Jane 2.0 was able to address quickly.

Jane 1.0 also posts her research in several places: (1) on her web page, (2) as a technical report on her department's page, and (3) on arXiv. Additionally, she submits her research to a prestigious journal. Three months later, she receives a rejection from the journal. Fortunately, the referee reports lead her to discover the reason people are so frustrated. She runs the additional experiment (that Jane 2.0 ran within a few days of first posting her research) and resubmits to the prestigious journal with a long letter explaining why she is resubmitting after being rejected. This letter sits on the editor's desk for at least a week before the editor decides to send it out again. After sitting on the referees' desk for another three weeks, they uniformly agree that this is groundbreaking research. After worrying about typesetting and other typographical issues, the paper is printed in the journal six months later. Since not all researchers read through the abstracts of every single journal, several researchers do not see the paper until four months later, when one of their graduate students mentions it. (In Jane 2.0's universe, content recommendation software alerts researchers to interesting/relevant papers.)

Follow-up research begins roughly one year after Jane 1.0 initially published her research. This research is not published for an additional year. So, two years after Jane originally published her research, there are only 22 follow-up papers.

What We Should Expect from a Web-Enabled Publishing Environment

The pace of research in the current universe stalls for several reasons. Some of these are emphasized in the above stories. Others are not.

- (1) There is no public forum to discuss a paper. Sometimes, there are discussions at conferences; however, it is difficult to invite other people into these discussions. It is difficult to make these discussions public for others to observe.

(2) For-profit journals used to serve a purpose of printing ink on paper. This used to speed up research. They no longer add this value. Now, they slow down research by putting up pay walls. Editors, referees, and researchers create the value and donate their time to the community. They are often paid with taxpayers' dollars. Their efforts should not be hidden behind a pay wall.

(3) The current system recommends content by sorting research into journals. However, our research interests are much more varied than the number of journals allow. A new, unified system would enable "content recommendation," like Netflix or Amazon, to identify research of interest.

(4) The current system is bulky. Papers are often published in at least four locations. There is no systematic way for someone to stay up to date on the current research. The new system would provide the opportunity for a high-quality user interface for researchers to read about developments when they first happen.

(5) The current paradigm accepts research that is roughly 10–50 pages. In most journals, the effective page restrictions are much tighter. However, suppose a graduate student reads a paper and runs a follow-up simulation that gives some small insight into a certain method. Unless this graduate student can expand this idea into a full paper, no one sees the simulation. The new paradigm would allow for users to post follow-up simulations with some code for others to try. In addition to expediting follow-up research, it could also lead to rapid identification of coding errors. Additionally, this site could host academic blogs, which have proved to be a popular medium for several researchers. On the upper page limit, any grand research that exceeds 50 pages often must be split into several papers or published in a monograph. Web-enabled publishing would not have such restrictions.

(6) This system also could allow conferences to have a central web page. Conference speakers could provide links to papers/slides/etc.

The Path Forward

The ASA has convened a panel to discuss the future of academic publishing. There are several researchers with deep concerns as to how a new system might disrupt the current system. However, we do not get to choose if we follow a new path; a step forward is inevitable. We might get to decide what the new path

looks like. Some paths are suboptimal. Some paths will be designed for other disciplines. We need to design a system that works for our community.

At the same time, a social network without any people is worthless; the value dramatically increases as more people buy in. Making a separate, second most-popular social network is not worthwhile (see MySpace). If we make the second or third site, we might be forced to follow the path others blaze. For these reasons, we need to build a network that others will want to join, and we need to move fast.

Having a network supported by a large organization such as the ASA or IMS would give credence to a site. This is important. However, for a site to spark, it needs much more. It needs to be easy. It needs to be effective. It needs to add value to people's lives.

The first step forward should be fast and easy. One option is to build a site on top of arXiv. At first, the site does not need user profiles. It merely links to articles (hosted elsewhere). This puts all the research in one spot. As a second step, there should be a comment thread associated with each linked article. Additionally, there should be a "republish" button that "pushes" the good research to the top of the front page. These are extremely valuable steps forward.

Later, a more formal system can give more authenticity by giving users profiles and letting them connect with fellow researchers. Whether this system should be built in concert with arXiv is not clear. A huge upside is that it would lead to immediate buy-in from a wide range of researchers. One potential downside is that if arXiv owns the system, then the statistics community loses control.

Our current system of publishing was designed for a world with different constraints. We have begun to realize a new system, through academic blogs and homepages, arXiv, and online journals. However, these sources lack unity and are therefore more cumbersome than the limitations of current technology. A central electronic clearinghouse with links, alerts, and discussion boards would reduce some of the burden of finding research and provide a unified place to discuss research. Ultimately, this would lead to an efficient, expedited, and accessible interface for publishing and discussing research that would actively propel lines of inquiry forward. Academia is characterized by creative thought, innovation, and timely applications that benefit society, and the irony of being hamstrung by arcane modalities is striking. It is time to move forward. ■

Karl Rohe, Assistant Professor

University of Wisconsin-Madison Statistics
Department

MASTER'S NOTEBOOK

NSF Graduate Research Fellowship

Meredith Berthelson and Jennifer Slimowitz Pearl

Tips for Students

To enter the competition, you need to submit a complete application via NSF FastLane at www.fastlane.nsf.gov/grfp. The application consists of a personal statement, description of previous research experience, proposed plan of research, and transcripts. Part of the application also includes three letters of reference, submitted separately via FastLane by the reference writers.

Reviewers evaluate the applications based on intellectual merit and broader impacts. For intellectual merit, you will need to demonstrate your academic capability and other conventional requisites for scholarly, scientific study. Details such as the ability to plan and conduct research, work in a team as well as independently, and interpret and communicate research are useful.

To demonstrate broader impacts, convey how your research will contribute on a larger scale to society and the breadth of its audience. Will it encourage diversity, broaden opportunities, and allow participation of all citizens in science and research? If so, this should be evident to the reviewer.

When preparing your application, you should be clear and specific, so the reviewer doesn't struggle as he or she is reading the application. Describe your experiences—whether they are personal, professional, or educational—that have been factors in your preparation and that have driven you to pursue graduate study. Be detailed about your involvement in any scientific research activities and what you learned from those experiences. If you have not been involved with any direct research, then describe any activities you think have prepared you to start research. Also don't let the reader try to glean from your writing that you "could" be a leader in some capacity. Instead, describe your leadership potential directly. How do you see yourself contributing to research, education, and innovation? Provide the reviewers with your career aspirations and specific goals you hope to accomplish. You need to sell yourself in your application.

statistics graduate students is the National Science Foundation's (NSF) Graduate Research Fellowship Program (GRFP).

Director of the NSF Division of Mathematical Sciences Sastry Pantula stated, "[The] NSF Graduate Research Fellowship (or an honorable mention in the competition) is certainly a feather in any future scientist's cap! There are many well-qualified mathematics and statistics students in this country, and I would love to see many, many more of them take advantage of this excellent opportunity."

In 2012, the GRFP awarded 2,000 fellowships; only 75 of those were to students in mathematics and statistics (3.75%).

What are the key elements of the fellowship? It is a five-year award worth \$126,000. The NSF graduate fellow receives three years of support (useable over a five-year period). For each of these three years, the fellow receives a \$30,000 stipend and the graduate institution receives a \$12,000 educational allowance to cover tuition and all required fees. The fellow also has access to international research opportunities and supercomputing resources.

Eligible applicants must be either a U.S. citizen or national or permanent resident and an early-career graduate student pursuing a research-based master's or doctoral degree in an NSF-supported field. In mathematical and statistical sciences, the following categories are included:

Algebra, number theory, and combinatorics

Analysis

Applied mathematics

Biostatistics

Computational and data-enabled science

Computational mathematics

Computational statistics

Geometric analysis

Logic or foundations of mathematics

Mathematical biology

Probability

Statistics

Topology

Other (related fields)

Editor's Note: This article originally appeared in the September 2012 issue of *IMS Bulletin*.

Many students getting ready to graduate with their baccalaureate degrees contemplate graduate studies or plan to continue their education. One of the major obstacles can be funding: Students who have just finished their undergraduate education may not want to add more tuition bills to the pile. If only there were a way to help them continue their education and execute some of the research they wish to do. Ah, but there is! One of the most valuable funding mechanisms for mathematics and

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Applicants must be planning to enroll in an accredited institution in the United States by the fall following announcement of the award. Anyone who has already received a graduate degree is not eligible.

Adam Kapelner and Gina-Maria Pomann, two current NSF graduate fellows, hammer home the importance of some of these requirements. Adam earned his bachelor's degree in mathematics and computer science at Stanford University and is working on his PhD in statistics at The Wharton School of the University of Pennsylvania. His research involves machine learning and model selection. He attributes the GRFP for giving him the time to be able to immerse himself in his research and, as a result, submitting his work to and publishing in various journals. He is helping lead the charge in assisting interested students in his department with their applications to the GRF. When asked what advice Adam could give students interested in applying to the GRF, he stated his best recommendation would be for candidates to describe their research experience. "Can you make an impact in science? You need to illustrate your potential in research," he said. He also acknowledged that he heard about the fellowship through a friend who thought it might be beneficial when applying to graduate school.

Gina-Maria Pomann is pursuing her PhD in statistics at North Carolina State University. Her research interests are functional data analysis with applications to magnetic resonance imaging and dynamic treatment regimens. She thinks the GRF, in combination with her AT&T Labs fellowship, has allowed her to work on an array of projects as well as with different mentors.

Gina-Maria started out earning an AS degree from Middlesex County College and then transferred to The College of New Jersey, where she earned her bachelor's in mathematics with a minor in statistics. Gina-Maria first learned about graduate school and the GRF at the Mathematical Science Research Institute Undergraduate Program (MSRI-UP). MSRI-UP also took Gina-Maria and her fellow participants to a Society for Advancement of Chicanos and Native Americans in Science (SACNAS) conference, where the students were further informed about the GRF and other opportunities. Her advice to students seeking a GRF is, "Get as much undergraduate research experience as possible!" She said her early research experiences helped her focus her research interests and write her GRF application.

For the NSF solicitation, more information, and tips from awardees and reviewers, visit www.nsfgrfp.org, call (866) 673-4737, or email info@nsfgradfellows.org. For access to online applications, user guides, and other official announcements, log on to the FastLane website at www.fastlane.nsf.gov/grfp. ■

STATtr@k

Service-Oriented Statistics: What Can Students Do?

Glen DePalma, Doug Baumann, Jeff Nisen, and Libo Wang

Service-oriented statistical consulting is a natural way for statisticians to help meet societal needs. StatCom is a pro-bono statistical consulting group that originated in 2001 in the department of statistics at Purdue University. The Purdue branch of StatCom (www.stat.purdue.edu/external_relations/statcom) is run and staffed by graduate students in the department and includes statistics undergraduate students and graduate students from other departments (e.g., sociology and computer science).

Many universities have StatCom (or a similar organization) to help nonprofit organizations in their communities. These programs increase awareness among the general public of statistics and the potential that statisticians have to make positive contributions. Furthermore, nonprofits, local governments, schools, and other community organizations realize the benefits of quantitative thinking and assessment. And, finally students gain practical experience, acquire skills useful in any future career, interact with professionals in the field, and develop a sense of volunteerism even before they become practicing statisticians.

benefits public school superintendents receive in Indiana.

A fast way to find projects such as these is to contact the organizations directly or find someone who knows the community well and ask them to help spread the word. Contact your local schools and governments.

The Future

There are constant challenges involved in any volunteer organization. For one, students must be kept motivated. Every student is already heavily burdened with class work and maintaining some type of social life. Students may show interest at the beginning, but lose interest as the semester wears on. It is important to find key individuals who know the graduate student population well and can help keep students motivated. The success of volunteer efforts is the result of only a few individuals.

Societal awareness of quantitative thinking and the need for assessment and analysis is growing every day. As more data are made widely available, the need for people to extract meaningful information is heavily sought after. Most nonprofit organizations have to show community value to receive funding, and statistical graduate students can help fill this need.

A Call to Action

We encourage statistics graduate students everywhere to get involved in their communities. You will find the experience to be rewarding in many ways. We can help you. Please contact us at statcom@stat.purdue.edu. ■



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What Can Students Do?

Many organizations need statistical help, from designing surveys to developing predictive models. There are numerous opportunities for delivering service-oriented statistics within local communities. Here, we highlight several recent projects.

StatCom designed a survey for patrons of the local city symphony orchestra to inform board members of the potential areas of improvement. Initiatives are ongoing to improve the facilities and atmosphere at orchestra events as a result of our analysis.

StatCom has worked with members of the Tippecanoe County Assessor's Office to develop a predictive model for sale prices of housing units throughout Tippecanoe County, Indiana.

StatCom has worked with the Indiana Association of Public Superintendents to assess the

The Future of Statistical Publications

An anniversary that ends in '0' is an occasion for celebrating the past. When one ends in '5,' it is an opportunity to plan the future. In that spirit, and responding to an invitation from the 175th Anniversary Committee of the American Statistical Association, I urge that we re-evaluate our publication processes. Electronic media are transforming access to information; it is time for the ASA to decide how to manage this change.

I fear our current approach to publishing does not serve us well. It takes too long, so our best scientists are driven to other journals in faster disciplines. Refereeing is noisy and often achieves only minor gains. And the median quality of reviews is deteriorating due to journal proliferation, pressure on junior faculty to amass lengthy publication lists, and the slow burnout of conscientious reviewers.

Our present paradigm has other structural problems. Published articles are static—correction and improvement are impossible. Published research often does not replicate, which is hard to flag. Readers must reach too far to find the code behind the article, and the data are nearly impossible to obtain. Correct work that is not sufficiently novel is excluded and lost. And there is a large gray literature that cannot be easily accessed or assessed (e.g., federal reports, weighting schemes for official surveys, lecture notes, classroom exams, code documentation, data/metadata, PhD theses).

I am far from the first person to raise these concerns. Karl Rohe has a parable that illustrates many of these issues on Page 16. Larry Wasserman, Jim Pitman, Nick Jewell, Nick Fisher, and Roger Peng, among others, have grappled with various features of the problem. Since 2005, the ASA has formed three committees to study the matter; most recently, Len Stefanski is chairing one, which will make recommendations to the ASA Board in November. Among young statisticians, almost all perceive the inefficiencies of traditional publication and share a common sense of the improvements that are possible.

Change will happen. If we fail to plan ahead, the ASA will be forced to adopt whatever system Wiley or Springer or the American Mathematical Society establishes as the standard, but their interests and needs align imperfectly with ours.

Today's publication process was essentially invented by Henry Oldenburg, the first corresponding secretary of the Royal Society. He received letters from members describing their research, copied them out



in summary form, and mailed those summaries to other members. But his hand grew weary, and he began to send notes of the following kind:

My deare Mifter Boyle: Thanke you for your recent intelligence regarding the suffocation of a canary in your belle jarre. Last monthe you reported the suffocation of a mouse, and previously, the expiation of a frogge. I regrette that the scientific novelty of your latest communication is insufficient for publication.

Given his technology, Oldenburg's stringencies were essential. Printing and distribution costs were the limiting factors; *pauca sed matura* had to be the standard. An entire economic ecology grew up around those constraints: Publishers set type and sold volumes; societies created editorships and referees; and libraries emerged. Authors and editors created content for free and publishers made fortunes; this was the best solution possible. Until the Internet.

Now, we have fresh choices. Electronic articles can be living documents, as on arXiv; better versions layer on top of the old. Articles may use color and dynamic graphics and be as long as necessary, with detailed proofs and worked-out examples (while reader feedback enforces concision). Article quality can be signaled in multiple ways, either by conventional review or by ungameable rating systems, similar to page-ranking algorithms. Readers can use personalized recommender systems to discover papers. And data, code, and gray literature become easy to access. Space limitations prevent a full catalog of the possible features (and bugs), but I expect Stefanski's report will be more comprehensive.

I invite readers to comment on this topic. Just go to <http://magazine.amstat.org> and post your thoughts. ■

Recollections & Thoughts About JSM in San Diego

Steve MacEachern, JSM 2012 Program Chair



A particular pleasure within the statistics community—whether corporate, government, or academic—is the chance to travel to professional meetings. I find I am always energized by a meeting and also worn out by its end. The energy comes from the excitement of seeing novel ideas that give us a new perspective on old issues, from being introduced to new problems that have been opened up by technological innovation, from seeing sharp, clear examples of terrific statistical practice, and from seeing the importance of problems the community is addressing. Additional energy that may account for being worn out by the end of JSM week comes from the vibrant social scene—seeing old friends and meeting new ones. What follows are a few of my recollections and thoughts about JSM in San Diego. I'm sure each of us has many fine memories of the event.

First off, San Diego: What a wonderful location for JSM. As advertised, the weather was perfect, there was an abundance of hotels and eateries nearby, and the food was excellent—even at the street fair I wandered into. The convention center was laid out well, with good room size and acoustics. The “tunnel” view coming down the escalator was worth a photo or two. I enjoyed the sessions being split between the convention center and headquarter hotel, as it generated a few short walks outside. I think it's a fine tradition to circulate JSM among a large number of cities, but I certainly hope for a return to San Diego.

The Introductory Overview Lectures (IOLs) were a big hit once again, as they provide us all with a chance to learn about a new area from experts who lay out the main ideas and a few pithy examples—all in an hour and 50 minutes. This year, the IOLs covered causal inference, personalized medicine, sparsity, and climate. Thanks to Judea Pearl, Don Berry, Dave Donoho, and Peter Guttorp for their efforts in putting together a fine set of presentations.

Big import sessions included the late-breaker on statisticians' roles in health care reform, organized by John Adams, and the session on statistics and human rights, organized by Jay Kadane.

Developments in professional organizations are always of interest. JSM has grown dramatically since the first I attended, nearly 30 years ago. The meeting is larger, the crowds are far more diverse, and good penmanship has been replaced by artistic page layout. New sections are forming, and their growth is expanding the ASA in varied directions. Two of note are the

Section for Statistical Programmers and Analysts (more than 1,800 members in just two years of existence) and the Section on Statistical Learning and Data Mining. The former has attracted many from outside academia; the latter includes many with backgrounds in computer science and related fields. Sessions sponsored by these sections provided a good opportunity to broaden one's knowledge, and both fit well with ASA President Bob Rodriguez's Big Tent initiative.

The technical sessions are always a highlight of JSM, and we each have our favorites. For me, Thursday morning is a treat. The relaxed atmosphere as JSM winds down imparts the feel of a smaller meeting, and the program is every bit as strong as the earlier days. This year, I saw excellent sessions on Bayesian methods in the health sciences and design of computer experiments.

The posters were enjoyable, with a good location in the exhibit hall and ample room for a nice display. The new electronic posters were a success, opening up many dynamic possibilities. Anecdotally, there seem to be more students attending the meetings. A poster presentation is a terrific way to get a start on one's career.

Attendance at the meetings was strong, with more than 6,300 attendees. Interestingly, I bumped into our divisional dean, a probabilist by trade, and learned that attendance at the big annual meeting in mathematics runs in the mid-5,000s. The comparison shines a spotlight on the vigor and currency of our discipline. I'm already looking forward to next year's JSM in Montréal, where I'm told the meeting will open with “Bienvenue au Canada.”

I had a terrific time as program chair; my thanks go to Bob Rodriguez and the Committee on Meetings for selecting me for the position. The real work of organizing the meeting falls on two groups—the ASA staff and the JSM Program Committee. During the year, I gained a new appreciation for the difficulty of putting on JSM and the dedication of the ASA staff. My thanks to them for the long hours and late nights they put into making the meeting run so smoothly. The Program Committee was singularly well prepared. They put together a fine technical program and made scheduling easy. My special thanks go to the general methodology chairs, Mark Glickman and Yoonkyung Lee, and the poster chair, Kristin Duncan, all of whom proved a remarkable sounding board. ■



Many Honored at Presidential Address, Awards Ceremony



Batcher



Stokes



Chuang-Stein

Highlighting the ASA Presidential Address and Awards Ceremony during the Joint Statistical Meetings in San Diego, California, were the announcement of the Founders Award winners and the official induction of 48 ASA Fellows. Congratulations to all.

The Founders Award was given to Mary Batcher, Christy Chuang-Stein, and Lynne Stokes for extended, outstanding service to the statistics profession through a variety of leadership roles.

Mary Batcher, Ernst & Young, for outstanding service to ASA chapters through her service as president of the Washington Statistical Society and as chair of the Council of Chapters; for many years of diligent, steady leadership of and service to the ASA's accreditation program; and for dedicated service on many ASA committees.

Christy Chuang-Stein, Pfizer, Inc., for outstanding service in multiple roles, including vice president, group leader of the Accreditation Committee, and chair of the 175th Anniversary Steering Committee; for dedicated service on the Committee on

Fellows, as program chair of the Biopharmaceutical Section, as a member of the JSM Program Committee, and as president of the Southwestern Michigan ASA Chapter.

Lynne Stokes, Southern Methodist University, for outstanding service to ASA over the past 20 years through her leadership in chapters and sections as chair of the Council of Chapters and Council of Sections; editor of *The American Statistician*; and dedicated contributions on several committees, including the JSM Program Committee, the Census Advisory Committee, and the Committee on Privacy and Confidentiality.

Each year, ASA Fellows are nominated by the membership and selected by the ASA Committee on Fellows, chaired this year by Ji Zhang. The number of Fellows named is limited to no more than one-third of 1% of the active ASA member total. The following 48 ASA Fellows were inducted this year:

Mousumi Banerjee
University of Michigan

Sudipto Banerjee
University of Minnesota

Melissa Begg
Columbia University

F. DuBois Bowman
Emory University

Amy J. Braverman
Jet Propulsion Laboratory

N. Rao Chaganty
Old Dominion University

Dongseok Choi
Oregon Health and Science University

Mark R. Conaway
University of Virginia Health Systems Department of Public Health Sciences

Susmita Datta
University of Louisville

Marc N. Elliott
RAND Corporation

Scott Evans
Harvard School of Public Health

Debashis Ghosh
The Pennsylvania State University

Mithat Gönen
Memorial Sloan-Kettering Cancer Center

Visit <http://magazine.amstat.org> to view more pictures from JSM 2012.



Forty-eight ASA members received the honor of Fellow in 2012.

Robert L. Gould
UCLA

Deborah H. Griffin
U.S. Census Bureau

Jeffrey H. Hooper
BT Group US&C

Nicholas J. Horton
Smith College

Xiaoqiong Joan Hu
Simon Fraser University

Michael G. Hudgens
*The University of North
Carolina at Chapel Hill*

Gareth James
*University of Southern
California*

Jae-Kwang Kim
Iowa State University

Michael D. Larsen
*The George Washington
University*

Lawrence I-Kuei Lin
Baxter Healthcare Corporation

Bo Henry Lindqvist
*Norwegian University of
Science and Technology*

Jen-Pei Liu
National Taiwan University

Thomas Lumley
University of Auckland

Clyde F. Martin
Texas Tech University

Nancy Mathiowetz
*University of Wisconsin—
Milwaukee*

Bhramar Mukherjee
University of Michigan

Anna B. Nevius
*U.S. Food and Drug
Administration*

Thomas E. Nichols
University of Warwick

A. James O'Malley
Harvard Medical School

R. Todd Ogden
Columbia University

Liang Peng
Georgia Institute of Technology

José C. Pinheiro
Janssen R&D

Christian P. Robert
Universite Paris Dauphine

Abdul J. Sankoh
Vertex Pharmaceuticals

Sanjay Shete
MD Anderson Cancer Center

Judith D. Singer
Harvard University

Marc A. Suchard
*University of California, Los
Angeles*

Thaddeus Tarpey
Wright State University

Ram C. Tripathi
*The University of Texas at San
Antonio*

Andrea Troxel
University of Pennsylvania

Roshan Joseph Vengazhiyil
Georgia Institute of Technology

Colin O. Wu
*National Heart, Lung, and
Blood Institute*

Daowen Zhang
*North Carolina State
University*

Kelly Hong Zou
Pfizer Inc.

Rebecca Zwick
Educational Testing Service

Many more people were honored for their contributions to various causes that advance the field of statistics. Following is a list of awards and recipients:

Samuel S. Wilks Memorial Award

The Samuel S. Wilks Memorial Award was established in 1964 to honor the memory and distinguished career of Sam Wilks by recognizing outstanding contributions to statistics that carry on the spirit of his work. The 2012 Wilks award winner is **Peter Hall** of the University of Melbourne for his pioneering and influential contributions to a wide variety of areas of statistics and probability and for his outstanding service to the profession, with an extensive record of editorial roles, collaborative work, and promotion of statistical science to the wider scientific and educational communities.

Gottfried E. Noether Awards

The Noether awards were established in 1999 by the wife and daughter of the late Gottfried Emanuel Noether of the University of Connecticut as a tribute to his memory. They recognize distinguished researchers and teachers and support research in nonparametric statistics. The Gottfried E. Noether Young Researcher Award winner for 2012 is **Guang Cheng**, Purdue University, for outstanding early career contributions to nonparametric statistics. The Gottfried E. Noether Senior Scholar Award winner for 2012 is **Joseph L. Gastwirth**, The George Washington University, for out-



2012 Edward C. Bryant Scholarship Award winner Mark Dahlke

standing contributions to the theory, applications, and teaching of nonparametric statistics.

Statistics in Chemistry Award

The Statistics in Chemistry Award recognizes outstanding collaborative endeavors between statisticians and chemists. While this is a section award, the board of directors grandfathered it in 1995 for presentation at the ASA Presidential Address and Awards Ceremony. The 2012 Statistics in Chemistry Award winners are **Bradley Jones**, JMP Division, SAS Institute, and **Scott Allen**, Novomer, Inc., for outstanding collaborative work in developing a new catalyst for CO₂-based polymers that sequester CO₂.

Outstanding Statistical Application Award

Each year, the ASA recognizes a paper that is an outstanding application of statistics in the physical, biological, or medical sciences. This year's winners are **Chae Young Lim** and **Sarat C. Dass** of Michigan State University for developing novel point process models

with spatially dependent mark distributions and using them to assess fingerprint individuality. This research was published in their paper, titled "Assessing Fingerprint Individuality Using EPIC: A Case Study in the Analysis of Spatially Dependent Marked Processes," published in the May 2011 issue of *Technometrics*.

Edward C. Bryant Scholarship Award

The Bryant scholarship trust is a permanent scholarship fund endowed by Westat to honor its cofounder and longtime leader, Edward C. Bryant. The award honors an outstanding graduate student who is studying survey statistics. The 2012 scholarship recipient is **Mark Dahlke** of Colorado State University for outstanding academic achievement in a statistical program.

W. J. Dixon Award for Excellence in Statistical Consulting

Established through a gift from the family of Wilfrid Dixon, this award recognizes outstanding contributions to the practice



2012 SPAIG Award winners

of statistical consulting. The 2012 award was presented to **Gary Grove Koch** of The University of North Carolina at Chapel Hill for outstanding contributions to the development and review of pharmaceutical licensing applications, to the research on and software development of categorical data analysis, and for advancing the science and art of statistical consulting.

W. J. Youden Award in Interlaboratory Testing

The W. J. Youden award was established in 1985 to recognize the authors of publications that make outstanding contributions to the design and/or analysis of interlaboratory tests or describe ingenious approaches to the planning and evaluation of data from such tests. The 2012 W. J. Youden Award winners are **David Dunson** of Duke University and **Garritt L. Page** of Pontificia Universidad Catolica de Chile in recognition of their paper, "Bayesian Local Contamination Models for Multivariate Outliers." The

authors developed a simple but flexible hierarchical model to address multi-analyte, multi-laboratory studies with outlying observations and tested the model using both simulated and real interlaboratory study data.

Waller Education Award

Retired ASA Executive Director Ray Waller and his wife, Carolyn, established the Waller Education Award in 2002 to recognize a statistics teacher early in his/her career for excellence and innovation in teaching introductory statistics at the undergraduate level. The 2012 Waller Award winner is **Michael A. Posner** of Villanova University in recognition of outstanding contributions to and innovation in the teaching of elementary statistics.

The SPAIG Award

The ASA established the SPAIG Award in 2002 to recognize outstanding partnerships between academe and business, industry, and government organizations and to promote new partnerships. It is the only ASA award

that recognizes organizations. This year's SPAIG award was given to **Baylor University** and **Eli Lilly & Company** in recognition of the vision and support provided by Eli Lilly to Baylor University in the creation of a partnership for the enhancement of pharmaceutical research and development.

Gertrude M. Cox Scholarships

Jessica Orth of the University of Minnesota, Morris, and **Christine Ho** of the University of California at Berkeley are the winners of the Gertrude M. Cox Scholarship in Statistics Award. Since 1989, the scholarship has been awarded by the ASA Committee on Women in Statistics and the Caucus for Women in Statistics to encourage women to enter statistically oriented professions. The following women were awarded honorable mentions: **Lucy D'Agostino**, **Naomi Brownstein**, **Julia Shin-Jung Lee**, and **Diana Marie Liley**.

Karl E. Peace Award

The Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society recognizes statisticians who have made substantial contributions to the statistical profession and society in general. The award—established by Christopher K. Peace, son of Karl Peace, on behalf of the Peace family to honor the life work of his father—was offered for the first time this year. The 2012 Peace award winners are **Fritz Scheuren** for an exemplary career that has translated impressive statistical contributions into support of humankind and **Marvin Zelen** for outstanding statistical contributions and dedication to the establishment of collaborative partnerships between biostatistical and clinical sciences. ■

COMMITTEE OF PRESIDENTS OF STATISTICAL SOCIETIES

COPSS Honors Statisticians



Kou



Gray



Little

Visit *Amstat News* online at <http://magazine.amstat.org> to read an interview with COPSS Presidents' Award winner Sam Kou.

Members of the Committee of Presidents of Statistical Societies (COPSS) are pleased to announce the 2012 awards, which were presented to the winners at JSM in San Diego, California, by COPSS President Xihong Lin.

The winner of the Presidents' Award is **Samuel S. Kou** of Harvard University for groundbreaking contributions to stochastic modeling and statistical inference in single molecule biophysics; for pioneering the equi-energy sampler; for fundamental contributions to Bayesian, empirical Bayes, and nonparametric methods; and for outstanding service to the statistical profession and contribution to statistical education.

The Elizabeth L. Scott Award was presented to **Mary Gray** of American University for her lifelong efforts to foster opportunities in statistics for women and to further the careers of academic women; for creating a forum for discussing the role of women in mathematics; for exposing discrimination; and for exchanging strategies, encouraging political action, and promoting affirmative action.

The 2012 Fisher Lecturer was **Roderick J. Little** of the University of Michigan for

outstanding statistical research in the modeling and evaluation of missing data, sample survey, and causal inference; for the clear and comprehensive application of these and other methodologies in science and public policy arenas; and for diverse and effective

professional and academic leadership contributions. His lecture was titled "In Praise of Simplicity, not Mathematistry! Ten Simple, Powerful Ideas for the Statistical Scientist."

Award criteria and nominating procedures are available on Page 31 and at www.niss.org/copss. ■

Win \$5,000 in the AdviseStat User Video Contest

From now until November 30th, you can submit a short video showing how you use AdviseStat in your statistical work. Enter your video for a chance to win \$10,000 in prizes, including a \$5,000 grand prize voted on by the public!

Visit adviseanalytics.com/contest for details!

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Planning Begins, Proposals Sought for USCOTS '13

Planning has begun for the next United States Conference on Teaching Statistics (USCOTS), which will be held in Raleigh, North Carolina, from May 16–18, 2013, and hosted by the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE). Members of the USCOTS '13 program committee are seeking ideas for active, participant-focused breakout sessions addressing the conference theme, “Making Change Happen.”

Change can be difficult, but also exhilarating, scary, but also liberating. Previous USCOTS sessions have advocated various types of changes in teaching statistics likely to produce enhanced student learning. Conference participants often become excited about visionary ideas presented, but struggle to follow through and affect sustained changes at their home institutions. USCOTS '13 will address the goal of making change happen.

This conference is designed to model good teaching in its sessions, social activities, and hallways. As with previous USCOTS, it will consist of plenary sessions, breakout sessions, and “poster and beyond” sessions. These will address how to make change happen in four main areas: curriculum, pedagogy, resources, and educational research.

Thus, members of the USCOTS program committee are requesting proposals for 80-minute breakout sessions that relate directly to the conference theme and focus on actively engaging participants. It is not appropriate for a breakout session to consist primarily of a presentation.

To propose a breakout session, send a description to Allan Rossman, program chair, at arossman@calpoly.edu by November 10. Your proposal of no more than 1,000 words must include the following:

- Title for proposed session
- Names, email addresses, and brief biographical sketches for all leaders of the session
- Description of how the session relates to the conference theme
- Explanation of how the session will actively engage participants
- Discussion of how participants will be able to implement ideas presented in the session

Proposals will be reviewed by members of the USCOTS '13 program committee and notifications will be made by January 15, 2013. Proposals for “poster and beyond” sessions will be solicited at a later date; those proposals will be due on February 1, 2013.

Conference sessions will consider many types and aspects of change, including the following:

- Changing an individual class, course, or program in terms of content, technology, or assessments
- Changing pedagogical methods used to promote student learning
- Changing resources or delivery systems used to teach statistics
- Collaborating to make change happen
- Overcoming resistance to change
- Evaluating the impact of change

More information can be found at www.CAUSEweb.org/uscots. ■

The deadline for listing an internship opportunity in the December 2012 issue of *Amstat News* is October 20. Any listings received after October 20 will be posted on the ASA website only. Visit www.amstat.org/education/internshipopportunities.cfm for details.

International Census at School Workshop Held in Conjunction with JSM 2012

Rebecca Nichols, ASA Director of Education

The American Statistical Association sponsored the 2012 International Census at School Workshop at the end of the Joint Statistical Meetings in San Diego, California, on August 2 and 3.

Census at School is a free, international classroom project that engages students in grades 4–12 in statistical problemsolving using their own real data. Under the direction of their teachers, students involved in the program anonymously complete an online survey, analyze their class census data, and then compare those results with results from random samples of participating students throughout the world. The Census at School project began in the United Kingdom in 2000 and now includes Australia, Canada, New Zealand, South Africa, Ireland, Japan, Korea, and the United States. Statistics education leaders from other countries also are investigating bringing the project to their country.

The two-day meeting provided an opportunity for international Census at School leaders and U.S. Census at School champions to coordinate the international Census at School project, share hands-on curriculum materials, achieve common understanding of the international project, acquire experience with country-specific data-handling activities and resources for teachers and students, and increase awareness of international efforts to improve statistical literacy in school children.

Roxy Peck of Cal Poly and Rob Gould of the University of California at Los Angeles chaired the workshop program committee, which included international Census at School leaders and U.S. Census at School leaders and champions. Workshop presenters and participants included international leaders and representatives from the United Kingdom, South Africa, Canada, New Zealand, Japan, and Paraguay. Although they could not attend in person, leaders from Australia sent a written report to update the international leaders regarding the project in Australia.

Statisticians involved or interested in getting involved with U.S. Census at School and representatives from the U.S. Census Bureau and their Statistics in Schools program also participated in the meeting. ASA President Bob Rodriguez and ASA Executive Director Ron Wasserstein welcomed participants.

August 2 sessions included an overview of the project and a look to the future by Neville Davies of Census at School UK and creator of the International Census at School program. Country representatives then gave updates from their countries (Rebecca Nichols, United States; Kate Richards, United Kingdom; Angela McCanny and John Brewster, Canada; Chris Wild, New Zealand; Delia North, South Africa; and Michiko Watanaba and Kanzunor Yamaguchi, Japan). There also was time spent remembering Martha Aliaga, former ASA director of education, who was instrumental in bringing Census at School to the United States.

Additionally, Stephen Miller taught a separate workshop in the morning to introduce middle- and high-school teachers and statisticians interested in getting involved in U.S. Census at School to the program. Workshop participants learned about the Census at School program, how it aligns with the Common Core State Standards in Mathematics, how to register a class, and what resources are available for teachers using Census at School. Additionally, participants actively collected data, learned how to enter it into the Census at School database, and selected random samples of data entered by students. Participants generated statistical questions that can be answered using Census at School data, used software to make numerical and graphical summaries of the data, and answered the statistical questions.

U.S. teachers and statisticians participating in the morning workshop joined the international group in the afternoon, when international leaders

demonstrated international Census at School curriculum resources, statistics software, and activities. All attendees were invited to a dinner that evening and a presentation given by Eric Newburger of the U.S. Census Bureau.

August 3 workshop sessions for international leaders included discussions about evaluating the effectiveness of Census at School programs, growing support for Census at School, building relationships with official census organizations, expanding the program, funding, sharing

resources, identifying common concerns, volunteer support, and strategies to address concerns.

Getting Involved

As of August 2012, there were more than 8,500 students from 41 states plus the District of Columbia who had participated in the U.S. Census at School program. Teachers who are comfortable with statistical problemsolving and data analysis can begin using the program in their classes at any time. There are detailed instructions, five instructional webinars, a PowerPoint presentation, lesson plans, and other resources on the website.

The ASA is seeking champions to expand the U.S. Census at School program. Champions can be teachers who use the program in their classes or statisticians and statistics educators who assist teachers who are not yet comfortable with statistics and statistical problemsolving. There is a variety of ways to get involved, including sharing information about the program with local schools, writing lesson plans, and teaching local workshops for teachers. For those interested in teaching local workshops, the ASA will provide materials.

The ASA also is building online Census at School resources and seeking those interested in writing new lesson plans or adapting international Census at School lesson plans for U.S. data. Those teaching grades 4–12 pre-service teachers might consider encouraging them to create lesson plans using U.S. Census at School data and submit them to the STatistics Education Web (STEW), an online bank of peer-reviewed lesson plans for K–12 teachers. STEW lesson plans relating to Census at School also will be published on the Census at School website in the resources area.

Educators teaching or advising undergraduate or graduate statistics students might consider encouraging or requiring them to get involved in service learning by working with grades 4–12 teachers and students to incorporate Census at School and enhance their statistical problemsolving skills.

For more information about the U.S. Census at School program, see the February 2012 *Amstat News* article at <http://magazine.amstat.org/blog/2012/02/01/censusatschool-2> and the U.S. Census at School website at www.amstat.org/censusatschool. Other ideas to enhance and expand the program are welcome. Contact Rebecca Nichols, ASA director of education, at rebecca@amstat.org about these or any efforts regarding service learning or other activities. ■

2012 Educational Ambassador from Botswana Attends JSM



As the 2012 ASA Educational Ambassador, Keamogetse Setlhare of the University of Botswana attended the Joint Statistical Meetings (JSM) in San Diego, California, to participate in Continuing Education (CE) courses.

The Educational Ambassador Program is an ASA outreach effort launched by the

Committee on International Relations in Statistics to foster international collaboration and enhance statistics education worldwide. The program subsidizes an ambassador from a developing country to attend JSM and take CE courses. It also provides a one-year ASA membership.

Candidates are required to have a PhD in statistics, an interest in teaching, and be open to study in new areas of research. After attending CE courses in an emerging area of research, the educational ambassador returns to his or her country and teaches the subject matter learned in the CE course(s) within the next year to at least 10 students.

While at JSM, Setlhare took courses in Bayesian methods and computation, simulation and sampling of data, and analysis of univariate and multivariate extremes, as well as several computer technology workshops.

Since the program launch in 2005, the Committee on International Relations in Statistics has chosen educational ambassadors from Argentina, Ethiopia, Vietnam, Morocco, Armenia, Costa Rica, and Botswana.

Nominations Sought for COPSS Awards

Nominations are being sought for the following awards presented by the Committee of Presidents of Statistical Societies (COPSS).

The **Fisher Lectureship** is awarded for outstanding contributions to aspects of statistics and probability that closely relate to the scientific collection and interpretation of data. The award exists to recognize the importance of statistical methods for scientific investigations. The hour-long lecture is delivered during JSM. Eligible nominations should be sent in PDF format by December 15 to Kathryn Roeder, committee chair, at kathryn.roeder@gmail.com.

The **Presidents' Award** is presented in recognition of outstanding contributions to the statistics profession. It is typically granted to an individual who has not yet reached his or her 41st birthday. In the special case of an individual who has received his or her statistically related terminal degree fewer than 12 years prior to the nomination deadline, the individual will be eligible if he or she has not yet reached his or her 46th birthday during the year of the award. Eligible nominations should include a current curriculum vitae, the nominee's date of birth, a nomination letter (up to three pages), and up to five supporting letters. Nominations should be sent in PDF format by January 15, 2013, to Raymond J. Carroll, committee chair, at copsspresidents2013@gmail.com.

The **George W. Snedecor Award**, established in 1976, honors an individual who has been instrumental in the development of statistical theory in biometry. The award is for a noteworthy publication in biometry within three

years of the date of the award. Starting in 1991, this award has been given in odd years and consists of a plaque and cash award. Nominations of an individual and an associated publication or publications should be sent by January 15, 2013, to Nilanjan Chatterjee, committee chair, at chattern@mail.nih.gov.

The **Florence Nightingale David Award** is presented biennially to recognize a female statistician who exemplifies the contributions of Florence Nightingale David, an accomplished statistician in combinatorial probability theory and the first recipient of the Elizabeth L. Scott Award. The criteria for the award are excellence as a role model to women, excellence in statistical research, leadership of multidisciplinary collaborative groups, statistics education, and service to the profession. The award was established in 2001 and

is sponsored jointly by COPSS and the Caucus for Women in Statistics. No member of the award committee or officer of the Caucus of Women in Statistics is eligible to receive the award during his or her term of service. Eligible nominations shall be based on a nomination letter, letters of support, curriculum vitae, and other appropriate documentation as requested by the award committee. Nominations should be sent by January 15, 2013, to Nancy Reid, committee chair, at reid@utstat.utoronto.ca.

These awards are jointly sponsored by the American Statistical Association, Institute of Mathematical Statistics, International Biometric Society (ENAR and WNAR), and Statistical Society of Canada. Detailed award criteria and nominating procedures are available at www.niss.org/copss. ■

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The Jeanne E. Griffith Mentoring Award

Stephanie Shipp and Clyde Tucker, Jeanne E. Griffith Committee



Recent Jeanne E. Griffith awardees—Deborah Griffin, Jenise Swall, and Kevin Cecco—with this year's awardee, William Mockovak (third from left)

William P. Mockovak was recently announced winner of this year's Jeanne E. Griffith Mentoring Award for being a champion role model and mentor.

Mockovak is chief of the Behavioral Science Research Center in the Bureau of Labor Statistics (BLS). His professional experience covers a wide range of areas, including program evaluation, interviewer training, computer-assisted information collection (CASIC), questionnaire design, usability testing, and cognitive interviewing.

After service in the U.S. Air Force, Mockovak joined the U.S. Census Bureau's Center for Social Science Research in September 1978. Over the next 20 years, he held a number of positions of ever-increasing responsibility at the Census Bureau. In 1998, he moved to his current position at BLS. In this role, he supervises behavioral scientists whose primary responsibilities are to identify, investigate, and reduce measurement error in BLS surveys. His responsibilities include cognitive testing of survey questions, questionnaire design, usability testing, nonresponse bias analyses, program evaluation, and basic research.

Mockovak has degrees from the U.S. Air Force Academy (BS, psychology), The Ohio State University (MA, human performance psychology), and The Pennsylvania State University (PhD, educational psychology). He received a Bronze Medal award from the Census Bureau for significant contributions to the development of major new approaches in training, managing, and supporting field personnel. He also received BLS awards for outstanding management

performance and team awards covering work on the redesign of the Mass Layoff Statistics Program and use of the Internet for data collection.

As head of the Behavioral Science Research Center, Mockovak has successfully mentored a generation of younger staff members over almost 15 years. John Eltinge, associate commissioner of the Office of Survey Methods Research, nominated Mockovak for this award. He said he has "developed very deep respect for Bill's extraordinary style of quiet leadership of the Behavioral Science Research Laboratory and his mentoring of junior and mid-level colleagues. For example, he has a remarkable talent for carefully calibrated integration of relatively junior colleagues into very complex research projects. He does this in a way that leads to individual work assignments that are challenging (but not overwhelming) and that lead to increasing levels of professional growth and career recognition for his colleagues."

Those who have worked for Mockovak over the years echoed Eltinge's words in their supporting letters, describing him as a wonderful mentor who has helped staff transition from junior to mid-level, teaching them how to work with program staff in presenting new ideas and critiquing existing approaches, and acting as a role model by his modesty and generosity and his dedication to his staff and work.

Nominations for 2013 Award

The Jeanne E. Griffith Mentoring Award is intended to encourage mentoring of junior staff in the federal, state, or local government statistical community. It is presented annually to a supervisor, technical director, team coordinator, or staff member who is nominated by coworkers and/or supervisors and selected by members of the Jeanne E. Griffith Mentoring Award Selection Committee.

Jeanne E. Griffith worked for more than 25 years in the federal statistical system. Throughout her career, and especially in her senior management positions at the National Center for Education Statistics and National Science Foundation, one of Griffith's highest priorities was to mentor and encourage junior staff to learn, grow, and recognize and seize career opportunities as they came along. After her death from breast cancer in 2000, the Jeanne E. Griffith Mentoring Award was set up in her honor.

To help sponsor the award and increase the amount of the honorarium, contact Stephanie Shipp at sshipp@ida.org.

To view more photos and a list of sponsors, visit <http://magazine@amstat.org>. ■

The *Pakistan Journal of Statistics and Operation Research (PJSOR)* recently published a special volume in honor of **Mir Masoom Ali**, an ASA Fellow and George and Frances Ball Distinguished Professor of Statistics Emeritus at Ball State University, on the occasion of his 75th birthday. The papers can be viewed at www.pjsor.com/index.php/pjsor/issue/current/showToc.

Jianqing Fan of Princeton and **Ker-Chau Li** of Academia Sinica (AS) and the University of California at Los Angeles were elected to Academicians of AS during the July 2012 convocation in Taipei, China. Becoming an AS Academician is a major honor for scholars of Chinese origin.

Nancy Flournoy, professor in the department of statistics at the University of Missouri's College of Arts and Sciences, is the recipient of the 11th annual Janet L. Norwood Award for Outstanding Achievement by a Woman in the Statistical Sciences. Spanning four decades, her rich diversification in academic appointments range from directorships at the Fred Hutchinson Cancer Research Center and National Science Foundation's Program in Statistics and Probability to chairs with American University and the University of Missouri (MU). Having recently stepped down as MU's chair of statistics, Flournoy is returning from sabbatical as professor. Her research interests in theoretical and applied statistics include clinical trials, adaptive sequential designs, transplantation biology and infectious disease, specifically cytomegalovirus at a key point prior to the AIDS epidemic. Her initial collaborative efforts on transplantation research with the team of E. D. Thomas led to that team receiving the Nobel Prize in Medicine in 1990.

Robert D. Gibbons was recently announced the Rema Lapouse Award recipient for 2012. The Rema Lapouse Award is granted annually to an outstanding recipient for excellence in psychiatric epidemiology.

Gibbons is an internationally renowned biostatistician and psychometrician with expertise in broad areas of mental health and environmental research. Since 2010, he has been the director of the Center for Health Statistics and professor of biostatistics in the departments of medicine, health studies, and psychiatry at The University of Chicago. Prior to that, he directed the Center for Health Statistics at the University of Illinois at Chicago. Major themes in his work include development of linear and non-linear mixed-effects regression models for the analysis of longitudinal data, analysis of environmental monitoring data and interlaboratory calibration, item response theory and computerized adaptive testing, and statistical methods in pharmacoepidemiology and drug safety.

Gibbons has written more than 200 peer-reviewed journal articles in various areas of statistical theory and practice and is an author of *Longitudinal Data Analysis*. He also wrote two environmental statistics texts: *Statistical Methods for Ground Water Monitoring* and *Statistical Methods for Detection and Quantification of Environmental Contamination*.

He is a member of the Institute of Medicine of the National Academy of Sciences, a Fellow of the American Statistical Association, and a member of the American College of Neuropsychopharmacology. He has received numerous awards for his research, including two Youden awards for contributions to interlaboratory calibration, the Harvard Award in Psychiatric Epidemiology and Biostatistics, and the American Statistical Association Award for Outstanding Statistical Applications.

James Landwehr and **Linda Young** are this year's recipients of the distinguished service awards from the National Institute of Statistical Sciences (NISS). The awards were presented by NISS director Alan Karr during the 2012 Joint Statistical Meetings.

The NISS distinguished service awards were established by the board of trustees in 2005 to recognize individuals who have given extraordinary service that significantly advances NISS and its mission. As Karr noted, the recipients "didn't have to do what they did for NISS, but did it because they believe in NISS and what it does for the statistics community."

Landwehr, who works at Avaya Laboratories, was recognized for his many years of service on the NISS

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Board of Trustees, which includes chairing the board for three years and serving this past year as chair of the board's Affiliates Committee.

Young, professor of statistics at the University of Florida, was acknowledged for her service on the board of trustees and leadership role in the NISS-NASS research program, which ran from 2009 to 2011.

For more information about NISS, visit www.niss.org.

The Johns Hopkins University professor **Thomas A. Louis** will join the U.S. Census Bureau through an interagency personnel agreement as the new associate director for research and methodology and chief scientist effective January 7, 2013.

Former Census Bureau director Robert Groves said, "I am overjoyed that we were able to attract a world-class scientist to lead the research directorate. Dr. Louis will add to the innovation Dr. Roderick Little brought to the position over his successful leadership. He will, no doubt, increase the rate of scientific discoveries, which permits the Census Bureau to do its work more efficiently."

The National Institute of Statistical Sciences (NISS) recently presented the 2012 Jerome Sacks Award for Cross-Disciplinary Research to **William Q. Meeker** of Iowa State University. Susan Ellenberg, chair of the board of trustees, announced the award during the 2012 Joint Statistical Meetings. The annual award, named in honor of the founding director of NISS, was established in 2000 to recognize "sustained, high-quality cross-disciplinary research involving the statistical sciences."

Meeker received the award for outstanding sustained research that develops, implements, documents, communicates, and teaches statistics for the solution of relevant engineering and cross-disciplinary problems, especially in reliability, accelerated testing, reliability software, degradation data analysis, and statistical methods for nondestructive evaluation.

The board of directors of the Council of Professional Associations on Federal Statistics (COPAFS) recently announced the appointment of **Katherine R. Smith** as executive director. Smith comes to COPAFS from the American Farmland Trust (AFT), where she was the chief economist and vice president for programs. Prior to her position at AFT, she worked for 20 years in progressively responsible positions at the Economic Research Service of the U.S. Department of Agriculture, including as administrator for her last five years. ■

Obituaries

Sung C. Choi

Sung C. Choi, 81, passed away on July 21, 2012.

Born in South Korea, Choi came to the United States for his education, earning a BS in mathematics and an MA in statistics from the University of Washington. He went on to earn a PhD in biostatistics from UCLA in 1966. He was supported by a predoctoral fellowship in biometry from the National Institutes of Health (NIH).

Choi began a career in academia in the department of applied mathematics at Washington University in St. Louis, Missouri. He served as chair of the program in statistics from 1969–1974 in the school of engineering and applied sciences and, in 1978, moved to Richmond, Virginia, to join the department of biostatistics in the Medical College of Virginia (MCV) of Virginia Commonwealth University (VCU) as a professor. In 1989, he was given a joint appointment as professor in the Division of Neurosurgery at MCV/VCU. He served as the primary adviser for two postdoctoral trainees, seven doctoral students, and four MS students over the course of his career.

Choi was a prolific writer, having published two books, three book chapters, five government publications, and more than 100 peer-reviewed publications. His methodological research focused on design and statistical issues related to clinical studies of severe head injury, including misclassification of primary outcome measures, interim analyses with delayed observations, and sequential methods of estimation. He was a Fellow of the American Statistical Association, served as a referee for many biomedical and statistical journals, reviewed grants for the NIH, and served as a consultant for multiple pharmaceutical companies and health sciences centers.

Harold Young, professor and chair of neurosurgery at VCU, described Choi as "a great partner of the original head injury program" at VCU and an "indispensable part of the team." For more than two decades, Choi was the principal investigator of the Head Injury Biostatistics Center, which supported the clinical research conducted by the Head Injury Clinical Research Center at MCV, a NIH-sponsored center.

Choi's colleagues remember him as a quiet, unassuming, and modest person, as well as a "solid citizen" in the department, willing to serve as needed. His humor and encouragement to students and faculty will be missed. His family noted that the department of biostatistics at VCU was an important part of his life, as were the colleagues, staff, and students with whom he had the pleasure of working during his 25 years there.

Lester R. “Randy” Curtin

Lester R. “Randy” Curtin, who worked at the Centers for Disease Control and Prevention’s National Center for Health Statistics, died June 20 at his home in Huntingtown, Maryland. He was 60.

Curtin joined the National Center for Health Statistics in the late 1970s. He was an expert on survey design and his methodologies helped improve health statistics’ accuracy. He worked for many years in the Mortality Statistics Branch and helped compile data that enhanced the detection of changes in mortality trends. He also helped design health surveys and studies.

Curtin was born in Trenton, New Jersey. He was a 1973 mathematics graduate of The University of North Carolina at Chapel Hill and earned a doctorate in biostatistics from UNC in 1978.

John S. de Cani

Jean Dickinson Gibbons and Samuel Litwin

John S. de Cani passed away on August 8, 2012, in New York City. Born on May 8, 1924, in Canton, Ohio, he spent most of his life as a member of the statistics department of the Wharton School, University of Pennsylvania, and served as department chair from 1971 to 1978. The breadth of his scientific work illustrates the possible diversity of a career in statistics. He contributed to general statistical theory, especially the design of experiments; his work also included applications to business, law, the military, anthropology, psychology, economics, education, biology, and medicine. Besides statistics, de Cani contributed to econometrics, operations research, and mathematical programming.

He was active in civil liberties, testifying as an expert witness in racial discrimination in employment litigation. He risked his life to testify about the statistical significance of racial discrimination in jury selection in the South. He also collaborated with biologists and pharmaceutical companies in the design of clinical trials for medical research.

de Cani’s other interests were many and varied. He was active in university administration and politics and supervised many PhD student dissertations. He loved listening to classical music, particularly Beethoven quartets, and spent many pleasant hours after work over drinks with colleagues and other friends. These get-togethers were often held at the University of Pennsylvania Faculty Club, where he served as president.

He was elected a Fellow of the American Statistical Association in 1978. He was also the

recipient of the Lindback Foundation and Sigma Kappa Phi awards for distinguished teaching. de Cani was a Fulbright scholar at the Norwegian School of Economics. During World War II, he completed 38 missions as a radio operator on B-24 bombers as a member of the U.S. Army Air Corps. After the war, he earned a BS in mathematics from the University of Wisconsin, followed by MBA and PhD degrees in statistics from the Wharton School. He is survived by his beloved partner, Joanna Williams, professor at Teachers College, Columbia University.

Bob Hodges

Bob Hodges died on January 26, 2012, in Seneca, South Carolina, of congestive heart failure. Born on February 21, 1933, he served in the United States Army Reserve and began college at Georgia Institute of Technology, ultimately completing his bachelor’s and master’s degrees at Georgia State University. He earned a PhD in marketing, statistics, and psychology from The University of Texas at Austin.

Hodges spent most of his adulthood in Richmond, Virginia, teaching business statistics and marketing at the University of Richmond, Virginia Commonwealth University, Christopher Newport University, and The George Washington University while also running Hodges & Associates, a marketing research firm.

A lifelong technology enthusiast, Hodges programmed mainframes, flew airplanes, owned early versions of laptop computers and mobile phones, and took pride in writing his own marketing software applications. An avid cook and traveler, he was active in the Presbyterian church and YMCA. A loving friend, father, and partner, he is survived by his wife, Marlane Fairleigh Hodges.

Steve Samuels

Steve Samuels passed away July 26, 2012, after a long battle with lung cancer. Emeritus professor at Purdue University, Samuels was born in Brooklyn, New York, and grew up on Long Island. He completed his undergraduate work at MIT and earned his PhD from Stanford. He joined the Purdue faculty in 1963 as one of the original members of the department of statistics. Samuels headed many important committees both at Purdue and in the broader statistical community, including the Statistics in Sports Section of the ASA. Samuels retired in 2003. Read more about his life at www.legacy.com/obituaries/jconline/obituary.aspx?pid=158764122#fbLoggedOut.

sectionnews

Biometrics

The Biometrics Section held its annual business committee meeting at this year's Joint Statistical Meetings (JSM), during which they shared election appointments, summarized past conferences, and announced the winners of several section awards.

The section appointed Wei Sun as the 2013 JSM Program chair, Doug Schaubel as the 2013 ENAR Program chair, and Donglin Zeng as the 2013 Continuing Education chair. Also, Mike Daniels is the new chair-elect-elect, Yu Shen is the section's 2013–2014 secretary/treasurer, and Limin Clegg is the Council of Sections representative for 2013–2015.

Another highlight of the business meeting was a review of the ENAR meeting that took place in Washington, DC, from April 1–4.

Also at the meeting, Barry Graubard gave a brief account of David Byar, after whom the section's young investigator award is named. This year's winner is Yang Ning, from The Johns Hopkins University.

This year's travel award winners also were named and include the following:

Huaihou Chen, Columbia University, for “A Marginal Approach to Reduced-Rank Penalized Spline Smoothing with Application to Multilevel Functional Data” with co-authors Yuanjia Wang, Myunghee Cho Paik, and H. Alex Choi

Shuo Chen, Emory University, for “A Bayesian Hierarchical Framework for Modeling Brain Connectivity of Neuroimaging Data” with co-author F. DuBois Bowman

Jeff Goldsmith, The Johns Hopkins University, for “Corrected Confidence Bands for Functional Data Using Principal Components” with co-authors Sonja Greven and Ciprian Crainiceanu

Min Jin Ha, The University of North Carolina, for “Testing and Estimation of Partial Correlation Networks” with co-author Fred A. Wright

Peisong Han, University of Michigan, for “Conditional Empirical Likelihood Inference for Unbalanced Longitudinal Data” with co-authors Peter X.-K. Song and Lu Wang

Yen-Tsung Huang, Harvard University, for “Joint Analysis of SNP and Gene Expression Data in Genome-Wide Association Studies” with co-authors Xihong Lin and Tyler VanderWeele

Han Liu, The Johns Hopkins University, for “The Nonparanormal Skeptic” with co-authors

Fang Han, Ming Yuan, John Lafferty, and Larry Wasserman

Jennifer Sinnott, Harvard University, for “Omnibus Risk Assessment via Accelerated Failure Time Kernel Machine Modeling” with co-author Tianxi Cai

Applications are invited for the 2013 Byar Young Investigator Award and Biometrics Section travel awards; the deadline is December 1.

Finally, Section Chair Dianne Finkelstein raised the prospect of more active participation in the WNAR annual meeting. In the past, the section has not participated formally, but there was considerable interest in expanding the section's role.

Complete minutes of the meeting will be made available at www.bio.ri.ccf.org/Biometrics.

On another note, the section is sponsoring a symposium titled “Statistics in Biomedical Research: Making and Translating New Discoveries,” to take place November 10 at the Natcher Conference Center in Bethesda, Maryland. Registration is free, but required. For information, visit <http://ncifrederick.cancer.gov/events/BiomedicalResearch>.

Quality and Productivity

The Section on Quality and Productivity (Q&P) is happy to welcome Di Michelson as chair-elect and Ming Li as program chair-elect for 2013. If any section member would like to nominate a candidate for an elected office (chair or program chair) or appointed office for 2013, please email the nomination to Teresa Utlaut at theresa.l.utlaut@intel.com.

Three members of the section were elected as ASA Fellows this year: Jeffrey Hooper of BT Group US&C, Dongseok Choi of Oregon Health and Science University, and Joan Hu of Simon Fraser University.

The 2013 Quality and Productivity Research Conference will be held June 5–7 at GE Global Research in Schenectady, New York. A short course will be presented by Stephan Steiner from the University of Waterloo on June 4. For details, visit www.qprc2013.com or contact Martha Gardner at martha.gardner@research.ge.com.

Members can submit JSM 2013 invited session proposals to Willis Jensen at wjensen@wlgore.com.

Statistics and the Environment

The Section on Statistics and the Environment (ENVR) is sponsoring a student paper competition on the topic of environmental statistics. Papers can consist of novel approaches to the analysis of environmental data, new methodology with a clear application to an environmental statistical issue, or application of statistics to environmental problems. The selected winner will present his/her paper in a

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section news in
its entirety, visit
[http://magazine.
amstat.org](http://magazine.amstat.org).

contributed session at the Joint Statistical Meetings (JSM) in August of 2013 and receive a \$1,000 stipend toward reimbursing the expenses for attending JSM. The deadline for submission is December 15.

To be eligible, applicants must be in a college program. Also, applicants must submit an abstract to the ASA by February 1, 2013, and request a presentation in an ENVR session. Applicants must follow all rules required for paper submission and attendance at JSM.

This award will recognize an environmental statistics contribution with a certificate and recognition during the ASA ENVR section business meeting/mixer at JSM. For information about student paper awards, visit www.amstat.org/sections/student-paperawards.cfm. Application details can be viewed at <http://magazine.amstat.org/?cat=17>.

Statistics Education

Reported by Larry Lesser

The Statistics Education Section had a productive JSM 2012, sponsoring or co-sponsoring 11 invited panels/sessions, 14 topic-contributed panels/sessions, 10 contributed paper sessions, 12 roundtable discussions, and a poster session.

Also, many section members were recognized. Michael Posner won the 2012 Waller Education Award; Thomas Willemain won the National Mu Sigma Rho's 2012 William D. Warde Statistical Education Award; and Anna Jonsdottir, a student at the University of Iceland, won the section's best contributed paper of JSM 2011. Additionally, several members became Fellows. The student award will be named for ASA executive director and longtime education advocate Ron Wasserstein.

Also at JSM 2012, Nathan Tintle, Jill VanderStoep, Vicki-Lynn Holmes, Brooke Quisenberry, and Todd Swanson won the *Journal of Statistics Education (JSE)* Best Paper Award for "Development and Assessment of a Preliminary Randomization-Based Introductory Statistics Curriculum" in the March 2011 issue. Another winner was John Gabrosek, who received a "retiring editor certificate of appreciation" for his work as 2010–2012 *JSE* editor.

At the section's business meeting, committees were formed in membership/fundraising, Common Core, Fellows nominations, and GAISE revision. Patty Frazer Lock gave a progress report on MAA guidelines for introductory statistics courses taken by mathematical sciences majors.

Along with the award winners, the 2012 section officers were announced. The officers include Amy Wagaman, 2013 JSM Program chair; Jim Albert, chair-elect; Dexter Whittinghill, secretary/treasurer; and Brigitte Baldi and Herle McGowan, Executive Committee at large members. Also, Dick De Veaux was elected as a Council of Sections Board representative and Tom Short

was elected vice chair of the Council of Sections Governing Board.

This year, the section contributed support toward the Mathematical Association of America's Project NeXT. Funding requests are due by February 1, 2013, to Deborah Nolan at Nolan@stat.berkeley.edu.

The section newsletter publication schedule changed last year from semiannual to annual (early fall) as an archival digest, with members and officers able to relay more timely communications and post announcements through the centralized communication tools of the Section's ASA Community site (go to <http://community.amstat.org> and select "My Communities").

Statistics in Epidemiology

The Statistics in Epidemiology (SIE) section would like to congratulate the following winners of the 2012 SIE Young Investigator Awards:

Xinxin Dong, University of Pittsburgh

Brianna Heggseth, University of California at Berkeley

Chen Hu, University of Michigan

Xiaobi (Shelby) Huang, Merck & Co.

Andrew Jaffe, The Johns Hopkins University

Stephanie Kovalchik, National Cancer Institute

Fu-Wen Liang, The University of Texas

Sandra Mohammed, University of California at Davis

Ming Wang, Emory University

Hong Zhu, The Ohio State University

Cory Zigler, Harvard University

Jose Zubizarreta, University of Pennsylvania

Details for the 2013 Young Investigator award competitions will be announced in November.

Survey Research Methods

The Survey Research Methods Section (SRMS) was well represented at this year's JSM in San Diego, California. The section had five invited, 16 topic-contributed, and 13 contributed sessions. There was one poster session with 17 posters and two roundtables, one led by Lars Lyberg on total survey error and one led by Joe Sakshaug on linking administrative and survey data sets. The section also had a Continuing Education course, Paradata in Survey Research, taught by Frauke Kreuter and a technology workshop, SAS Procedures for Analyzing Survey Data, taught by Pushpal Mukhopadhyay.

Kreuter is incoming program chair-elect for SRMS.

2012

December

To view the entire list of statistics meetings and workshops, visit www.amstat.org/dateline.

***2–7—68th Annual Deming Conference on Applied Statistics, Atlantic City, New Jersey**

For more information, visit www.demingconference.com or contact Walter Young, 16 Harrow Circle, Wayne, PA 19087; demingchair@gmail.com.

10–12—SAMS FODAVA Workshop on Interactive Visualization and Analysis of Massive Data, Research Triangle Park, North Carolina

For details, visit www.samsi.info/workshop/samsi-fodava-workshop-interactive-visualization-and-analysis-massive-data-december-10-12-20 or contact Jamie Nunnally, 19 T. W. Alexander Drive, Research Triangle Park, NC 27709; (919) 685-9350; info@samsi.info.

15–17—Twenty-First International Conference on Interdisciplinary Mathematics, Statistics, and Computational Techniques (IMSCT 2012-FIM XXI), Chandigarh, India

For more information, visit imsct2012.puchd.ac.in or contact Kalpana Mahajan, Department of Statistics, Panjab University, Chandigarh, International 160014, India; 91-172-2541776; stat.puchd@gmail.com.

21–23—6th International Conference of IMBIC on Salt Lake City, Kolkata, West Bengal, India

For details, visit www.imbic.org/forthcoming.html or contact Avishek Adhikari, AH 317, Salt Lake City, Sector 2, Kolkata, WB, International 700091, India; 00913323598617; msast.paper@gmail.com.

24–25—Young Statisticians Meet: An International Conference 2012, Burdwan, India

For more information, visit www.buruniv.ac.in/Notices/UBUR_2012032_NOT_WEBPAGE.pdf or contact Arindam Gupta, Department of Statistics,

Burdwan University, Golapbag, Burdwan, International 713104; 919433261178; confbu@gmail.com.

27—Eighth International Triennial Calcutta Symposium on Probability and Statistics, Kolkata, India

For more information, visit <http://triennial.calcuttastatisticalassociation.org> or contact Arindam Sengupta, 35 Ballygunge Circular Road, Department of Statistics, University of Calcutta, Kolkata, International 700019, India; +91-9433590336; caltri8@gmail.com.

2013

January

2–5—IISA Conference: Statistics, Science, and Society: New Challenges and Opportunities, Chennai, India

For more information, visit [www.iisaconference.info](http://iisaconference.info) or contact Subrata Kundu, Rome Hall 557, 801 22nd St. NW, Washington, DC 20052; (202) 994-6355; kundu@gwu.edu.

6–10—ISBA Regional Meeting and International Workshop/Conference on Bayesian Theory and Applications (IWCBA), Varanasi, India

For details, visit www.bhu.ac.in/isba or contact Satyanshu Upadhyay, Department of Statistics, Banaras Hindu University, Varanasi, International 221005, India; +91-9918922333; iwcba.sku@gmail.com.

»18–19—Workshop on New Directions in Monte Carlo Methods, Gainesville, Florida

For more information, visit www.stat.ufl.edu/symposium/2013/index.html or contact Robyn Crawford, 103 Griffin-Floyd Hall, Gainesville, FL 32615; (352) 392-1942; robyn@stat.ufl.edu.

February

»7–8—The Young Statisticians Conference 2013, Melbourne, Australia

For details, visit www.ysc2013.com or contact Susanna Cramb, Clayton

Road, Melbourne, International 3000, Australia; SusannaCramb@cancerqld.org.au.

»21–23—American Statistical Association Conference on Statistical Practice, New Orleans, Louisiana

For more information, visit www.amstat.org/meetings/csp/2013 or contact ASA Meetings, 732 North Washington St., Alexandria, VA 22314; (703) 684-1221; meetings@amstat.org.

March

5–7—New Techniques and Technologies for Statistics (NTTS 2013), Brussels, Belgium

For details, visit www.ntts2013.eu or contact NTTS 2013 Secretariat, Unit B1, Luxembourg, International L-2920, Luxembourg, 00352430138327; ESTAT-NTTS@ec.europa.eu.

13–15—IAENG International Conference on Data Mining and Applications, Hong Kong

For details, visit www.iaeng.org/IMECS2013/ICDMA2013.html or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK, Hong Kong; (852) 3169-3427; imecs@iaeng.org.

»18–23—3rd Joint Statistical Meeting Deutsche Arbeitsgemeinschaft Statistik, Freiburg, Germany

For more information, visit dagstat2013.uni-freiburg.de or contact Jan Beyersmann, Eckerstr. 1, Freiburg, International 79104, Germany; dagstat2013@imbi.uni-freiburg.de.

April

22–25—7th Meeting of the Eastern Mediterranean Region International Biometric Society, Tel Aviv, Israel

For details, visit event.pwizard.com/ims or contact Ilana Lobel, The Gertner Institute for Epidemiology and Health Policy Research, Tel Hashomer, International 52621, Israel; 972-3-5305390; ilanal@gertner.health.gov.il.

»26—Philosophy of Information: The Value of Information, Washington, DC

For more information, visit www.american.edu/cas/economics/info-metrics/workshop/workshop-2013-spring.cfm or contact Amos Golan, 4400 Massachusetts Ave. NW, Kreeger 104, Washington, DC 20016; (202) 885-3770; info-metrics@american.edu.

May

»13–17—SAMSI Undergraduate Modeling Workshop, Research Triangle Park, North Carolina

For details, visit www.samsi.info/workshop/undergraduate-modeling-workshop-may-13-17-2013 or contact Jamie Nunnally, 19 T. W. Alexander Drive, Research Triangle Park, NC 27709; (919) 685-9350; nunnally@niss.org.

June

10–12—4th Nordic-Baltic Biometric Conference, NBBC13, Stockholm, Sweden

For more information, visit nbbc13.org or contact Marie Jansson, Box 281, Stockholm, International SE-17177, Sweden; +46 8 52486150; Marie.Jansson@ki.se.

»13–15—MedicReS World Congress on Good Medical Research, Vienna, Austria

For more information, contact Jenny Knapp, Mariahilfer Strasse 123/3, Vienna, International 1060, Austria; +43 1 599 99 8070; jenny.knapp@medicres.org.

July

»15–23—2013 Industrial and Mathematical Statistical Modeling Workshop, Research Triangle Park, North Carolina

For more information, visit www.samsi.info/workshop/2013-industrial-mathstat-modeling-workshop-graduate-students-july-15-23-2013 or contact Jamie Nunnally, 19 T. W. Alexander Drive, Research Triangle Park, NC 27709; (919) 685-9350; nunnally@niss.org.

20–25—29th European Meeting of Statisticians (EMS2013), Budapest, Hungary

For more information, visit www.ems2013.eu or contact Eszter Zsigmond, Szilágyi E. fs. 79., Budapest, International 1026, Hungary; +36 1 212 00 56; Ems2013@congress.hu.

August

***3–8—2013 Joint Statistical Meetings, Montréal, Québec, Canada**

For more information, contact ASA Meetings, 732 North Washington St., Alexandria, VA 22314-1943; (703) 684-1221; meetings@amstat.org.

24–31—59th ISI World Statistics Congress, Hong Kong, China

For more information, visit www.isi2013.hk or contact Hans Lucas, P.O. Box 24070, Den Haag, International 2490 AB, The Netherlands; isi@cbs.nl.

»25–29—34th Annual Conference of the International Society for Clinical Biostatistics, Munich, Germany

For details, visit www.iscb2013.info or contact Tanja Lypp, Landsberger

The following events are the latest additions to the ASA's online calendar of events. Announcements are accepted from education and not-for-profit organizations only. To view the complete list of statistics meetings and workshops, visit www.amstat.org/dateline.

* Indicates events sponsored by the ASA or one of its sections, chapters, or committees

» Indicates events posted since the previous issue

Str. 155, Munich, International 80687, Germany; +49 8954823462; med-3@interplan.de.

September

9–12—Seminar of the Austro-Swiss Region of the International Biometric Society, Dornbirn, Austria

For more information, contact Hanno Ulmer, Innsbruck Medical University, Schöpfstraße 41, Innsbruck, International 6020, Austria/Europe; +43512900370900; hanno.ulmer@i-med.ac.at.

Biopharmaceutical Applied Statistics Symposium

The 19th annual biopharmaceutical applied statistics symposium, BASS XIX, will be held November 5–9 at the Mulberry Inn Suites in historic Savannah, Georgia. At least 16 one-hour tutorials on diverse topics pertinent to the research, clinical development, and regulation of pharmaceuticals will be presented from November 5–7 by speakers from academia, the pharmaceutical industry, and the U.S. Food and Drug Administration (FDA). Four parallel two-day short courses will be presented November 7–9. Highlights of the symposium include the keynote address and reception on November 5 and the FDA biometrics session on November 7.

BASS is a nonprofit entity, sponsored by the department of biostatistics at Virginia Commonwealth University and the Jiann-Ping Hsu College of Public Health at Georgia Southern University. Its purpose is to raise funds for graduate fellowships in biostatistics.

Registration is now open at www.bassconference.org.

For more information, contact Karl Peace at bassxix2012@gmail.com or peacekarl@frontier.com.

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Alabama

■ Auburn University invites applications for the 12-month non-tenure track associate research professor faculty position of director of statistical consulting. Applicants must possess a PhD in statistics; we seek statistical consulting or postdoctoral experience. Further details available at www.auburn.edu/cosam/news/director-of-statistical-consulting1.htm. Review of applications starts on January 15, 2013. For more information about the department visit www.math.auburn.edu/. Auburn University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

California

■ University of California, Davis, Department of Statistics. Apply now - one open-rank tenure-track faculty position beginning 7/1/2013. Requires PhD in statistics or related field, research interest in statistical methodology, theory or computing for problems involving large/massive and complex data. Interests in scientific applications in bioinformatics, bio-medical imaging, or genomics are encouraged to apply. Application review begins 12/1/12 until position filled. See www.stat.ucdavis.edu/employment/academic for more information. UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, individuals with disabilities and veterans.

■ San Francisco VA Medical Center and NCIRE have an immediate opening for a statistician. Qualified applicant will have master's degree in statistics, biostatistics, epidemiology, or equivalent, and 3+ years experience in statistical analysis, data modeling, and advanced programming skills. SAS experience and ability to work with large national administrative datasets, such as VA and CMS datasets, highly preferred. Apply at www.ncire.org referring to job 2012-1888. EOE.

■ RAND Corporation is seeking PhD statisticians for 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*

Professional Opportunity listings may not exceed 65 words, plus equal opportunity information. The deadline for their receipt is the 20th of the month two months prior to when the ad is to be published (e.g., May 20 for the July issue). Ads will be published in the next available issue following receipt.

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.

for details or go to www.rand.org/statistics. Applications received by December 15, 2012, will receive priority. Applications must be submitted online following the instructions at www.rand.org/statistics/jobs.html (Job ID #3221). Send questions to Susan_Paddock@rand.org. EO/AA Employer.

Iowa

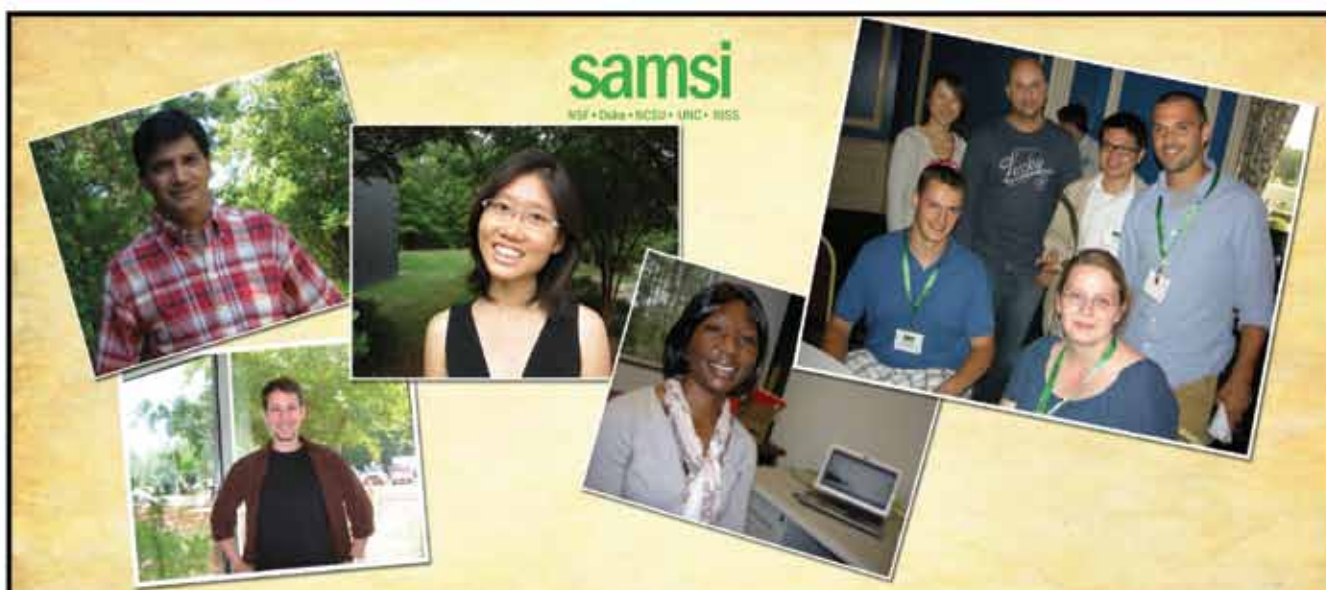
■ Drake University Actuarial Science Program invites applications for two full-time positions starting August 2013: (1) tenure-track assistant professor of actuarial science (PhD preferred, ABD considered), and (2) non-tenure-track Robb B. Kelly Professor of Actuarial Science and Risk Management (master's degree with actuarial credentials, or PhD/ABD required). View details and upload materials at <https://drake.hiretouch.com>. Reviews began Oct 1, 2012. Equal opportunity employer (EEO).

Massachusetts

■ The department of mathematics and computer science at the College of the Holy Cross invites applications for two full-time

tenure-track appointments in statistics beginning August 2013. Applicants w/backgrounds in theoretical, applied, or bio-statistics preferred. Candidates must demonstrate commitment to, and excellence in, undergraduate teaching and scholarly achievement. PhD required. This position carries a 3-2 teaching load with generous leaves for junior and senior faculty. <http://academics.holycross.edu/mathcs/statsearch>. College of the Holy Cross is an Affirmative Action/Equal Opportunity Employer.

■ Professor or Associate Professor/Division Chair of the Mathematics and Science Division. The mathematics and science division of Babson College invites applications for September 1, 2013, appointment at the rank of professor or associate professor if the candidate will soon be ready for promotion to professor. This position will include an initial three year appointment as division chair with the possibility of a three year extension. www.Click2Apply.net/gggy77n. EOE/AA.



Postdoctoral Fellowships for 2013-2014

Postdoctoral fellowships are available (up to 6) at the Statistical and Applied Mathematical Sciences Institute (SAMSIPD) for either of the two SAMSIPD Research Programs for 2013-14: **Computational Methods in the Social Sciences (CMSS)** and **Low-Dimensional Structure in High-Dimensional Systems (LDHD)**. Appointments will begin in August 2013 and will typically be for two years, although they can also be arranged for one year. Appointments are made jointly between SAMSIPD and one of its partner universities, where teaching is a possibility. Extremely competitive salaries, travel stipend, and health insurance will be offered.

The CMSS program will focus on statistical and computational methods applied to the social sciences, with a particular focus on up-to-date methods for exploiting the potential of large social science datasets. The three principal themes of the program will be:

- (a) Social Networks, with a focus on statistical design and inference problems, causal inference, respondent-driven sampling, event data and clustering;
- (b) Agent-Based Models, with a focus on data assimilation, calibration and statistical inference;
- (c) Statistical Methodology for Censuses and Surveys, covering such topics as complex models for survey data, statistical inference and asymptotics, missing data and data imputation, combining data from multiple surveys and the application of spatial statistics to small-area estimation.

For additional information on this program, please see: <http://www.samsipd.info/CMSS>

The LDHD program will address methodological, theoretical, and computational challenges posed by high-dimensional mathematical and statistical models with limited data. It will focus on low-dimensional structures that approximate or encapsulate the given data. Probability and statistics, geometry, topology, and computer science will be combined in theory and in applications such as image and signal analysis, networks, genetics and genomics, dynamical systems, and machine learning.

For additional information on this program, please see: <http://www.samsipd.info/LDHD>

Criteria for selection for SAMSIPD Postdoctoral Fellows include demonstrated research ability in statistical and/or applied mathematical sciences, interest and (to a lesser degree) experience in the SAMSIPD program areas and vision, together with strength in computation and in verbal and written communication. The deadline for full consideration is December 15, 2012, although later applications will be considered as resources permit.

In your cover letter, please specify which of the two SAMSIPD research programs you are applying to (CMSS or LDHD) and why you would be a good fit for SAMSIPD and that program.

To apply, go to mathjobs.org, SAMSIPD2013 Job #3759

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- 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

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

■ Massachusetts Institute of Technology Department of Mathematics. Mathematics department MIT seeking to fill combined teaching and research positions as instructor, assistant professor and higher, in statistics beginning September 2013. 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, 2012. (See full classified text at mathjobs.) Massachusetts Institute of Technology is an Equal Opportunity Affirmative Action Employer.

■ The Babson College Mathematics and Science Division invites applicants for tenure-track assistant professor position starting September 1, 2013. The ideal candidate will possess a terminal degree in statistics, analytics, or a related field or expect to complete the requirements for the degree by September 1, 2013, a proven teaching record with the desire to deliver statistics and analytics courses, and a strong research agenda. www.click2apply.net/9b6488s. EOE/AA.

Michigan

■ University of Michigan Biostatistics Department has a research faculty position in cancer research beginning prior to January 2013. Department seeks outstanding individuals with interests in the development of statistical methods, collaborative scientific research and teaching. Cancer research experience required. Information available at www.sph.umich.edu/biostat/jobs. Contact chair of Cancer Biostatistics Search Committee, Dept. of Biostatistics, SPHII, University of Michigan, 1415 Washington Heights, Ann Arbor, MI 48109-2029. Email: CancerBiostat2012@umich.edu. EOE/AA.

■ 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 #72722. 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.

New Mexico

■ Assistant/Associate Professor of Applied Statistics. The department of economics, applied statistics, and international business at New Mexico State University invites applications for a tenure-track assistant/associate professor of applied statistics, 9-month position. Doctorate required. Specialty in time series and/or spatial statistics preferred. Other fields considered. Position requires graduate and undergraduate teaching, research, and service. For full position announcement see www.nmsu.edu/~personell/postings/faculty/9265247.html EOE.

New York

■ Tenure-track positions in Statistics at Assistant/Associate Professorship Levels. Statistics/CIS department, Zicklin School of Business, Baruch College (CUNY). PhD in Statistics, good teaching ability and proven record or potential for strong research. Send a CV, three letters, of recommendation, research and teaching statements to: Statistics Search Committee, Statistics/CIS Department, Box 11-220, Baruch College, One Baruch Way, New York, NY 10010. Deadline: January 20, 2013. Equal Opportunity /Affirmative Action/Equal Access Employer.

■ New York University Stern School of Business Statistics Group, tenure-track assistant professor appointment in statistics. Candidates should have evidence of boundary-spanning interests across fields that reflect significant interfaces of statistics with areas of relevance in a business school. Expected that candidate will be productive researcher and effective teacher at both undergraduate and graduate levels. See www.stern.nyu.edu/experience-stern/about/departments-centers-initiatives/academic-departments/ioms/faculty-staff/position-openings/statistics/index.htm for details, including information on application procedure. www.stern.nyu.edu/ioms. New York University is an Affirmative Action/Equal Opportunity Institution.

North Carolina

■ NIEHS/NIH. Postdoc position for biostatistician with interest in epidemiology

to conduct epidemiological and methodological research for the recently completed Two Sister Study, a family-based GWAS of genetic and environmental risk factors for young-onset breast cancer. See www.sisterstudy.org/English/index1.htm and www.niehs.nih.gov/research/atniehs/labs/bb/staff/index.cfm for more information. Send CV, statement of research interests and contact information for 3 references to Clarice Weinberg at weinber2@niehs.nih.gov in Research Triangle Park, NC. www.sisterstudy.org/English/index1.htm The NIH is dedicated to building a diverse community in its training and employment programs.

Pennsylvania

■ Penn State University. Fixed-term faculty for innovative online applied statistics program. Excellence teaching applied statistics, experience in consulting and collaborative research. Requirements: PhD in statistics or related quantitative field. See www.mathjobs.org/jobs?joblist-514-3891 for more information. Submit cover letter, teaching statement, resume, four references to www.mathjobs.org. This is a fixed term position funded for one year from date of hire with possibility of refunding. www.stat.psu.edu. www.mathjobs.org/jobs?joblist-514-3891. Employment will require successful completion of background check(s) in accordance with University policies. Penn State is committed to affirmative action, equal opportunity and the diversity of its work force.

■ 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: hiring@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/EOE.

■ Pinney Associates, Pittsburgh (www.pinneyassociates.com) has an immediate opening for a senior biostatistician/data analyst. We provide strong science-based consultation to pharmaceutical and consumer healthcare clients. Responsibilities include conducting univariate/multivariate analyses;

summarizing findings for internal reports, FDA submissions, and professional publications. Experience developing trial protocols, sample size calculations, stat plans, and study reports strongly preferred. SAS proficiency essential. Requirements: Master's in statistics/equivalent skills, PhD preferred. www.pinneyassociates.com AA/EOE.

■ Penn State Statistics Department - Faculty Positions. Multiple tenure-track positions at all levels available in statistics department beginning August 2013. PhD in statistics or related field, excellent research and teaching credentials; particulars at www.stat.psu.edu. Please apply at mathjobs.org. Screening begins November 15. Employment will require successful completion of background check(s) in accordance with University policies. www.stat.psu.edu. Penn State is committed to affirmative action, equal opportunity and the diversity of its work force.

■ RAND Corporation is seeking PhD statisticians for 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 details or go to www.rand.org/statistics. Applications received by December 15, 2012, will receive priority. Applications must be submitted online following the instructions at www.rand.org/statistics/jobs.html (Job ID #3221). Send questions to Susan_Paddock@rand.org. www.rand.org/statistics. EO/AA Employer.

■ The statistics department at Temple University seeks a tenure-track, senior assistant/associate professor. 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 and three recommendation letters. For more information, www.fox.temple.edu/dept/statistics. Temple University is an Equal Opportunity/Affirmative Action Employer.

Texas

■ The department of mathematics and statistics invites applications for a tenure-track assistant professor position in statistics beginning fall 2013. A PhD degree is required. Apply for position number T96800 at <http://jobs.texasstate.edu>. Include

AMS standard cover sheet and vita. Have three letters of reference sent to Alex Wang, Hiring Committee Chair, Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409-1042. Review will begin immediately. *jobs.texastech.edu* EOE: Texas Tech is an AA/EO employer.

Wyoming

■ Tenure-track Assistant Professor, Statistics, beginning August 2013. Requirements include PhD in statistics or related field and excellence in both research and teaching at all levels. Seeking candidate with expertise in computational statistics. Valuable complementary interests include Bayesian statistics and interdisciplinary research. Collaborative opportunities exist both on campus and with NCAR. Full description and application instructions are at www.ezfacultysearch.com/uwyo/stats/10. The University of Wyoming is committed to diversity and endorses principles of affirmative action. We acknowledge that diversity enriches and sustains our scholarship and promotes equal access to our educational

mission. We seek and welcome applications from individuals of all backgrounds, experiences, and perspectives.

Canada Ontario

■ One tenure-track or tenured position in actuarial science. PhD in actuarial science, and excellence in teaching and research. Review of applications begins 11/15/2012 and continues until filled. Send letter, CV, and arrange to have three recommendation letters to Chair, Department of Statistics and Actuarial Science, University of Waterloo, 200 University Avenue West, Waterloo ON N2L 3G1, CANADA. <http://math.uwaterloo.ca/statistics-and-actuarial-science/faculty-positions>. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities.

■ University of Waterloo. One or more tenure-track or tenured positions in biostatistics. PhD in biostatistics, demonstrated

excellence in teaching and research or evident potential. Review of applications begins 11/15/2012 and continues until filled. Send letter, CV, and arrange to have three recommendation letters to Chair, Department of Statistics and Actuarial Science, University of Waterloo, 200 University Avenue West, Waterloo ON N2L 3G1, CANADA. <http://math.uwaterloo.ca/statistics-and-actuarial-science/faculty-positions>. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities.

■ University of Waterloo. One or more tenure-track or tenured positions in statistics. PhD in statistics, demonstrated excellence in teaching and research or evident potential. Review of applications begins 11/15/2012 and continues until filled. Send letter, CV, and arrange to have three recommendation letters to Chair, Department of Statistics and Actuarial Science, University of Waterloo, 200 University Avenue West, Waterloo ON N2L 3G1, CANADA. <http://math.uwaterloo.ca/statistics-and-actuarial-science/faculty-positions>.



BIostatistician ASSISTANT PROFESSOR or ASSOCIATE PROFESSOR

Non Tenure Line (Research)

PSYCHIATRY AND BEHAVIORAL SCIENCES

The Department of Psychiatry and Behavioral Sciences seeks a biostatistician to join the Department as an Assistant or Associate Professor in the Non-Tenure Line (Research).

The major criterion for appointment for faculty in the Non-Tenure Line (Research) is evidence of high-level performance as a researcher for whose special knowledge a programmatic need exists.

Faculty rank will be determined by the qualifications and experience of the successful candidate.

The successful applicant should have a doctoral degree in Biostatistics, Statistics, or a related field, related post-training work experience in an academic setting, and experience supervising statistical support staff. We are particularly interested in candidates with a strong record of research accomplishments, including extramural research funding, in the field of biostatistics that includes characterizing longitudinal mental health, neurocognitive, and neuroimaging trajectories across the lifespan and in aging. Candidates with at least 6-10 years of experience in psychiatric applications, significant research training, and a demonstrated track record in empirical research are strongly desired.

Stanford University is an equal opportunity employer and is committed to increasing the diversity of its faculty. It welcomes nominations of and applications from women and members of minority groups, as well as others who would bring additional dimensions to the university's research, teaching and clinical missions. Interested candidates should send a copy of their curriculum vitae, a brief letter outlining their interests, and the names of three references via e-mail only to:

Booil Jo, Ph.D. c/o Bevin DeMuth, bnpowers@stanford.edu

Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine
401 Quarry Road, Stanford, CA 94305

Phone: (650) 498-5107 / Fax: (650) 724-4794



at the UNIVERSITY of CHICAGO

NORC at the University of Chicago is an independent research organization headquartered in downtown Chicago with additional offices on the University of Chicago's campus, in the D.C. Metro area, Atlanta, and Boston. With clients throughout the world, NORC collaborates with government agencies, foundations, educational institutions, nonprofit organizations, and businesses to provide data and analysis that support informed decision making in key areas including health, education, economics, crime, justice, energy, security, and the environment. Learn more about NORC's leadership and experience in data collection, analysis, and dissemination at:

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<http://norccareers.silkroad.com>

NORC is an affirmative action, equal opportunity employer that values and actively seeks diversity in the workforce.

math.uwaterloo.ca/statistics-and-actuarial-science/faculty-positions. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities.

International

Russia

■ The Skolkovo Institute of Science and Technology (Skolkovo Tech) seeks candidates for tenured and tenure-track faculty positions in science, technology and innovation to begin Fall 2013 or thereafter. Skolkovo Tech is an innovative, new, private university located just outside of Moscow, Russia. Please visit <http://web.mit.edu/sktech/faculty-positions> for more information and submit application materials to <https://sktech-search.mit.edu> by December 15, 2012. EOE.

China

■ Non-Tenure-Track Teaching Position for Business Statistics in the Dept of ISOM. Applications will be accepted until the position is filled. Excellence in teaching, and

Survey Sampling Statistician

EOE

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 5307BR

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 nonresponse 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 5307BR in the space provided.



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UNIVERSITY OF PENNSYLVANIA PERELMAN SCHOOL OF MEDICINE

The Division of Biostatistics in the Department of Biostatistics and Epidemiology at the University of Pennsylvania Perelman School of Medicine seeks highly qualified candidates for standing faculty positions in both clinician educator (non-tenure) track and tenure track at the Assistant, Associate, or full Professor level. Academic rank will be commensurate with credentials and experience. A doctoral degree in Biostatistics, Statistics, or a related discipline is required. Review of applications will begin on September 15, 2012. Application will continue to be accepted after this date, until the positions are filled. The expected start date is July 2013 or later.

Clinician Educator track applicants will focus primarily on collaborative research as co-investigators, with secondary emphasis on methodological research. Applicants with collaborative research interests in translational science, health services, pediatrics, mental/behavioral health, comparative effectiveness research, and/or clinical trials are especially encouraged to apply. Applicants in other areas of research areas will also be considered.

Tenure track applicants will focus primarily on methodological research, with secondary emphasis on collaborative research projects within the School of Medicine. Applicants with biostatistical research interests in meta-analysis, structural equation modeling, psychometrics (test/scale development, item response theory), causal models, mediation analysis, instrumental variables, nonparametric statistics, and specialized biostatistical methods for next generation sequence data are especially encouraged to apply. Applicants in other areas of research areas will also be considered. There is a rich mix of ongoing biomedical research projects in the Perelman School of Medicine to provide motivation and opportunities for the development of novel statistical methods on wide ranging topics.

Candidates for both tracks are expected to have a strong commitment to teaching and must demonstrate outstanding research productivity. Primary teaching responsibilities include participation in Penn's Center for Clinical Epidemiology and Biostatistics academic programs.

The Graduate Group in Epidemiology and Biostatistics, jointly with the Department of Statistics in the Wharton School, offers degree programs leading to both the Doctor of Philosophy (PhD) and Master of Science (MS) in Biostatistics.

The University of Pennsylvania, founded by Benjamin Franklin, is a world-class research institution, located near the heart of Philadelphia. All of Penn's 12 schools are located within walking distance of one another. The Penn Perelman School of Medicine is one of the top ranked medical schools in NIH funding.

The University of Pennsylvania is an affirmative action/equal opportunity employer. Women and minorities are strongly encouraged to apply. Qualified applicants should send a cover letter indicating the specific position to which they are applying, curriculum vitae, three letters of reference, and a statement of research interests to:

Clinician Educator: Apply for this position online at: http://www.med.upenn.edu/apps/faculty_ad/index.php/g303/d3026

Tenure Track: Apply for this position online at: http://www.med.upenn.edu/apps/faculty_ad/index.php/g303/d3027

WILLIAMS COLLEGE Assistant Professor

The Williams College Department of Mathematics and Statistics invites applications for a tenure-track position in statistics, beginning fall 2013, at the rank of assistant professor (in an exceptional case, a more advanced appointment may be considered). We are seeking a highly qualified candidate who has demonstrated excellence in teaching and research, and who will have a Ph.D. by the time of appointment. The candidate will become the fourth tenure-track statistician in the department, joining a vibrant and active statistics group. Williams College is a private, residential, highly selective liberal arts college with an undergraduate enrollment of approximately 2,000 students. The teaching load is two courses per 12-week semester and a winter term course every other January. In addition to excellence in teaching, an active and successful research program is expected.

To apply, please send a vita and have three letters of recommendation on teaching and research sent to the Hiring Committee, Department of Mathematics and Statistics, Williams College, 18 Hoxsey Street, Williamstown, MA 01267. Teaching and research statements are also welcome. Evaluations of applications will begin on or after November 15 and will continue until the position is filled. All offers of employment are contingent upon completion of a background check. Further information is available upon request. For more information on the Department of Mathematics and Statistics, visit <http://math.williams.edu/>.

Williams College is a coeducational liberal arts institution located in the Berkshire Hills of western Massachusetts with easy access to the culturally rich cities of Albany, Boston, and New York City. The College is committed to building and supporting a diverse population of approximately 2,000 students, and to fostering an inclusive faculty, staff and curriculum. Williams has built its reputation on outstanding teaching and scholarship and on the academic excellence of its students. Please visit the Williams College website <http://www.williams.edu/>. Beyond meeting fully its legal obligations for non-discrimination, Williams College is committed to building a diverse and inclusive community where members from all backgrounds can live, learn, and thrive.

PhD required by employment start-date. The successful applicant is expected to play an important role in teaching and developing business statistics courses for undergraduate and MBA programs of the business school. Submit CV and three referees to: stat11@ust.hk. http://jobs.amstat.org/hr/jobdetail.cfm?job_id=4883315. The Hong Kong University of Science and Technology is an Equal Opportunity Employer.

Mexico

■ Visiting Positions Related to the International Year of Statistics and Mathematics of Planet Earth. CIMAT, Mexico. CIMAT calls for applicants for two 6- or 12-month visiting positions (January to December 2013). Candidates are sought to conduct research and activities oriented by the aims of the 2013 celebrations with impact on CIMAT academic programs. Expected monthly income \$4,000 US Cy. Further information at www.cimat.mx/index.php?m=541 EOE. ■

University of Warwick, United Kingdom

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- departmental base for around 540 undergraduates and 90 graduate students.

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- Reader in Statistics
- Assistant Professor in Statistics
- Assistant Professor in Statistics and Complexity
- Harrison Early-career Assistant Professor in Statistics (for 3 years)
- CRiSM Postdoctoral Research Fellow in Statistical Methodology (for 3 years)
- Warwick Statistics Postdoctoral Research Fellow (for 3 years)

The Department's current research interests span a broad range including Probability Theory, Statistical Theory, Statistical Methodology, Computational Statistics, Applied Probability, Applied Statistics and Stochastic Finance. Some of the above posts emphasize Statistical Methodology, Computational Statistics, Applied Statistics, Complexity Science and Stochastic Finance; others are open to researchers in any area of Probability or Statistics.

For full details of all posts see <http://warwick.ac.uk/statjobs>

To apply please visit the website below.
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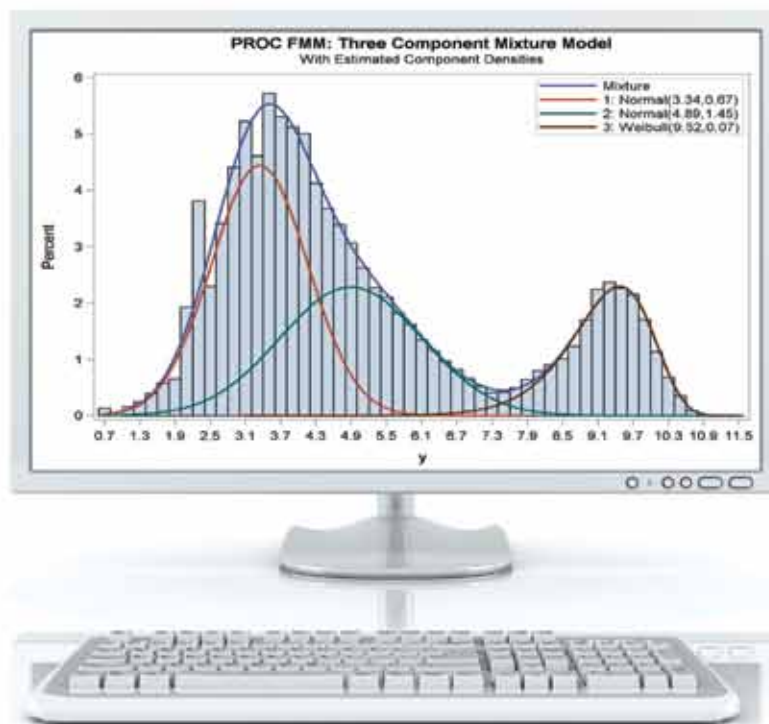
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