January 2010 • Issue #391

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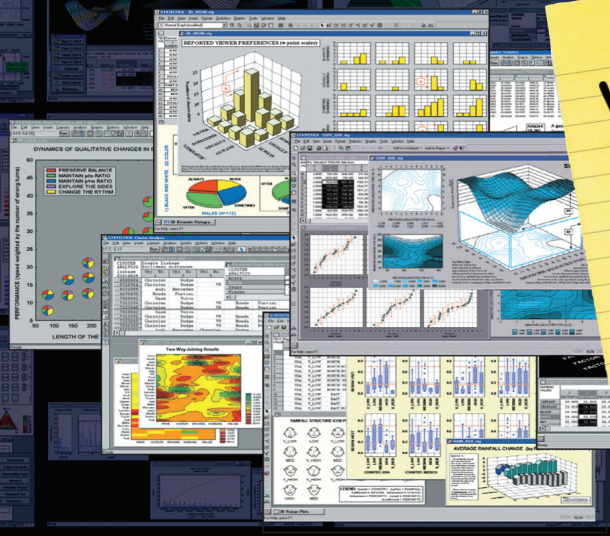

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Executive Director
Ron Wasserstein: *ron@amstat.org*

Associate Executive Director and Director of Operations
Stephen Porzio: *steve@amstat.org*

Director of Education
Martha Aliaga: *martha@amstat.org*

Director of Science Policy
Steve Pierson: *pierson@amstat.org*

Managing Editor
Megan Murphy: *megan@amstat.org*

Production Coordinators/Graphic Designers
Melissa Muko: *melissa@amstat.org*
Kathryn Wright: *kathryn@amstat.org*

Publications Coordinator
Val Snider: *val@amstat.org*

Advertising Manager
Claudine Donovan: *claudine@amstat.org*

Contributing Staff Members
Amy Farris • Keith Crank • Monica Clark • Rebecca Nichols

Amstat News welcomes news items and letters from readers on matters of interest to the association and the profession. Address correspondence to Managing Editor, *Amstat News,* American Statistical Association, 732 North Washington Street, Alexandria VA 22314-1943 USA, or email *amstat@amstat.org*. Items must be received by the first day of the preceding month to ensure appearance in the next issue (for example, June 1 for the July issue). Material can be sent as a Microsoft Word document, PDF, or within an email. Articles will be edited for space. Accompanying artwork will be accepted in graphics file formats only (.jpg, etc.), minimum 300 dpi. No material in WordPerfect will be accepted.

Amstat News (ISSN 0163-9617) is published monthly by the American Statistical Association, 732 North Washington Street, Alexandria VA 22314-1943 USA. **Periodicals postage paid** at Alexandria, Virginia, and additional mailing offices. POSTMASTER: Send address changes to *Amstat News,* 732 North Washington Street, Alexandria VA 22314-1943 USA. Send Canadian address changes to Station A, P.O. Box 54, Windsor ON N9A 6J5; *returnsIL@imex.pb.com*. Annual subscriptions are $50 per year for nonmembers. *Amstat News* is the member publication of the ASA. For annual membership rates, see *www.amstat.org/join* or contact ASA Member Services at (888) 231-3473.

American Statistical Association
732 North Washington Street
Alexandria, VA 22314–1943 USA
(703) 684–1221 • FAX: (703) 684-2036

ASA GENERAL: *asainfo@amstat.org*
ADDRESS CHANGES: *addresschange@amstat.org*
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To be a world leader in promoting statistical practice, applications, and research; publishing statistical journals; improving statistical education; and advancing the statistics profession

MISSION STATEMENT

Support excellence in statistical practice, research, journals, and meetings. Work for the improvement of statistical education at all levels. Promote the proper application of statistics. Anticipate and meet the needs of our members. Use our discipline to enhance human welfare. Seek opportunities to advance the statistics profession.

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Science Policy News

Measurement in Economics **p. 39**

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

Contributing Editors

Kennickell

Arthur Kennickell is the chief of microeconomic surveys at the Board of Governors of the Federal Reserve System. He is an ASA Fellow and past winner of the Julius Shiskin Award.

Lane

Julia Lane is the program director of the Science of Science and Innovation Policy program at the National Science Foundation, a program that addresses gaps in science policy. Lane previously served as senior vice president and director of the economics department at NORC.

QUOTABLE

"The comfort of my cigarettes outweighs the 16% increase in risk."

William Cochran at the age of 55, after calculating his chances of getting lung cancer as 40% compared with 24% for a former smoker.

http://news.harvard.edu/gazette/tag/william-cochran

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MEMBER NEWS

cover design by Melissa Muko

Happy New Year!

Sastry Pantula

It is Thanksgiving Day as I write this column, though by the time you read it, it will be the beginning of a very happy new year. I wish you all a peaceful, healthy, and prosperous year, and I look forward to working with you to make our association thrive.

Let me begin with my thanks. I am honored and humbled by all of you who put your trust in me to be the 105th president of one of the oldest, largest, and best associations in the country. I am proud of our members, who are making excellent contributions all around the globe. It gives me a boost of energy to see the enthusiasm of our members, and it has been beneficial for me to listen to so many of our members at various professional, committee, chapter, and section meetings. Our association thrives because of its members from all sectors (academia, government, business, and industry) and their diverse professional and personal backgrounds. More importantly, all of us see the ASA as a home for cross-sector professional relationships and for developing initiatives that benefit all our members, however isolated or much of a minority some may be. Thank you very much for your confidence in me and your support of me, the ASA, and others in our profession.

During my year as president-elect, I contacted a number of you to be on various committees. I thank you for your enthusiastic willingness to volunteer for the ASA. You have helped me greatly in diversifying our committees, and I look forward to working with you. Also, I have been fortunate to learn from some of our past presidents (Robert Mason, Brad Efron, Fritz Scheuren, Sallie Keller-McNulty, Mary Ellen Bock, Tony Lachenbruch, and Sally Morton) and many excellent board members. These are definitely hard acts to follow. Their mentoring and support are much appreciated.

I also look forward to working with the new and continuing ASA Board members. I appreciate the support and patience of my department and family as I juggle my time and duties. Finally, I enjoy reading the staff profiles in *Amstat News*. It has been wonderful to get to know the staff members, who are the backbone of the services and benefits we all enjoy. Thank you for your work behind the scenes.

This is an excellent time to be a statistician. During the past year, we have been seen as belonging to the "sexiest" profession and as having one of the least stressful careers in the world. We have advocated for statistical literacy and research funding on Capitol Hill. We are having healthy discussions about AP statistics, and a similar discussion is happening in the mathematical sciences. I agree with Solomon Friedberg, who said, "We need to create a culture of achievement in the mathematical sciences in this country." (See also *www.boston.com/bostonglobe/editorial_opinion/oped/articles/2009/05/21/the_crisis_in_math_science*.)

Statisticians are making significant contributions to advance science, helping businesses succeed through analytics, and helping the government set policies based on data and evidence. The National Institute of Statistical Sciences (NISS)—through its industry, government, and academic (NISS/SAMSI) affiliates—also is bringing together statisticians from various sectors to incubate new ideas and tackle important problems. It is exciting to see NISS expand its building to accommodate the growing program needs of SAMSI. I am glad the ASA is one of the 10 owners of NISS and that NISS is one of SAMSI's partners.

ASA members are in the news regularly (see *www.amstat.org/about/statisticiansinthenews.cfm*) and are correctly being viewed as positive contributors to innovation. I urge you to share such news with your

students, colleagues, friends, and neighbors. Under the leadership of Iain Johnstone, the Accreditation Implementation Committee is developing the mechanics of a voluntary accreditation program that will benefit some of our current members, attract future members, and bring more visibility to our profession. The ASA Board—along with committee, chapter, and section members—continuously discusses items that will benefit our association and profession. We are taking a chance on many significant endeavors that benefit members and will have a great effect in the long run.

Morton, through the working groups she formed, and the ASA Board had a considerable amount of success advancing some of the initiatives in the ASA's strategic plan (see *www.amstat.org/about/strategicplan.cfm*). Her initiatives on meetings, financial status, organizational efficiency, and publications will continue to make progress this year. As I mentioned in my election statement, my goal is to focus on the remaining bullets in the strategic plan: membership growth, public awareness, visibility and impact, and education. Four working groups—chaired by Jeri Mulrow, Executive Director Ron Wasserstein, Morton, and Jessica Utts—are addressing these initiatives already. Working groups include prominent members and members from relevant committees, sections, groups, and the ASA Board.

Membership growth—through retention of existing members, recruitment of new members, and re-enrolling lapsed members—is important to the ASA. Our goal is to make sure we are offering appropriate benefits to our current members and potential new members (some of whom could be lapsed members). Mulrow and her working group are making use of historical data and various committee reports to bring action items to the board.

I truly believe statistics is key to innovation and that we need to get that message out to everyone. As one of the largest associations in the country, we want the public to be aware of all the good things we do. Public awareness starts in our neighborhoods and continues on to leaders in all sectors. Wasserstein, Rosanne Desmone—the ASA's public relations specialist—and other members of the working group are considering a tagline for the ASA and generating ideas for a public awareness campaign.

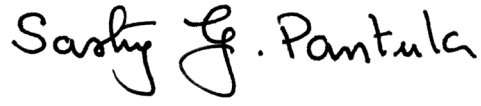
Morton, with adrenalin from her JSM 2009 speech, is leading the working group on visibility and impact in policymaking. With ASA Director of Science Policy Steve Pierson, members from relevant committees, and members at large, she has a good working group. I look forward to guidelines for releasing position statements in a timely fashion about important topics.

Finally, the ASA is an organization that brings all sectors—academia, government, business, and industry—together to educate and train future problemsolvers. The education working group, chaired by Utts and including members from all sectors, is looking at a process to improve curricula at various levels.

Please email me at *pantula@ncsu.edu* with suggestions or comments about these initiatives or the ASA in general. I plan to keep you informed about the progress of these initiatives and other relevant topics in my future columns.

I am excited about the ASA and what we can accomplish together this year. Abstracts for JSM 2010 are due February 1. I look forward to seeing all of you in beautiful Vancouver in August—if not before. Please remember to get your passports ready. Thanks to Xuming He, JSM 2010 Program Committee chair, and his excellent team of section program chairs and others for putting together a great collection of invited sessions to go with JSM's theme, "Statistics: A Key to Success in a Data-Centric World."

Thank you again for this opportunity to serve you and our association.



AP Statistics: Passion, Paradox, and Pressure

(PART II)

Xiao-Li Meng

Practice What We Preach

RPFHS concluded by citing ASA/CB, which appears to be the most comprehensive study of AP statistics so far. I greatly applaud this much needed effort by ASA/CB, and appreciate its careful discussions of various limitations and difficulties. I also particularly appreciate the various steps taken during the study to reduce biases, especially the non-response bias, and its call for further studies in order to make causal inferences about the impact of the AP statistics. Real-life causal assessment/inference is never easy, especially for a large and complex program such as AP statistics. And the closer a study is to real life, the easier it is for us academics to criticize, especially for those of us who never get our hands "dirty" with real data, something I have been learning as my hands have been getting increasingly dirty. I therefore want to preface my discussion of ASA/CB study with a grand disclaimer: the discussion is not intended as criticism of any sort for any individual involved in the study nor the study as a whole. Rather, the sole purpose here is to put its findings into perspective based on the evidence provided by the report itself, to further caution ourselves to not put more faith in the findings than the quality of the data can possibly support.

As explicitly acknowledged as a serious sampling bias, due to the lack of contact information, the ASA/BC survey population was those who took the AP Statistics Examination, not those who have taken AP statistics classes. Furthermore, as given in the Appendix of ASA/BC's full report, the response rates varied from 9.3% to 23.7% across all subpopulations examined, and there is strong evidence of non-ignorable non-response mechanism. For example, among the five exam grades, the response rates went from 9.3% for the lowest Grade 1 to 22.9% for the highest Grade 5, essentially in a monotone fashion. Indeed, ASA/BC reported that the results from adjusting non-response using the demographic and exam performance data "differ substantially" from the unadjusted ones, and "the unadjusted approach overestimates the proportion of students who indicated a greatly or somewhat increased interests in statistics as a response to the AP Statistics course, and underestimates the proportion of students whose interests greatly or somewhat decreased." This finding is consistent with our intuition that those who did well on the exam are more likely to be those who have positive experiences with AP classes, just as our intuition would suggest that those who took the course but did not take the exam are more likely to have had more negative experiences with their AP statistics courses than those who took both the courses and the exam.

Whereas ASA/BC correctly emphasized the need to adjust for the non-response bias, it can only do so for the non-responses biases that can be explained by the covariates measured. Therefore, the ASA/BC's recommendation that "Because of the corrections above, it is appropriate to consider these results as representative of the entire population of approximately 230,000 examines" is based on a yet-to-be-tested assumption that the non-response mechanism can be adequately captured by the covariates measured (the reported ones are year of exam, exam grade, gender, and six regions defined by the College Board). As we all know, the wonder of

Editor's Note: Due to space limitations, Part 1 appeared in the December issue of *Amstat News*. The full piece, however, is available now at *www.amstat.org/publications/amsn/2009/december.cfm.*

statistics is that we can infer quite reliably the opinions of a population of hundreds of millions based on a sample of a few thousands or even few hundreds, if the sample is a probabilistic one without any serious self-selection mechanism in play. In contrast, inferences of a population of 230,000 based on a highly self-selected 408 respondents (the actual sample size of the ASA/CB study) are not something that most (any?) professional statisticians would be willing to vouch for without carefully laying out all the heavy assumptions.

As a matter of fact, even if by luck our inferences for the 230,000 population are dead on, they still provide little information about how many have been so turned off by poorly taught AP classes that they decided not to take the AP exam or touch statistics ever again.

Most critically, thinking from the causal inference perspective, even with 100% response from everyone who ever took AP Stat classes, we still need to work hard to construct an appropriate "control group", perhaps via propensity score matching, in order to come close to assessing the real impact of AP statistics. Again, ASA/BC correctly acknowledged, repeatedly, that this lack of comparison/control groups makes it "difficult to make comparisons and impossible to draw causal inferences."

There is of course nothing special about AP statistics in this regard; the same caution and rigor should be exercised when evaluating other AP programs, and indeed any other educational program. However, in responding to my point that it is our professional responsibility to serve as a (not "the") police of science (Meng, 2009), one reader wrote to me that we should self-police, namely to critically examine how we statisticians invoke statistical evidence and arguments in our own work before we police others. I, of course, completely agree: only when we practice what we preach can we convince others to take our advice seriously. But most critically, even if we don't care about how sound our arguments are or how others think of us, this is a case where we really want to know how effective the AP program is in real terms for the sake of our own future. I therefore very much appreciate the many cautions taken by ASA/CB in presenting its findings. Indeed, the full report as posted on the College Board web site suggests that the overall conclusion of the study is substantially more cautious than the impression the quotes in RPFHS might generate.

As a matter of fact, the abstract of the ASA/CB full report reads

> "*Taking the AP Statistics course and exam does not appear to be related to greater interest in the statistical sciences.* Despite this finding, with respect to deciding whether to take further statistics course work and majoring in statistics, students appear to feel prepared for, but not interested in, further study. There is certainly more research needed in order to make causal inferences about the issues presented in this analysis. However, it should serve as encouragement for both AP Statistics and college statistics instructors and the broader statistical community that the AP Statistics program seems to be successful in preparing students for further study and in increasing interest in statistics."

(The abstracted was dated 2/28/2009, the same month the full report was issued as Patterson, 2009; and it was downloaded on Oct. 31, 2009 from *http://professionals.collegeboard.com/data-reports-research/cb/ap-statistics-education-choices.*)

In its "Conclusion" section, which was reproduced in the *Amstat News* (May, 2009), the entire paragraph was kept except that the word "not" was removed from the first sentence, and a more qualified "not" message was appended at the very end of the above paragraph: *"It may not, however, affect students' choice to pursue statistics as a major."*

This contradiction between the abstract and the conclusion could simply be an oversight or could reflect a compromise perhaps between different versions/revisions to prevent misquotations of the study.[1] From a critical self-policing perspective, adding "not" or not brings to mind the quote by Mark Twain, which was allegedly switched from "Some congressmen are …" to "Some congressmen are not …"—the limitations of the sample are just too great to draw any statistically sound general conclusions in either direction. I therefore fully agree with ASA/CB's emphasis that "There is certainly more research needed in order to make causal inferences about the issues presented in this analysis."

The Great Pressure We Are Under: Deliver Quantity And Quality

The research needed is not just about determining the quality of the existing AP program, but more critically to identify, insofar as possible, the mechanisms that have led to local "good, bad and ugly" implementations of an obviously very well intended program. Such research can help our profession make informed plans as how to improve or even reform it in order to achieve our dual goals to build and sustain a strong workforce for our profession's future and to continuously raise statistical literacy in general. We are no longer in a stage where our central goal is merely to convince the general public, at least the scientific ones, of the importance of statistics. We are now very much desired, or even

[1] There is indeed at least one obvious discrepancy or typographical error in the full report; the text mentioned several times that response rate is higher for female, whereas the appendix listed that male's response rate is 23.7% and the female's rate is 15.0%

feared, as I argued in Meng (2009). We now need to *deliver*, not just in terms of quantity but more importantly quality. I put more emphasis on quality, because as we are all aware, without good quality, a product will not last for long even if it is highly demanded at some point.

A local painful experience which occurred when I became department chair reminds me well of the importance of not forgetting quality when quantity is being demanded. In 2004-2005, we had an unexpected increase of enrollment by about 85 students in our most basic introductory course, Stat 100. Therefore, literally at the last minute, we needed to find additional teaching fellows (TF) to staff 5 more sections, as Harvard's policies require one TF section for every 17-20 students. We delivered the quantity, by hiring anyone who "could breathe and count"—a sarcastic phrase that sadly was not too far from the reality. The result amounted to "a mini crisis": students complained, faculty complained, and even those TFs themselves complained because they were under pressure to do a job they clearly were not qualified for, nor were they given any training.

Given the grand challenges we are facing, as listed and discussed in detail in a number of very recent articles (e.g., Brown and Kass, 2009; Meng, 2009), it would not be pure speculation to suppose that our profession would be facing similar "mini crises" or even big ones if we only focus on quantity. Of course, this is a well recognized issue by many. For example, much effort by ASA's education department, such as the "Meeting within a Meeting" at JSMs and the STEW site (all available at *http://www.amstat.org/education/*) is about improving the statistical education quality at all levels. My emphasis here is that in an assessment of a national program such as AP statistics, assessing its quality is as important, if not more so, than assessing its quantitative aspects.

The real pressure here, as in many other situations when the demand exceeds the supply, is maintaining both high quality and high quantity, or even just adequate quality and adequate quantity. And for educational endeavors, there is also often a cascade effect. As my colleague, Joe Blitzstein (the "Youtube" sensation mentioned in my op-ed), commented on an early version of this article:

> "I hope such surveys would be done in such a way as to give as much information as possible that would be useful in deciding how to reform AP Stat, not just to accurately estimate the causal effect. A major difficulty is that the more "interesting" AP Stat becomes (based on thinking/ideas rather than cookbook-style mechanics), the more difficult it becomes to find qualified teachers."

Indeed, without enough qualified teachers, even the best designed curriculum and most well intended program can do more harm than help.

Joe is exactly right that in order to deal with this pressure, our most urgent task in terms of assessment is to learn as much as possible about the mechanisms that have led to "turn on" and "turn off" and, hence, we can be strategic with the limited resources we have. This key point is also emphasized by Kari Lock, a member of my "happy team," in her comments to me:

> "If we know WHAT turns people on or off, then we can keep the aspects that are turning people on and turn our efforts to fixing the aspects that are turning people off. I think that a well-conducted study about AP statistics could be very powerful and very beneficial to our profession, but I think there might be more to gain from learning how we can increase P_{ON} and decrease P_{OFF} rather than getting accurate current estimates of P_{ON} and P_{OFF}."

We perhaps all have our educated guesses about, or even direct experiences of, what may or may not work. Surely the curriculums and teacher's quality matter greatly, as does competition from other fields —we are not the only profession on the expanding horizon. (As discussed in Meng (2009), ironically, the rapid rising and evolution of other disciplines, such as life sciences, creates both demand of and competition for us.) And we may even know, at our local levels, which of those mechanisms are likely to be the dominating force.

However at the national level, I'd venture that currently we do not have a good understanding of the interplay of various factors. Many deep questions can and should be asked even if we yet need to estimate P_{ON} and P_{OFF}, at the national level. Here are a few that immediately come to mind.

- What kind of students are more likely being turned on or turned off? What kind of students are unlikely to be affected by the quality of the AP program?

- Are students turned on or off more because of course materials or because of their delivery? Or must it be the interaction of the two to have a strong effect, in either direction?

- For those "turn-off" courses, is the problem more due to teachers' lack of teaching skill, lack of statistical knowledge, lack of experiences of statistics practice, or lack of enthusiasm they themselves have because of their own bad learning experiences? Or must it be a combination of two or more before driving students away?

- How widely spread is the notion that AP stat is a "softer alternative" to AP math? Is this largely due to the common perception that statistics is an "easy" branch of mathematics, or due to the effectiveness of the AP math program to attract top students, or due to students' or even school administrations' perceptions of who is getting to teach math courses and who is teaching stat courses?

- To what extent has the AP exam itself encouraged teaching for test-taking rather than for understanding and inspiring interest? In view of the rapid re-shaping of statistics by the scientific evolution, in what ways should we revise or even revamp the AP exam and curriculum in order to inspire and reflect students' interests?

I am sure that none of these questions are new, and that the authors of RPFHS and readers have many more questions. As an example, here is an excellent and tough question from Joe Blitzstein, again in his comments to me:

> "Somewhere you might mention explicitly what I consider one of the most fundamental downsides, and the statistical difficulties of measuring it. That is what economists would call the *opportunity cost* of taking AP Stat, the alternative that the AP stat students would have otherwise taken. In high school, they would probably take another math course (AP Calculus or at least precalculus) in place of AP Stat. Having more math may actually help the students in their later stat courses (if any). In college, many students who took AP Stat think they already know enough stat (so don't take any more), whereas they might have gotten a much better intro to stat from the college course (this depends on how likely an AP Stat course is to be well-taught compared with a college intro course)."

Indeed, the ASA/CB study reported that having taken the AP stat course is a relatively important reason for the respondents not to take any college-level course in statistics. Therefore, in order to address Joe's question and more generally the overall impact of AP statistics, we need to also examine the quality of statistical education at the college level, where the great shortage of qualified teachers is also a well-known problem, as discussed above. As a matter of fact, one may well question to what extent the "turn-off' phenomenon exists at the college level, and whether it is in any sense better than at the AP level.

Evidently, questions like those listed above are often very hard to answer, and some perhaps are never answerable completely. Minimally, it will take significant human and other resources to conduct studies to address these questions. But I'd argue that the stakes are simply too high, especially considering how many other fields are competing intensely for future talent, for us not to give our "first gateway" to future statisticians the highest priority. I therefore urge ASA to assemble the best teams our profession can offer to conduct studies of the AP program regarding its current impact and future directions and improvement, building upon the ASA/BC study. The plural "studies" is intended to point out that what is needed here is not just a single assessment study, but rather an on-going process to keep ourselves on our toes, to identify feasible ways for improvements, both short term and long term, and to ultimately offer a continuously renovated platform for "gateway" statistical education at a national level. The overall success of the AP program would be undoubtedly an effective arsenal in releasing the great pressure our profession is under, that is, to provide both high quantity and high quality future statisticians. We certainly face a great challenge here, but with challenges often come advances. My colleagues and I are well reminded of this by the fact that our current success as a model department at Harvard started from the aforementioned "mini crisis."

An Invitation to Join a Self-Policing Unit

I, of course, need to volunteer myself for the effort I am arguing for—asking questions is important but often is not as important as answering them. The aforementioned studies obviously need to be conducted by those who have been at the forefront of the AP program and who have intimate knowledge of its history, operation, and complexity, such as the authors of RPFHS. My knowledge of AP statistics, documented in this article, is enough for me to raise questions as an interested "outsider", but negligible for what is needed to conduct serious studies. However, I am hoping to turn my lack of knowledge or involvement into what perhaps is best depicted

by the Chinese proverb "spectators may see more of a game than players." When such studies are in place, I would like to invite a few statisticians to join me in forming a "self-policing unit" to provide an independent check of, and critical comments on, their design, analysis, and conclusions.

Sometimes when we statisticians carry out our "police duty", we are ridiculed as being only interested in covering our own necks (or lower). But in the case of assessing AP statistics, it is not our necks but rather our entire profession's future well-being at stake. No study of this sort can possibly be perfect, and it is anti-scientific to be overly cautious when facing such imperfections. At the same time, we can be confident that we are exercising the right level of cautiousness only when we hold ourselves to the highest possible standard given the practical constraints. Surely inferences always come with unavoidable uncertainties, but they should be free of avoidable mistakes, with or without passion, paradox, or pressure.

Let me conclude by thanking again the authors of RPFHS for their great inspiration. We definitely have a giant elephant in the room, to borrow a common idiom, but with a connotation echoing the "four blind men and an elephant" story: we need collective wisdom and joint effort, much more than just comparing and contrasting our individual findings. We need to understand the elephant as a whole, and, metaphorically speaking, we need to move it outside the room to help to carry the heavy load and responsibility on our shoulders, as our profession becomes increasingly desired (and feared), in reality and in perception. How many of us had expected, just a year ago, that "For Today's Graduate, Just One Word: Statistics" would be an actual headline in *NY Times* (Aug 6, 2009)? ■

Acknowledgements: I thank Alan Agresti, Joe Blitzstein, Thomas Lee and Kari Lock for their very helpful comments. All "mis-takes of passions" are of course mine.

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The Role of Statistics in Reforming U.S. Foreign Assistance Policy

Jana Asher, Executive Director of StatAid, and Michael Kisielewski, Senior Research Specialist at StatAid

The ancient Chinese proverb, "May you live in interesting times," usually is thought of as a curse. But in terms of U.S. domestic and foreign policy—and, specifically, the potential of the statistics community to have a positive impact on that policy—we believe living in interesting times presents a great deal of opportunity. As President Barack Obama finishes his first year in office, the state of the economy, climate change, health care reform, and the continuing war in Afghanistan all vie for center stage in U.S. politics, and statistics has something to contribute to each of those issues. However, there is an issue that is not as prominent, but just as important, that deserves the attention of the statistical community: the need for reformation of U.S. policy and protocol concerning foreign assistance.

Foreign assistance is financial or material aid provided by one country to another, without expectation of compensation or reimbursement. The United States first provided massive foreign assistance following passage of the Foreign Assistance Act of 1948 (i.e., the Marshall Plan), which provided more than $12 billion toward economic recovery in Western Europe after World War II. Although several other congressional acts related to foreign assistance were passed since then, today's model for U.S. foreign assistance is based on the 1961 Foreign Assistance Act, which paved the way for the creation of the United States Agency for International Development (USAID).

The problem is that although the world has changed dramatically since 1961, the Foreign Assistance Act has not. It has been subject to a series of amendments over time, but the result has been a convoluted piece of legislation that has led to foreign aid programs operating under overly burdensome procedural requirements—and being housed across 25 federal agencies.

In that context, a coalition of foreign assistance and global development experts—the Modernizing Foreign Assistance Network (MFAN)—developed a proposal for reforming U.S. foreign aid policy. Released June 1, 2008, and titled "New Day New Way: Foreign Assistance for the 21st Century," it called for a new foreign assistance act and the streamlining of foreign assistance through a cabinet-level Department for Global Development. Most importantly to statisticians, it called for strengthening monitoring and evaluation (M&E) procedures and greater accountability in the provision of foreign assistance.

In response, both the Senate and House of Representatives began to work on bills that would revitalize foreign aid policy. On April 28, Rep. Howard Berman of California and Rep. Mark Kirk of Illinois introduced the Initiating Foreign Assistance Reform Act of 2009 (H.R. 2139) to the House Foreign Affairs Committee. The bill, which has met with the approval of MFAN, authorizes the development by the president of a new national strategy on global development, requires greater transparency for all U.S. foreign assistance programs, and calls for the creation of a system for monitoring and evaluating development programs and aid.

Exactly three months after H.R. 2139 was introduced, Sen. John Kerry of Massachusetts introduced the Foreign Assistance Revitalization and Accountability Act of 2009 (S. 1524) to the Senate Committee on Foreign Relations. The Senate bill amends the existing Foreign Assistance Act of 1961 by calling for increased transparency of foreign assistance programs and new staff positions at USAID to develop and coordinate policy, strategic planning, and evaluation of program effectiveness. Specifically, within Section 624B, it calls for integrating "monitoring and evaluation into overall decisionmaking and strategic planning."

Support from both major political parties is growing for both bills. On November 17, 2009, the Senate Foreign Relations Committee approved S. 1524; the bill currently has 18 cosponsors. Although H.R. 2139 has not yet been voted on by the House Foreign Affairs Committee, it had 121 cosponsors as of late November.

The executive branch also has expressed interest in foreign aid reform. On July 10, 2009, Secretary of State Hillary Clinton announced a quadrennial

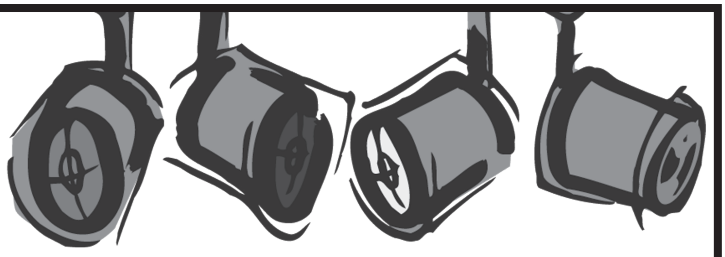
diplomacy and development review—a review of current U.S diplomatic and development practices and the creation of a blueprint for future diplomatic and development efforts. Clinton's announcement was followed on August 31, 2009, by Obama's signing of a presidential study directive that calls for a review of U.S. global development policy.

With all the bipartisan support for reform of foreign assistance policy—and specifically of better monitoring and evaluation of programs supported by foreign aid—the need for the input of the statistical community might not be readily apparent. But USAID has long operated without in-house technical expertise on monitoring and evaluation, and administrators of aid projects are often reluctant to set aside funds for evaluation purposes that could be used for direct aid. The gold standard for evaluation—a randomized design—is hard to sell to project directors who wish to see aid go to the most needy and don't understand the need for randomization of treatment groups. Those project administrators who are open to good monitoring and evaluation techniques might find that local statistical capacity is too sparse to allow for proper M&E. And although there has been steady development of M&E techniques over the past few decades, more research is needed on best practices for monitoring and evaluation within the difficult contexts present in the Global South and transitional countries.

There are many ways—big and small—that the statistical community already has contributed to the debate on foreign aid policy reform. Proponents of stronger monitoring and evaluation for development aid programs have organized sessions on that topic at the Joint Statistical Meetings and have written scholarly articles about the subject. The ASA volunteer group Statistics Without Borders has produced reviews of monitoring and evaluation plans proposed for USAID-funded food assistance programs. Other statisticians have operated more independently, lending their expertise to members of the development assistance community who have requested their help.

As the debate continues, we propose that the statistical community as a whole—and the American Statistical Association specifically—take a more active role. The House Committee on Foreign Affairs has openly requested input as it continues to discuss H.R. 2139, and the American Statistical Association could issue a position statement to them on how better monitoring and evaluation practices could be implemented. Volunteers—independently or through Statistics Without Borders and/or the ASA Special Interest Group on Statistical Volunteerism—can continue to work with development aid agencies and their contractors to support monitoring and evaluation efforts. And statisticians can voice their support of S. 1524 and/or H.R. 2139 to their own representatives and senators over the coming months.

We do live in interesting times, and the potential for constructive change in U.S. foreign assistance policy is great. The statistical community has much to contribute to such change. Will you join us? If you are interested in doing more to work toward reform of U.S. foreign assistance (e.g., writing to your legislators in support of new foreign aid policy) or would just like more information about the topics covered here, please email Jana Asher at *asher@stataid.org* with the subject line "Development Aid." If you would like to learn more about Statistics Without Borders or the Special Interest Group on Statistical Volunteerism, contact Gary Shapiro at *g.shapiro4@verizon.net*. ■



Member Spotlights WANTED

The managing editor of *Amstat News* is searching for ASA members who are willing to put themselves in the spotlight and write a brief article about their life, to be published in an upcoming issue.

The article should be 1,000 or fewer words and contain professional and personal information. Please include a photo or two of yourself and email it to *Amstat News* Managing Editor Megan Murphy at *megan@amstat.org*.

Dear Editor,

In my ongoing search to find real data that I can use in my teaching and textbook writing, I have spent literally thousands of hours over the last few years perusing professional journals. Most articles that include the results of a statistical analysis report only summary quantities. Since virtually all journals now include the email address for a corresponding author, I have recently been writing to those authors to request selected data. The results have been pretty discouraging. In the month-long period from October 20 to November 20, I sent about 25 messages. As of the time I composed this letter, I had heard back from only a handful of people, and no one has yet provided data. Here are [some] of the responses I received:

"I'm sorry, but I will need to hear an appropriate justification for your request. I will have to review the data files to look for what you want. It will take some work so I think that it is not unreasonable for me to request that if I'm going to have to do a fair amount of work, I would like to know why you think I need to do this." (N.B.: I did explain in my initial communication why I wanted the data.)

"I have gone back and looked to see if we are able to release raw data. Unfortunately, the industry-sponsors for the program are really hesitant to release raw data on part reliability."

"I'm at the end of my dissertation and I am working nonstop. Don't have time."

"I am flattered that you would like to use our data. However, I no longer have the actual data in my possession so, unfortunately, I can't send it along." (N.B.: The paper appeared in 2008.)

"The ethics committee protocols do not allow me to forward any raw data to anyone, even if it is anon[ymous]. This is a growing trend in the UK at least, anyway."

"Unfortunately, I am currently unable to access the data due to the version of SPSS I am currently using (versus the version the data is originally stored on)."

I'm not sure whether my difficulties in obtaining requested data can be attributed to my not being in the same discipline as the contact people, or whether they are worried that I might question their analyses (Indeed, I have found some significant errors in analyses once the data were available.), or whether there is some other explanation. But it seems entirely reasonable to me that the authors of an article to be published in a nonproprietary journal have an obligation to make their data available to anyone requesting it. I wonder if the American Statistical Association might undertake a campaign to make this a reality. Perhaps journals could be strongly encouraged not to publish an article until the authors have provided all the data, which could then be placed in some sort of data repository, accessible to a wider audience. Perhaps other ASA members have ideas about this issue and will share them with the statistical community.

Jay Devore
Professor, Department of Statistics,
Cal Poly State University, San Luis Obispo

Highlights of the December 2009 Board of Directors Meeting

Sally Morton wound down her term as ASA president by leading the board through intense discussion of important topics during the board's December 4–5, 2009, meeting at the ASA office in Alexandria, Virginia. The board was joined by some of the new board members as part of the annual board orientation process. Here are the highlights:

—The board appointed Sandip Sinharay and Matthew Johnson editors of the *Journal of Educational and Behavioral Statistics (JEBS*) for 2011–2013, subject to similar approval by the American Educational Research Association, with which the ASA partners in production of this journal.

—Lisa LaVange was reappointed editor of the ASA-SIAM book series, for the period 2011–2013.

—The board approved the changes to the ASA bylaws considered during its meeting at JSM and presented to the membership through *Amstat News* in September. The changes realign the ASA's committee structure to make it more efficient and effective.

—The board approved a new agreement with the International Biometric Society (IBS) on the publication of the *Journal of Agricultural, Biological, and Environmental Statistics (JABES)*. The ASA and IBS will continue to share editorial responsibility for the journal, but business operations will transfer from the ASA to IBS this year.

—The board approved a publishing partnership with Taylor & Francis on the *Journal of Nonparametric Statistics (JNPS)*. The ASA will assume editorial control of this journal, appointing future editors. As part of this action, the board approved continuing the appointment of Suojin Wang as *JNPS* editor.

—The board heard a report from Bill Seltzer, chair of a working group asked to address statistical methodologies used in program evaluations related to international development activities. ASA leadership will communicate with appropriate government officials based on Seltzer's report.

—Tim Keyes, chair of the Membership Surveys Committee, presented preliminary results of the recently completed meetings survey. Further analysis of these useful findings will be completed and shared with the board and membership.

—The board conducted its first annual review of the effectiveness of the ASA's strategic plan implementation. The board found that several concrete results already had occurred from the adoption and implementation of the plan and

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Ron Wasserstein, Executive Director

that progress continues on other aspects. Annual review of the plan will help maintain its freshness, vitality, and relevance.

—Related to the point above, the board heard progress reports from the four working groups appointed by President Sastry Pantula to address strategic issues.

—One of these four, the Public Awareness Workgroup, had a brainstorming discussion with the board related to the ASA's fundamental purposes and activities and what makes the association unique. This working group is developing a comprehensive public awareness plan for the association.

—The ASA's auditing firm made a presentation to the board. This presentation, "Understanding Basic Nonprofit Financial Statements," provided board members with principles for reviewing the ASA's finances, which were illustrated using the ASA's most recent audited statements.

—The largest portion of the board's time was spent in discussion of the future of outreach magazines, in particular *CHANCE* (published by the ASA in partnership with Springer) and *Significance* (published by the Royal Statistical Society (RSS) with Wiley-Blackwell). *CHANCE* editor, Mike Larsen, presented ideas about moving the magazine to online only. ASA Executive Director Ron Wasserstein discussed a framework for a partnership with the RSS by which *Significance* would become a joint publication of the two societies, with the magazine provided to members as a benefit of membership. A great many issues were considered and concerns addressed, after which the board gave the executive committee and staff authority to further negotiate with the RSS regarding the potential partnership and to work with Larsen on the details—including a business plan—for moving *CHANCE* online.

—The board heard farewell remarks from outgoing board members Tony Lachenbruch, Alicia Carriquiry, Tom Santner, and John Boyer.

The board meets again in April for its initial meeting of 2010. ■

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Salary Survey of Biostatistics and Other Biomedical Statistics Departments

Below are results from the fall 2009 Salary Survey of Biostatistics and Other Biomedical Statistics Departments and Units conducted by the ASA. All salary figures are for a 12-month period. As in the past, previous salary survey data have been included for comparative purposes. The estimates are based on responses from 30 departments, plus a few individuals who responded to the survey. Questions regarding the tabulations should be addressed to Keith Crank, ASA research and graduate education manager, at *keith@amstat.org*. If you would like your biostatistical unit to participate in future surveys, also contact Crank.

Table 1—2009–2010 Salaries of Biostatistics Faculty with Previous Years for Comparison

Rank/Year in Rank	Percentile	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
		Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size	Sample Size
Assistant 1–3	25th	$70,020	$73,345	$79,560	$82,400	$86,000	$89,200	$89,900
	50th	78,309	78,640	83,000	85,000	88,452	93,600	93,500
	75th	82,017	84,505	88,000	90,000	92,869	98,300	99,900
		(71)	(76)	(149)	(112)	(106)	(69)	(82)
4 or more	25th	$73,217	$78,611	$81,588	$84,476	$87,400	$90,500	$89,900
	50th	79,692	83,408	87,000	88,471	92,000	95,500	96,800
	75th	83,796	87,018	94,039	94,819	98,220	106,200	102,100
		(30)	(48)	(55)	(48)	(65)	(62)	(87)
Associate 0–2	25th	$86,415	$92,000	$94,255	$89,937	$102,525	$102,500	$102,400
	50th	94,000	96,056	100,215	100,441	110,493	110,800	114,000
	75th	99,412	99,759	103,378	113,000	118,900	127,000	130,000
		(23)	(35)	(40)	(46)	(50)	(36)	(62)
3 or more	25th	$84,670	$88,142	$95,634	$101,384	$105,000	$109,300	$108,100
	50th	98,219	97,000	103,334	107,981	109,350	118,000	116,800
	75th	105,951	107,313	117,747	120,000	124,924	130,000	130,800
		(48)	(47)	(53)	(65)	(66)	(69)	(69)
Full 0–6	25th	$110,000	$115,000	$122,095	$127,893	$137,991	$130,200	$127,100
	50th	125,000	130,500	147,988	147,488	163,870	145,200	152,300
	75th	150,000	156,000	172,664	177,840	180,365	174,600	184,100
		(41)	(46)	(47)	(54)	(60)	(65)	(84)
7 or more	25th	$120,925	$126,931	$127,630	$139,959	$147,575	$156,200	$146,200
	50th	145,712	148,000	151,410	172,523	180,760	187,000	178,900
	75th	166,413	164,459	171,303	197,277	209,147	215,500	203,300
		(72)	(72)	(87)	(84)	(71)	(77)	(92)
Starting Assistant Professors	25th	$70,000	$72,100	$81,600	$77,500	$84,000	$87,500	$105,500
	50th	75,000	79,342	84,000	82,400	85,000	91,500	112,500
	75th	80,000	83,000	95,833	85,279	93,150	98,500	143,300
		(21)	(34)	(22)	(27)	(13)	(09)	(12)

Beginning with the 2009 survey, gender data were collected along with the salary information. Table 2 provides quartiles for the groups in Table 1, separated by gender. (Note: There were insufficient data to separate starting assistant professors by gender. Also, the counts in Table 2 are smaller than the corresponding counts in Table 1, because some respondents did not provide gender information.)

In 2009, we continued to collect data on non-faculty academic statisticians and biostatisticians.

Table 2—2009–2010 Salaries of Biostatistics Faculty, by Gender

Title	Years in Rank	Gender	Count	1st Quartile	Median	3rd Quartile
Assistant Professor	1–3	Male	41	$90,000	$93,500	$95,900
	1–3	Female	36	$87,500	$92,800	$99,600
	4 or more	Male	53	$89,200	$96,100	$102,000
	4 or more	Female	32	$93,700	$97,400	$101,800
Associate Professor	0–2	Male	38	$106,400	$117,200	$130,800
	0–2	Female	22	$100,300	$107,800	$128,300
	3 or more	Male	39	$108,000	$115,100	$123,300
	3 or more	Female	27	$106,900	$121,600	$142,400
Full Professor	0–6	Male	55	$134,700	$157,600	$182,800
	0–6	Female	24	$126,600	$136,200	$197,900
	7 or more	Male	73	$148,200	$185,000	$207,100
	7 or more	Female	17	$131,500	$161,400	$180,200

Table 3—2009 Salaries of Nonfaculty Academic Biostatisticians

Highest Degree	Years Since Highest Degree	Count	1st Quartile	Median	3rd Quartile	90th Percentile
Master's	0–2	19	$ 50,000	$ 57,400	$ 59,600	$ 71,100
	3–5	26	$ 53,800	$ 58,000	$ 71,000	$ 74,400
	6–10	16	$ 63,600	$ 65,900	$ 76,100	NA
	11–15	10	$ 65,500	$ 73,400	$ 74,800	NA
	16 or more	6	NA	$ 87,800	NA	NA
	All	80	$ 56,200	$ 64,600	$ 73,500	$ 80,000
PhD	All	14	$ 76,900	$ 87,200	$ 99,400	NA

Table 3 provides information about the salaries for full-time, nonfaculty, academic biostatisticians. (There were not enough responses for nonfaculty, academic statisticians to provide summary statistics.) Quartiles are provided for categories that have nine or more respondents. The 90th percentile is provided for any category that has 19 or more respondents. All percentiles are rounded to the nearest $100. (The information for three people with master's degrees did not include years since highest degree. They are included in the row marked "All.") ■

More on Biostatistics

Keith Crank, ASA Research and Graduate Education Manager

Starting on Page 17, I provide tabulations of salary information from the survey the ASA conducted last fall. The tables are for academic biostatisticians in both faculty and nonfaculty positions. The only surprising item (at least to me) is the big jump in salaries for new assistant professors. I believe this jump may be due more to the places that reported new assistant professors in the survey than to a big increase in what departments are willing (or able) to pay. However, it is a good sign for our profession that jobs with good pay are available.

This year, for the first time, we asked for gender information along with the salaries. I will suggest a story for the gender information provided in Table 2 on Page 16. (This is by no means the only explanation for these numbers, but it is one that seems reasonable to me.) As background, I refer you to a recent report of the National Research Council (NRC) titled "Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty." (This report is available at *www.nap.edu/catalog.php?record_id=12062*.)

Women accounted for approximately 55% of the PhDs in biostatistics over the past three years. Yet, only 47% of the people in the assistant professor category with one to three years in rank are women. The NRC report suggests this is not necessarily due to biases in the hiring practices of biostatistics departments. Their data indicate that women do not apply for tenure-track positions at the same rate as men. (See Chapter 3.)

The NRC report also discusses tenure and promotion. But, an important issue in this area is attrition before faculty reach those milestones. The NRC report does not address attrition directly, because the authors did not obtain data allowing them to do so. But, the data for biostatistics faculty suggests attrition of women may occur at a higher rate than for men in the assistant professor ranks. While 47% of the assistant professors with one to three years in rank are women, only 38% of the assistant professors with four or more years in rank are women. (Although it is possible women are granted tenure earlier than men, this is not supported by the data in the table. If this were the case, one would expect the percentage of women in the associate professor, zero to two years in rank, to be between 38% and 47%, but women only account for 37% of those reported in this category.)

Men and women appear to be getting tenure at comparable rates. The percentages of women in the assistant professor, four or more years in rank, and the associate professor, zero to two years in rank, are similar at 38% and 37%, respectively. Again, this is consistent with the NRC report, which indicates that when tenure decisions are being made, women are granted tenure at rates that are at least as high as men.

For promotion from associate to full professor, the NRC report indicates women and men are promoted at comparable rates. However, this does not appear to be the case for biostatistics faculty. The percentage of women in the associate professor, three or more years in rank, is 41%, while the comparable percentage for full professors, zero to six years in rank, is only 30%. In addition, the percentage of women is higher for associate professors with three or more years in rank than it is for associate professors with zero to two years in rank. This suggests women in biostatistics departments are more likely than men to remain as an associate professor, rather than being promoted to full professor.

This does not necessarily mean biostatistics departments are biased against their female associate professors. In fact, the higher salaries for women associate professors with three or more years in rank would suggest otherwise. An alternative explanation is that money, a major incentive for promotion to full professor, is less of an issue for biostatistics faculty than it is for faculty in other disciplines. In the February 2009 issue of *Amstat News*, I showed graphs of salaries for both statistics and biostatistics faculty. For associate professors, salaries of statistics faculty decreased with years in rank, while salaries of biostatistics faculty increased with years in rank. This suggests to me that female biostatistics faculty may not feel the promotion to full professor is that important, given the other demands on their time.

The scenario above is only one of many possible explanations for the information in the biostatistics salary table. While preparing the table, I found it interesting how consistent it seemed to be with the results of the NRC report. And I don't want to say that biases don't exist, only that other explanations also may be plausible.

To contact me, send an email to *keith@amstat.org*. Questions or comments about this article, as well as suggestions for future articles, are always welcome. ■

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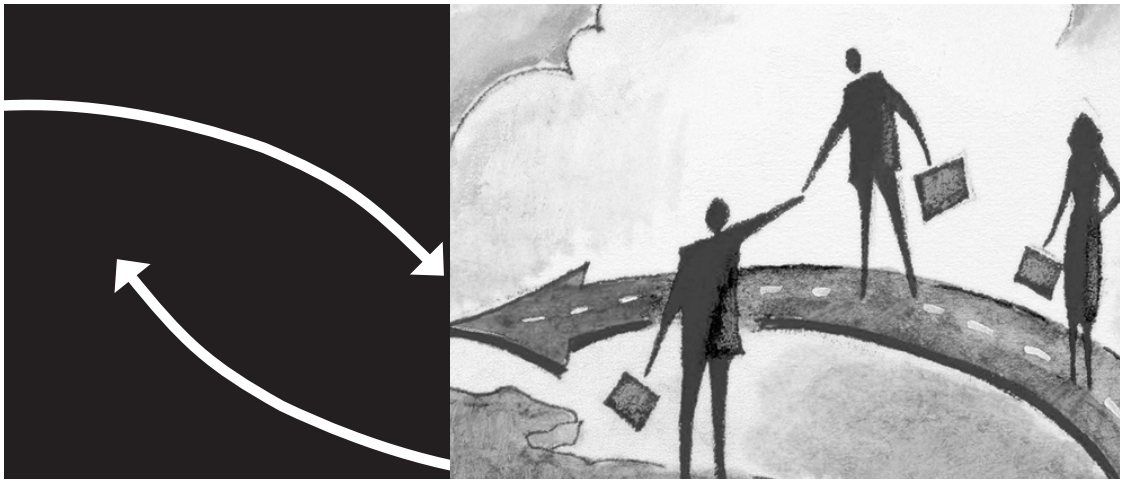

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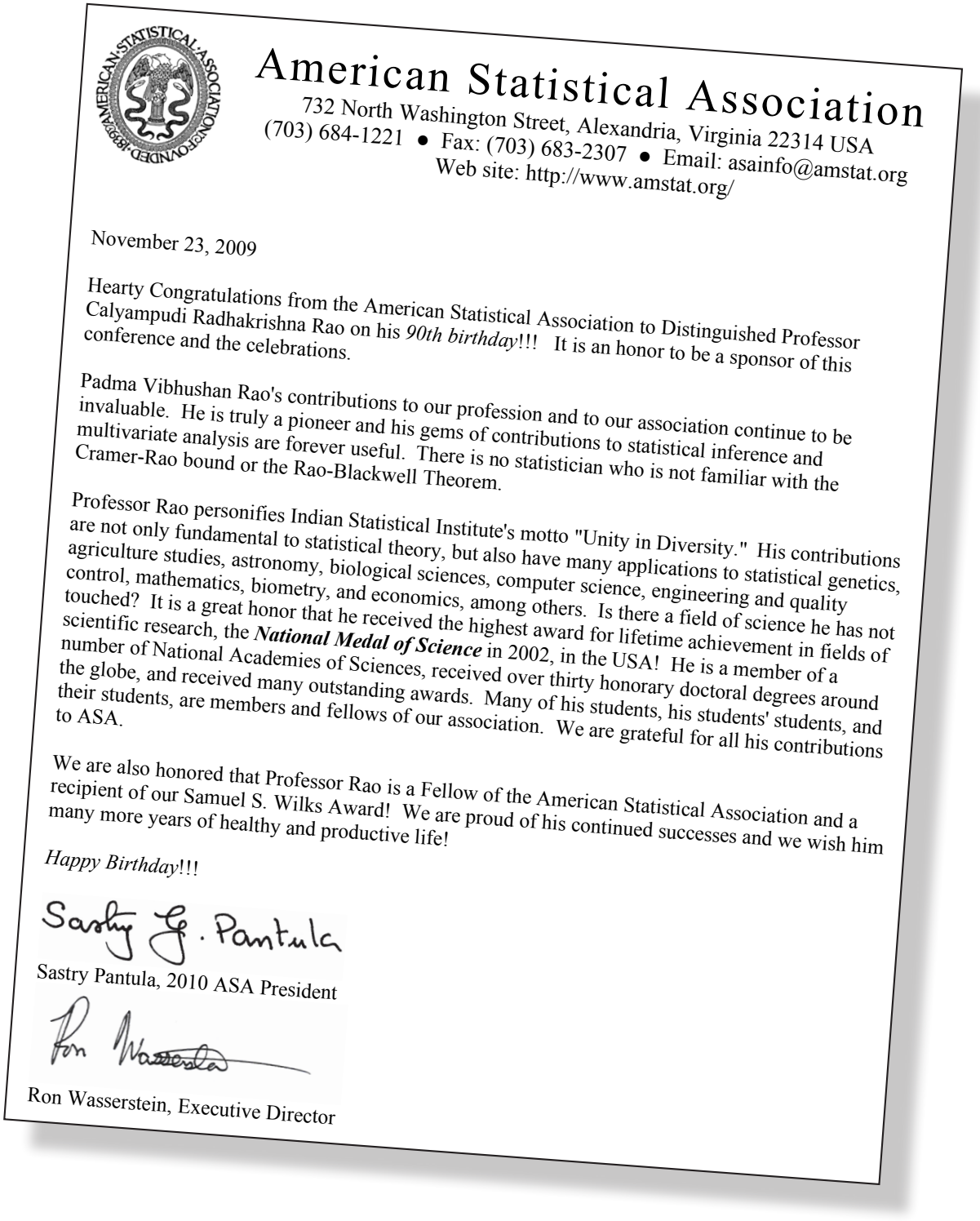
***member get a member** certificates are processed and awarded quarterly.*

ASA President Sastry Pantula and ASA Executive Director Ron Wasserstein sent the following letter in honor of Calyampudi Radhakrishna Rao's 90th birthday celebration:



American Statistical Association

732 North Washington Street, Alexandria, Virginia 22314 USA
(703) 684-1221 ● Fax: (703) 683-2307 ● Email: asainfo@amstat.org
Web site: http://www.amstat.org/

November 23, 2009

Hearty Congratulations from the American Statistical Association to Distinguished Professor Calyampudi Radhakrishna Rao on his *90th birthday*!!! It is an honor to be a sponsor of this conference and the celebrations.

Padma Vibhushan Rao's contributions to our profession and to our association continue to be invaluable. He is truly a pioneer and his gems of contributions to statistical inference and multivariate analysis are forever useful. There is no statistician who is not familiar with the Cramer-Rao bound or the Rao-Blackwell Theorem.

Professor Rao personifies Indian Statistical Institute's motto "Unity in Diversity." His contributions are not only fundamental to statistical theory, but also have many applications to statistical genetics, agriculture studies, astronomy, biological sciences, computer science, engineering and quality control, mathematics, biometry, and economics, among others. Is there a field of science he has not touched? It is a great honor that he received the highest award for lifetime achievement in fields of scientific research, the ***National Medal of Science*** in 2002, in the USA! He is a member of a number of National Academies of Sciences, received over thirty honorary doctoral degrees around the globe, and received many outstanding awards. Many of his students, his students' students, and their students, are members and fellows of our association. We are grateful for all his contributions to ASA.

We are also honored that Professor Rao is a Fellow of the American Statistical Association and a recipient of our Samuel S. Wilks Award! We are proud of his continued successes and we wish him many more years of healthy and productive life!

Happy Birthday!!!

Sastry G. Pantula

Sastry Pantula, 2010 ASA President

Ron Wasserstein

Ron Wasserstein, Executive Director

Michigan Biostatistics Celebrates Two Anniversaries

Roderick Little, University of Michigan Department of Biostatistics Chair

Felix Moore

Clarence J. Velz

RIchard Cornell

The University of Michigan Biostatistics Department held a conference in Ann Arbor November 13–14, 2009, to celebrate 55+/-5 years in existence … 55+/-5? Can they count? Or is that a 95% confidence interval? Well, the department of public health statistics at Michigan was formed in August 1949, 60 years ago, and renamed the department of biostatistics 10 years later. Hence, the University of Michigan Biostatistics 50/60 Conference.

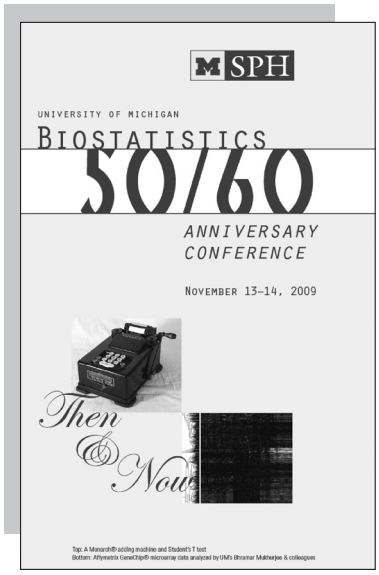
The conference featured a student/alumni poster session, talks by distinguished past faculty and alumni, and special sessions on career choice and the MS program in clinical research design and statistical analysis. Richard Cornell, former department chair, described the early days of the department, and Mark Becker, a former faculty member, gave a talk titled "Everything I Need to Know I Learned in UM Biostatistics."

In 1949, the department consisted of Clarence J. Velz as chair, Fay Hemphill as resident lecturer, Helen L. Johnson as instructor, Mildred E. Harter as resident lecturer, and John J. Freysinger as chief IBM operator. Its mission was teaching, research, and advisory service to other departments in the School of Public Health and related groups. The statistical method was seen as a tool in the various public health disciplines and practices, not as an end in itself. Courses in public health statistics were taught and research was conducted on the prediction of poliomyelitis in 48 states, environmental analysis, public health economics, and demography.

Velz was succeeded by Felix Moore in 1956, and in 1960, the department was renamed the department of biostatistics as part of a major school reorganization. In June of 1971, Cornell, formerly a professor at Florida State University, took over as chair. This was a difficult time; the department failed to renew a public health service grant that funded students, forcing it to find other sources of funding. The department grew steadily under Cornell's leadership, who served as chair from 1971–1983 and interim chair from 1990–1993.

In the last 25 years, the department has been chaired by Morton Brown, Graham Kalton, Jack Kalbfleisch, and Roderick Little. It was announced at the conference that Trivellore Raghunathan will become the next chair.

The department is one of the largest statistics groups in the country, with 28 core faculty, 51 administrative and research staff, more than 150 graduate students and postdocs, and about $15 million in research funding.



Major accomplishments include the following:

Randomized designs that reduce the number of trial participants who receive an inferior treatment, initiated by Cornell's work on the ECMO trial

Richard D. Remington and M. Anthony Schork's text on biostatistical methods and other seminal texts on multivariate analysis, survival analysis, and missing data

Fundamental changes in the U.S. system for determining organ donor allocations, saving lives of many individuals with end-stage heart, kidney, liver, and lung disease

Identification of genes for type-two diabetes (cited by *Time* magazine as one of the 10 most exciting medical breakthroughs of 2007), eye diseases, obesity, lipid levels, and other diseases and traits

Influential methodological contributions in areas such as the analysis of imaging data, survival and event history analysis, statistical genetics, bioinformatics, clinical trials, Bayesian methods, statistical computing, longitudinal data analysis, methods for missing data, and survey research

For more information about the department, visit *www.sph.umich.edu/biostat*. ■

SRMS Launches Webinar Series

Mike Larsen, SRMS Education Officer

November 10, 2009, marked the first webinar in a series the ASA Survey Research Methods Section (SRMS) is sponsoring this year and next. The webinar, by Mike Brink, was titled "Dual Frame Theory Applied to Landline and Cell Phone Surveys." Brink earned his PhD in statistics from American University and is vice president and director of the Survey Methods Unit at Westat. He is also a research professor in the Joint Program in Survey Methodology (JPSM) at the University of Maryland, an adjunct research professor at the University of Michigan, a Fellow of the American Statistical Association, and an elected member of the International Statistical Institute.

Nearly 90 people attended the webinar, with more than half completing the questionnaire following the presentation. A common request was to have time for questions, but that is difficult in a two-hour format, so questions from the audience were sent during the webinar and Brink's answers were posted the next day. Forty-eight people recorded how many people watched the presentation at their location. (A webinar can be watched by more than one person for the same price.) According to responses, there was an average of three people watching per connection, implying that more than 250 individuals participated.

The second webinar of the series, "The Psychology of Survey Response," will be presented by Roger Tourangeau on February 9. Tourangeau holds a PhD in psychology from Yale University and is a research professor at the University of Michigan's Survey Research Center and the director of JPSM. In 2002, Tourangeau received the Helen Dinerman Award for his work on the cognitive aspects of survey methodology. This is the highest honor given by the World Association for Public Opinion Research. In 2005, he received the American Association for Public Opinion Research Innovators Award. He was elected a Fellow of the American Statistical Association in 1999 and served as chair of SRMS in 2006. Information about the webinar, including how to register, can be found at *www.amstat.org/sections/srms/webinar.cfm*.

Suggestions for speakers and topics can be sent to Mike Larsen, SRMS education officer, at *mlarsen@bsc.gwu.edu*. ■

Workings of a Webinar

Participants register for each webinar for a modest fee. Each registration is allowed one web connection and one audio connection. Multiple persons can view each registered connection. The webinars, which typically last two hours, are a way for a department, agency, or company to deliver educational material to many people at once (e.g., in a conference room equipped with a computer, projector, screen, and speakerphone).

Handouts are made available a couple of business days before the presentation. During the webinar, the presenter controls the flow of the presentation, which the audience sees on a computer screen in real time. Questions for the presenter can be submitted using the chat feature found on the webinar web page. The presenter can see the questions as they arrive and may have time to answer a few during the webinar. Others can be answered in writing after the talk and a file posted for viewing.

Computational Advertising: The Ultimate Match-Making Challenge

The National Institute of Statistical Sciences (NISS) hosted a workshop on computational advertising in November of 2009. This area comprises a new set of statistical challenges stimulated by the Internet becoming the medium of choice for many advertisers.

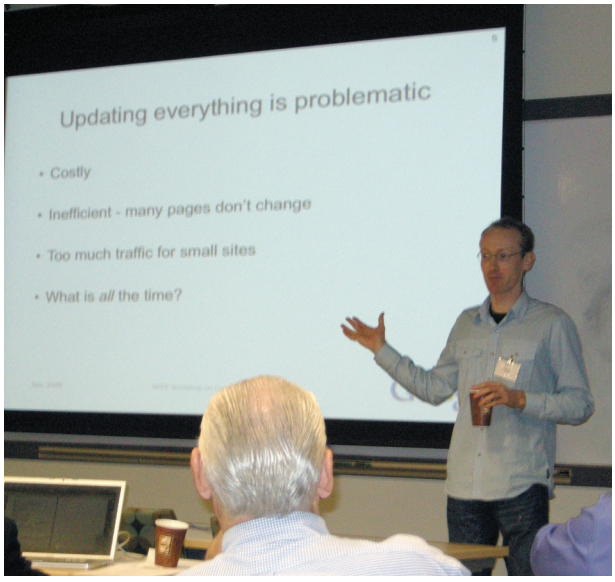
The workshop focused on three topics that are critical to the business models of Yahoo, Google, Microsoft, and other corporations:

Display advertising. How can ads be matched to web page content and reader interests, needs, and preferences based on data collected by a web site?

Search engines, especially sponsored search. How do data inform economic models of the auctions by which keywords and link placement are sold, taking into account the multiple perspectives of search engine operators, advertisers, and users?

Recommender systems. Think Netflix: How can users be provided useful recommendations given the extreme sparsity of the data? Most viewers rate only a few movies, and most movies are rated by only a few customers.

Kishore Papineni of Yahoo gave the workshop's introductory talk, setting up the big-picture perspective that informed the talks and discussion. Silviu-Petru Cucerzan of Microsoft described a spelling corrector that uses nearly correct spellings to correct grossly incorrect ones. Daniel Ford of Google described optimal refresh rates for search engine indexes of web sites. Deepak Agarwal of Yahoo spoke about multi-armed bandit models for content placement on the Yahoo front page. Carl Mela of Duke University spoke about behavioral game theory and models of auctions for keywords and advertisement placement. Daryl Pregibon of Google spoke about advertiser graphs that indicated which companies compete for the same keywords and how mining this information leads to improvement for



Daniel Ford of Google describes optimal refresh rates for search engine indexes of web sites.

Bob Bell of AT&T Labs Research talks about aspects of the Netflix competition.

ASA Members Part of $1M Win

ASA members Bob Bell and Chris Volinsky—along with their team, BellKor's Pragmatic Chaos—won the $1 million Netflix prize for coming up with an algorithm that improved the online movie rental service's recommendation system.

Other members of the winning team include Martin Chabbert, Michael Jahrer, Yehuda Koren, Martin Piotte, and Andreas Toscher. All team members attended the awards ceremony in New York City on September 21, 2009.

Netflix launched the competition in October of 2006 and made available to contestants 100 million anonymous movie ratings ranging from one to five stars. All personal information identifying individual Netflix members was removed from the prize data, which contained only movie titles, star ratings, and dates. No text reviews were included. More than 40,000 teams from around the world competed.

The team prepared a system description consisting of three papers, which can be downloaded at *www.netflixprize.com/community*. For more information, visit *www.research.att.com/~volinsky/netflix/bpc.html*.

consumers, advertisers, and Google. Charles Elkan of the University of California, San Diego, and Bob Bell of AT&T Labs Research both spoke about aspects of the Netflix competition. Elkan addressed it from the standpoint of recommender systems in general, and Bell shared his experience as a member of the team that won the Netflix prize.

Computational advertising is defining new and highly profitable enterprises. The workshop made it clear that there are challenges amenable to straightforward statistical thinking and more challenges that demand fundamental new research. The corporate players recognize this; they have gotten great value from the computer science community and hope to reap similar rewards from engagement with statisticians.

Copies of some of the presentations are available in the past events section of the NISS web site at *www.niss.org*.

The workshop was presented under the auspices of the NISS Affiliates Program and organized by Agarwal, David Banks of Duke University, and Alan Karr of NISS, who think computational advertising poses many exciting opportunities for statistical research. ■

Stochastics Institute Reaches Milestone

On December 14, 2009, EURANDOM—an international research institute in stochastics at the Eindhoven University of Technology—celebrated the 100 workshops they have initiated throughout the past 11 years. "We will surely continue these initiatives. Next year, there will be an emphasis on workshops organized for and by young researchers," said Onno Boxma, EURANDOM director.

The first workshop, organized by Mike Keane, took place on November 14, 1998. This and the several workshops that followed were hosted by Dutch researchers, broadening and strengthening the international position of Dutch stochastics.

The 100th workshop, "Dynamic Random Environments," was motivated by problems in physics. The mathematical investigation of transport in random media has been an active area of research throughout the last 30 years, rich in surprising effects and mathematical challenges. Epidemics, genetics, and evolution of competing populations (from biology); catalytic systems, localization of waves, and ageing in disordered systems (from physics); and dynamic random networks (from computer science) are examples of situations in which randomness in a medium is the source of interesting new phenomena, not displayed by static random media.

For more information about EURANDOM and the 100th workshop, visit *www.eurandom.tue.nl/100*. ■

Editors of *Chilean Journal of Statistics* Plan First Volume

The editorial board of the *Chilean Journal of Statistics* (*ChJS*) plans to publish the first volume of the journal in 2010 in memory of Pilar Iglesias (1960–2007), who served as the president of the Chilean Statistical Society from 1998–2003. It will include works based on Bayesian statistics, and several well-known researchers in statistics and probability have been invited to make contributions. Guest editors will include Marcia Branco, Rosangela Loschi, Eduardo Gutiérrez-Peña, and Manuel Mendoza, with support from Fabrizio Ruggeri and Alicia Carriquiry.

The *ChJS* editorial board plans to publish one volume per year, with two issues in each volume. On some occasions, certain events or topics may be published in one or more special issues prepared by a guest editor.

The *ChJS* was launched in 2009 and is an official publication of the Chilean Statistical Society (*www.soche.cl*). It will take the place of *Revista de la Sociedad Chilena de Estadística*, which was published from 1981–2000. The *ChJS* is on the list of excellence research for Australia journals and has been ranked by the Australian Mathematical Society and Statistical Society of Australia.

The *ChJS* covers a broad range of topics in statistics, including research, survey and teaching articles, reviews, and material for statistical discussion. In particular, the ChJS considers timely articles organized into the following sections:

Theory and methods

Computation, simulation, and applications

Case studies and surveys

Teaching

Development, evaluation, reviews, and validation of statistical software and algorithms

Book reviews

Review articles

Short communications

Letters to the editor

Paper Submission

The editorial board is seeking papers, which will be refereed. Submissions should be sent in PDF format to Victor Leiva, executive editor, at *victor.leiva@uv.cl* or *chjs.editor@uv.cl*.

Papers must be written in English. If possible, LaTeX and Word editor should be used. Papers must contain the name and affiliation of each author and a leading abstract of no more than 200 words, followed by keywords. Sections must be numbered 1, 2, etc., where Section 1 is the introduction. References should be collected at the end of the paper in alphabetical order. For more information about formatting papers and references, visit *http://chjs.soche.cl* or contact Leiva. ■

Funds Needed for ISOSS House

The Islamic Countries Society of Statistical Sciences (ISOSS) has been holding conferences and workshops in Islamic countries for the last 20 years. To further enhance their activities, the ISOSS executive board has approved the establishment of a research center—the ISOSS House—where international conferences, seminars, research workshops, and academic courses will be offered.

Contributions from the international and national statistics community are being sought. All contributors will have their name put on marble bricks of different sizes. Locally, $11,000 has been collected. To find out more about the house or donate funds, visit *www.isoss.com.pk*. ■

Contributed Papers Sought for Methodology Symposium

The 2010 International Methodology Symposium, titled "Social Statistics: The Interplay Among Censuses, Surveys, and Administrative Data," will take place at the Crowne Plaza Hotel in Ottawa, Ontario, Canada, from October 26–29. Members of the community from private organizations, government, or academia are invited to attend, particularly if they have a special interest in statistical or methodological issues resulting from the use of multiple sources of data.

The symposium's first day will consist of workshops, with the following days including plenary and parallel sessions covering a variety of topics. Additional research and results will be presented via poster sessions.

Contributed papers related to the methodological aspects of using multiple sources of data are being accepted. Topics may include sampling frames and sample design, content and questionnaire design, data collection methods and acquisition of administrative data, statistical databases from administrative data (e.g., population registers), imputation, weighting and estimation, dissemination and data access, record linkage techniques, and small-area estimation.

Proposals must be submitted by email to *symposium2010@statcan.gc.ca* by March 31. They should include a 250-word abstract (written in French or English) highlighting the content of the presentation, as well as its title and full contact information for the presenter.

Applicants will be contacted by May 14 about acceptance. If papers are accepted, final presentation slides must be submitted (in English or French) by September 3. Proceedings from the conference will be published and disseminated to participants. Final papers will be due December 17.

For more information, visit *www.statcan.gc.ca/conferences/symposium2010/index-eng.htm*. ■

WANTED: Leadership

Nominate your choices for 2011 president-elect and vice president.

Questions and suggestions may be directed to Robert Mason, 2010 Committee on Nominations chair, at *rmason@swri.org* or Monica Clark, ASA special projects coordinator, at *monica.clark@amstat.org*.

All nominations are due by March 1, 2010.

Member Spotlight
E. J. Reedy

When I started working at the Kauffman Foundation in 2003, I had no idea I would come to consider myself a member of the statistical community. I was hired as a research assistant for the new vice president for research, Robert Litan, who was coming to Kauffman from the Brookings Institution. Litan was brought on to lead a major expansion of research and policy funding on entrepreneurship, the Kauffman Foundation's flagship topical focus. To improve research, a change in the data infrastructure was needed, as well.

Beginning in 2003, we increased our spending significantly on data and broadened our engagement with the national and international statistical communities on how best to measure entrepreneurship in a consistent manner. Early grants included a major study of the statistical infrastructure in the United States for measuring business dynamics by the National Academies and a new project at the Organisation for Economic Co-operation and Development (OECD) to look at what indicators of entrepreneurship might be available across countries from national statistical offices.

As a complement to that work, Litan also set about creating new research data sets on entrepreneurship. Historically, Kauffman had limited involvement in this area by funding the University of Michigan on a project called the Panel Study on Entrepreneurial Dynamics (PSED), but not to the degree it would become involved in the coming years. Following the advice of a small group of scholars, we implemented what would become the Kauffman Firm Survey (KFS). Little did I realize then that I would still be working on that project almost seven years later and that the KFS would become the largest and longest longitudinal survey on new businesses in the world.

The KFS follows a cohort of 4,928 firms that began operations in 2004. This cohort is tracked annually and queried on the background of the founders; the sources and amounts of financing; firm strategies and innovations; and outcomes such as sales, profits, and survival. The KFS is in its fifth collection period, with eight periods planned. When Litan assigned me to supervise the development of the KFS, I found two new areas of passion—survey research design and data dissemination.

In 2006, I took over supervision of data projects in an attempt to help Kauffman supervise investments in its marquee programs, leverage smaller projects, and direct scholars to the most appropriate data available for their lines of research.

Kauffman had two goals in funding panel surveys: data creation to advance understanding and to encourage broader academic interest. We naïvely believed academics needed only data access, and if we supported data, any data would be adopted swiftly. How wrong we were.

Reedy

Public-use data products are not always attractive to an academic audience, in which disciplinary norms promote proprietary data use in the publication and tenure process. Additionally, survey research firms give little emphasis to dissemination, leaving the process to academic principal investigators with only slight systematic knowledge accumulated.

So, here my second area of passion developed in helping to get the right data to the right people so it would actually be used in research and knowledge would be advanced.

To do so, I went about building a broader set of activities designed to support data work on entrepreneurship and innovation. The Kauffman Symposiums on Entrepreneurship and Innovation Data were conceptualized as "data trade shows," providing a venue for potential users of new data and producers of new data to connect. In its inaugural meeting, 130 people attended and 38 data sets were discussed. Reducing barriers for academics to 'test drive' data sets proved popular and efficient. It is a model we continue to build upon with a planned 2010 data symposium.

You can read my blog—Data Maven—at *www.kauffman.org/Blogs/DataMaven.aspx*. I was given the nickname "Data Maven" by a colleague and, while it seems a little silly, it does seem to match the role I play. By tracking new developments in entrepreneurship and innovation data, reducing barriers to systematic learning across projects, and encouraging the quick adoption of new data in research, we can leverage investments. I am lucky enough to work with a talented group of statistical professionals and academics who are trying to advance work in this area. I view my role as looking for the holes in the systems or significant opportunities to make sustained improvements in our statistical infrastructure and to understand these important topics.

I went to the University of Kansas for my undergraduate studies, where I majored in mathematics, economics, and American studies. I studied under Bozenna Pasik-Duncan in mathematics and ended up taking several graduate statistics courses. After graduating, I took a position at the Federal Reserve Bank of Kansas City in the management program and worked in a variety of departments before taking the job at Kauffman.

My real passion has always been community development. In college, that came through running KU's student-led volunteer programs at the Center for Community Outreach. Now, I view myself as one of the proud people working to build a better statistical community—a community that lies at the base of so much of the work being done to better understand our complex economies and how we can improve upon the system. ■

Contest Illustrates Importance of Statistics, Probability Courses

Morteza Marzjarani, Saginaw Valley State University

Each year, American Computing Machinery (ACM) and IBM sponsor a worldwide computer programming contest, which begins with regional contests. The east central North America region held its contest on October 31, 2009.

Participating were 115 teams drawn from 60 colleges and universities throughout western Pennsylvania, Ohio, Michigan, eastern Ontario, and Indiana (excluding the greater Chicago metropolitan area). The contestants solved eight problems in five hours. Each team consisted of three students under 25 years old.

This year, one of the problems was called "The Price Is Right Cover Up," in which students had to find the probability of winning using optimal strategy. To read the contest problem, go to *http://acm.ashland.edu/2009/problem-set.html*.

This problem was the deciding factor for the top-ranked contestants, making clear the need to emphasize probability and statistics courses to nonmajors. These courses are required by most disciplines, and in most colleges and universities, probability and statistics courses are part of the general education program. Therefore, statisticians have the opportunity to make sure nonmajors are aware of the importance of statistics and probability courses.

More information about the contest and a list of final standings for all teams can be found at *http://cm.baylor.edu/welcome.icpc*. ■

Statistics Without Borders Pushes Forward

Statistics Without Borders (SWB) has made great strides as an organization in the past several months. This ASA-affiliated group, which now includes nearly 100 volunteers, provides pro bono statistical expertise to organizations working on problems broadly related to international health issues. The mission statement recently adopted by SWB states the following:

> Statistics Without Borders is an apolitical organization under the auspices of the American Statistical Association, comprised entirely of volunteers, that provides pro bono statistical consulting and assistance to organizations and government agencies in support of these organizations' not-for-profit efforts to deal with international health issues (broadly defined). Our vision is to achieve better statistical practice, including statistical analysis and design of experiments and surveys, so that international health projects and initiatives are delivered more effectively and efficiently.

Since its inception in October of 2008, members of SWB have been busy with the following:

—Gathering information and building a database on the pro bono interests of its members

—Holding monthly executive committee meetings to discuss various issues and strategies

—Developing a web site

—Planning and holding its first organizational meeting during JSM 2009 in Washington, DC (see *www.washingtonpost.com/wp-dyn/content/article/2009/08/04/AR2009080403117.html*)

—Working with representatives from the Embassy of Madagascar to develop collaborative projects that support initiatives to improve health and college-level statistics education in Madagascar

—Establishing a Facebook presence (see *www.facebook.com/pages/Statistics-without-Borders/118114963213*)

—Helping The George Washington University students and staff of the Inter-American Development Bank plan a survey on bottled water usage in Mexico

—Advising the MesoAmerican Health Initiative in its planning for the evaluation of interventions in eight Central-American countries

—Assisting the Academy for Education Development in the review of evaluation plans for initiatives in two countries

—Holding preliminary discussions on potential collaborative efforts with CARE, Engineers without Borders, Mexican National Institute of Public Health, International Rescue Committee, XXV Foro Nacional de Estadística, UNESCO, American Association for the Advancement of Science, Nuba Water Project, and Inter-American Development Bank

—Encouraging involvement by members of other professional societies such as the Operations Research Society of Eastern Africa

For more information about SWB or to offer project suggestions, contact SWB co-chairs Gary Shapiro (*g.shapiro4@verizon.net*) or James J. Cochran (*jcochran@cab.latech.edu*). ■

Judges Wanted for ASA Project Competition

The ASA/NCTM Joint Committee on Curriculum in Statistics and Probability is seeking judges for the ASA Project Competition. Judging takes place via email during the summer and requires about four hours. If interested, email Megan Mocko at *mmeece@stat.ufl.edu* or call (352) 273-2975.

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CHANCE Highlights

Weldon's Dice Experiment, New Editors, and Much More

Mike Larsen, *CHANCE* editor

The issue published in December 2009 marked the end of *CHANCE*'s 22nd year. Included are entries on a variety of subjects: medicine (EEG wave classification, phase II clinical trials, home care services), sports (soccer, volleyball, and golf), insurance (viatical settlements), history (Blaise Pascal and Pierre de Fermat's letters), graphics, puzzles, and probability (Weldon's dice).

The issue also has a first: Associated with the article on Weldon's dice experiment by **Zac Labby** is a YouTube movie. Go to *www.youtube.com/watch?v=95EErdouO2w* and view Labby's dice-throwing machine in action. Weldon's original data were used by Karl Pearson when developing the chi-square statistic. Labby developed the machine as a project for Steve Stigler's History of Statistics course at The University of Chicago.

Wanli Min and **Gang Luo** present methods for classifying EEG waves and applications, particularly in sleep research. Two quite different articles about sleep research appeared in the first issue of 2009. ASA members who subscribe to *CHANCE* can read the trio together at *www.amstat.org/publications/chance*.

Andreas Nguyen and **Kelly Fan** discuss ethics associated with phase II clinical trials. Their particular focus is stopping rules, or when to terminate a trial due to early success or failure of a new treatment.

In Mark Glickman's Here's to Your Health column, **Douglas Noe, Ian Nelson, Shahla Mehdizadeh**, and **John Bailer** look at classification tree methods for predicting disenrollment of patients from home care services to nursing homes. There are significant costs, both personal and monetary, involved.

Fred Vars posits probability models for scoring a goal in soccer. The process of shooting for a goal in soccer is so complex that simplifying assumptions must be made when estimating chances of success. Vars compares his results to data and suggests the need for richer data sets.

Mark Schilling asks whether streaks exist in competitive volleyball. The existence of streaks is challenging to prove, and Mark discusses why. Meanwhile, **Bill Hurley** looks at the odds of the outcomes of a golf tournament and whether a victory by the U.S. team in the Ryder Cup was really amazing.

Mark Haug and **Heather Ardery** discuss viatical settlements, or the sale of life insurance policies to third parties. Has anyone ever asked you if you would bet your life? In this case, people do.

Virginia Vimpeny Lewis relates and explains the content of letters between Pascal and Fermat. This historic correspondence played a key role in the development of probability. Lewis provides detailed tables that would be useful in the classroom.

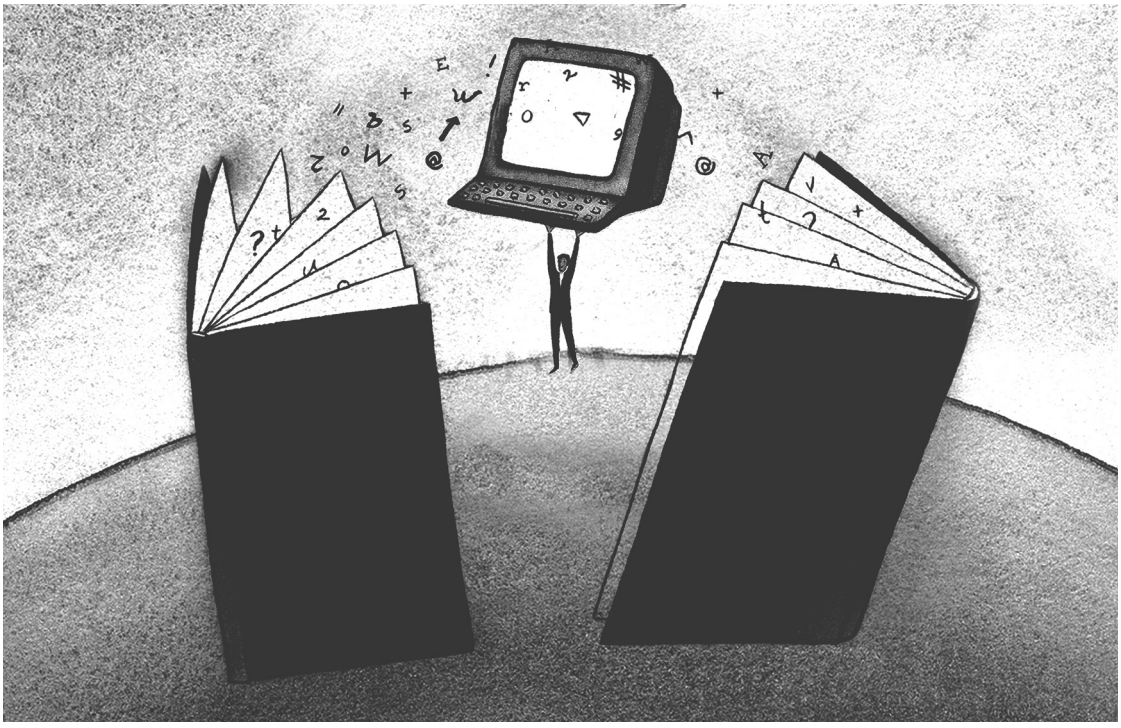
Howard Wainer, in his Visual Revelations column, critiques a graphic that appeared in *The New York Times* in May of 2009. Illustrations such as the one discussed are appealing for their color and context, but it is a challenge to accurately communicate information with a fancy graphic.

Jonathan Berkowitz, in his Goodness of Wit Test column, provides a variety cryptic in the bar-type style. Also, **Jüergen Symanzik** submitted a statistically based puzzle. Decode the data and provide an explanation and graphic. One winner will be selected from among the submissions submitted by January 28.

In other news, online library deals that include *CHANCE* magazine are on the rise. *CHANCE* went online for the first time in 2007, when *CHANCE* was covered in six such online deals. The type of deals and type and number of members or sites behind these deals vary greatly. In total, 159 institutions had exposure to *CHANCE* in 2007 due to the deals. In 2008, *CHANCE* was covered in 13 online deals and 380 institutions had exposure.

CHANCE magazine also will add new editors in 2010: **Michelle Dunn** (National Cancer Institute), **Jo Hardin** (Pomona College), **Yulei He** (Harvard Medical School), **Jackie Miller** (The Ohio State University), and **Kary Myers** (Los Alamos National Laboratory). Additional editors will help keep reviews of article submissions quick and effective and enable editors to take time to write articles and recruit articles on special topics. The editors will bring fresh perspectives and ideas to *CHANCE*. ■

The ASA Brings the Library to Your Desktop



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Technometrics Highlights

Special Issue Focuses on Computer Modeling

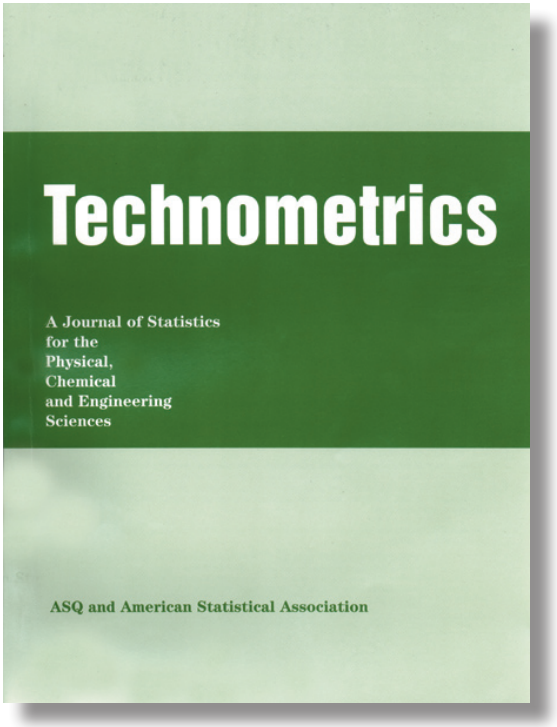
David M. Steinberg, *Technometrics* Editor

Computer simulation has become a standard tool for attacking many scientific and engineering problems. Processes are studied using software that simulates nature via a mathematical model; a work-station or computer cluster replaces the test bench. Such computer models generate data (often large amounts) that must be analyzed. And care is needed at the design stage to determine informative simulation settings. Thus, these studies have much in common with conventional laboratory or field experiments. However, they also have some unique features that have served as the trigger to a substantial body of statistical research throughout the last 20 years.

The November 2009 issue of *Technometrics* is a special collection of articles on statistical problems that arise in computer modeling. The stimulus for this issue was a focus year on the topic held in 2006–2007 at the Statistical and Applied Mathematical Sciences Institute (SAMSI). Participants were invited to submit papers to the special issue; most of the articles are the invited submissions that were accepted after *Technometrics*' regular review process.

The lead article, "Design and Analysis of Computer Experiments with Branching and Nested Factors," is by **Ying Hung**, **V. Roshan Joseph**, and **Shreyes N. Melkote**. It was motivated by a computer experiment in a machining process. Two cutting-edge shapes were considered. One was characterized by the angle and length of the shape. The cutting-edge shape is thus a branching factor and the angle and length are nested factors, with meaning only for the one shape. Other process factors are relevant for both types of cutting edge. Challenging problems arise in the design and analysis of experiments with branching and nested factors. The article develops optimal Latin hypercube designs and kriging methods that can accommodate branching and nested factors. Application of the proposed methods led the team to optimal machining conditions and tool edge geometry, which resulted in a remarkable improvement in the machining process.

Jason Loeppky, **Jerome Sacks**, and **William J. Welch** also study a problem in the design of computer experiments in their paper, "Choosing the Sample Size of a Computer Experiment: A Practical Guide." This paper produces reasons and evidence supporting the informal rule that the number of runs for an effective initial computer experiment should be about 10 times the input dimension. The arguments quantify two key characteristics of computer codes that affect the sample size required for a desired level of accuracy when approximating the code via a Gaussian process. The first characteristic is the total sensitivity of a code output variable to all input variables. The second corresponds to the way this total sensitivity is distributed across the input variables, specifically the possible presence of a few prominent input factors and many impotent ones (effect sparsity). The evidence supporting these properties stems primarily from a simulation study and via specific codes modeling climate and ligand activation of G-protein.



Complex high-dimensional computer models can sometimes be evaluated at different levels of accuracy. Accurate representation of a slow, but high-accuracy model may be improved by adding information from a cheap, approximate version of the model. Moreover, results from the latter version may lead to a more informed design for the accurate simulator. These are the questions

Important Terms

Simulator: The computer model, itself, which represents the physical phenomenon of interest

Emulator: An empirical (statistical) approximation to (or surrogate for) a simulator. An emulator is estimated by running the simulator at a variety of input settings and then modeling the resulting output data. Gaussian process models, one of the most popular approaches for generating emulators, treat deterministic simulator output as observed values from a random process, in which output at nearby locations in the input space is highly correlated. The resulting emulator 'predicts' the value of the simulator at an untested input setting using standard theory for conditional distributions of a multivariate normal distribution.

studied by **Jonathan Cumming** and **Michael Goldstein** in their article, "Small Sample Bayesian Designs for Complex High-Dimensional Models Based on Information Gained Using Fast Approximations." They describe an approach that combines the information from both models into a single multi-scale emulator for the computer model. They then propose a design strategy for the selection of a small number of evaluations of the accurate computer model based on the multi-scale emulator and a decomposition of the input parameter space. The methodology is illustrated with an example concerning a computer simulation of a hydrocarbon reservoir.

Computer models are often used for optimization of complex systems in engineering. In "Bayesian Guided Pattern Search for Robust Local Optimization," **Matthew Taddy**, **Herbert K. H. Lee**, **Genetha A. Gray**, and **Joshua D. Griffin** develop a novel approach. By combining statistical emulation using treed Gaussian processes with pattern search optimization, they are able to perform robust local optimization more efficiently and effectively than using either method alone. The approach is based on the augmentation of local search patterns with location sets generated through improvement prediction over the input space. They further develop a computational framework for asynchronous parallel implementation of the optimization algorithm. The methods are demonstrated on two standard test problems and a motivating example of calibrating a circuit device simulator.

Assessment of risk from natural hazards also exploits computer models. "Using Statistical and Computer Models to Quantify Volcanic Hazards," by **M. J. Bayarri**, **James O. Berger**, **Eliza S. Calder**, **Keith Dalbey**, **Simon Lunagomez**, **Abani K. Patra**, **E. Bruce Pitman**, **Elaine T. Spiller**, and **Robert L. Wolpert**, involves a combination of computer modeling, statistical modeling, and extreme-event probability computation. A computer model of the natural hazard is used to provide the needed extrapolation to unseen parts of the hazard space. Statistical modeling of the available data is needed to determine the initializing distribution for exercising the computer model. In dealing with rare events, direct simulations involving the computer model are prohibitively expensive. The solution instead requires a combination of adaptive design of computer model approximations (emulators) and rare event simulation. The techniques developed for risk assessment are illustrated on a test-bed example involving volcanic flow.

Jonathan Rougier, **Serge Guillas**, **Astrid Maute**, and **Arthur D. Richmond** consider statistical aspects of climate study in their article, "Expert Knowledge and Multivariate Emulation: The Thermosphere-Ionosphere Electrodynamics General Circulation Model (TIE-GCM)." This simulator of the upper atmosphere has a number of features that are a challenge to standard approaches to emulation, such as a long run time, multivariate output, periodicity, and strong constraints on the inter-relationship between inputs and outputs. These kinds of features are not unusual in models of complex systems. The authors show how they can be handled in an emulator and demonstrate the use of the outer product emulator for efficient calculation, with an emphasis on predictive diagnostics for model choice and validation. The emulator is used to 'verify' the underlying computer code and improve physical understanding of the simulator.

It is often helpful to approximate a complex simulator with a statistical model, known as an emulator. The use of Gaussian process models has been especially popular for generating emulators. In "Diagnostics for Gaussian Process Emulators," by **Leonardo S. Bastos** and **Anthony O'Hagan**, diagnostics are presented to validate and assess the adequacy of a Gaussian process emulator as a surrogate for the simulator. These diagnostics are based on comparisons between simulator outputs and Gaussian process emulator outputs for test data, known as validation data, defined by a sample of simulator runs not used to build the emulator. The diagnostics take care to account for correlation between the validation data. To illustrate the validation procedure, these diagnostics are applied to two data sets.

Actual experimental of field observation data may be available, along with output from running the simulator. An important problem then is to validate the simulator (i.e., show it accurately represents the real-life system that has been observed). How to accomplish this is the subject of "Bayesian Validation of Computer Models," by **Shuchun Wang**, **Wei Chen**, and **Kwok-Leung Tsui**. The proposed approach overcomes several difficulties of a frequentist approach proposed in Oberkampf and Barone (2004). Kennedy and O'Hagan (2000) proposed a similar Bayesian approach. A major difference between that approach and the one here is that Kennedy and O'Hagan focus on deriving directly the posterior of the true output. Wang and coauthors focus on first deriving the posteriors of the computer model and model bias (difference between computer and true outputs) separately, then deriving the posterior of the true output. As a result, the approach provides a clear decomposition of the expected prediction error of the true output. This decomposition explains why and how combining computer outputs and physical experiments can provide more accurate prediction than using only computer outputs or physical experiments. Two examples are used to illustrate the proposed approach.

Another area that makes extensive use of computer models is sensitivity analysis (i.e., understanding how sensitive models and decisions are to uncertain knowledge of inputs and identifying which inputs contribute most to the uncertainty). The latter problem is especially troublesome when some of the inputs are correlated. **Sebastien da Veiga**, **Francois Wahl**, and **Fabrice Gamboa** consider this issue in their article, "Local Polynomial Estimation for Sensitivity Analysis on Models with Correlated Inputs." They derive sensitivity indexes from local polynomial techniques and propose two original estimators that apply local polynomial smoothers. Both estimators have good theoretical properties. They are compared to the Bayesian approach developed in Oakley and O'Hagan (2004). The methods are then applied to two real case studies that have correlated input parameters.

The final article, "Simultaneous Determination of Tuning and Calibration Parameters for Computer Experiments," is by **Gang Han**, **Thomas J. Santner**, and **Jeremy J. Rawlinson**. Tuning and calibration are processes for improving the representativeness of a computer simulation code to a physical phenomenon. This paper introduces a statistical methodology for simultaneously determining tuning and calibration parameters when data are available from a computer code and the associated physical experiment. Tuning parameters are set by minimizing a discrepancy measure; the distribution of the calibration parameters is determined based on a hierarchical Bayesian model, which views the output as a realization of a Gaussian stochastic process with hyper-priors. Draws from the resulting posterior distribution are obtained by Markov chain Monte Carlo simulation. The methodology is compared to an alternative approach in examples and illustrated in a biomechanical engineering application. ■

This month's guest columnists, both ASA Fellows, write about the need for measurement to play a stronger role in economics and suggest a cultural shift in this field is necessary to realize such a change. They suggest numerous reforms to facilitate this shift.

~Steve Pierson, ASA Director of Science Policy, *pierson@amstat.org*

Measurement in Economics

Arthur Kennickell and Julia Lane

Among the obvious consequences of the financial crisis is the exposure of limitations in the available systems of information needed to detect, correct, and prevent such problems. Decades of neglect and underfunding have resulted in a U.S. statistical data infrastructure that is insufficient to respond to policy and research imperatives. At the same time, the failure to develop a flourishing culture of measurement in the economic profession means there has been little organized effort to mobilize the necessary support for change. Improvement will require not just money for new data initiatives and reform of existing programs, but also cultural change within the profession. Failure of the economics profession to respond risks a loss of capacity and credibility.

The current political environment is an important backdrop to bear in mind when addressing this issue. President Barack Obama is the first U.S. president to mention statistics and data in his inaugural address, and Office of Management and Budget Director Peter Orszag has called for evidence-based policymaking. As a result, federal agencies are being asked to manage their portfolios by using sound science, developing data sets, measuring outcomes, and evaluating performance.

Economics, Measurement, and Data

In the early history of the economics field, serious attention was devoted to the congruence of theory and data, as befits a scientific field. Particularly during the 1950s, such discussions appeared frequently in journals such as *Econometrica*, and the Cowles Foundation and the National Bureau of Economic Research showed serious interest. Later, Simon Kuznets and Wassily Leotief each won the Nobel Prize for contributions to economic measurement. Much of the early discussions focused on measurement questions related to national accounting, while information technology has recently made it feasible to make broad use of microdata to better address the behavior aspects of the field. Indeed, empirical researchers in labor economics and public finance, in particular, could not operate without microdata. Increasingly, policy work also requires microdata, where only aggregates were needed before.

Despite the increasing reliance on data, the broad engagement of economists with measurement has decayed. Increasingly, the profession has moved to a more passive approach to measurement, where the collection of information is implicitly treated as a second-class activity. Almost everywhere (there are brilliant exceptions, of course), graduate training relevant for measurement in economics has degenerated to perhaps the moment in the first econometrics course in which sampling

Science Policy Actions

The ASA signs a letter opposing a Senate amendment to add a question to the Decennial Census questionnaire in the 11th hour because of deleterious effects to the census.

The ASA president sends a letter of support to the president of Sociedad Argentina de Estadística for his efforts to defend national statistical agency independence.

The ASA signs letters to President Barack Obama in support of a robust fiscal year 2011 NIH budget request and with a pledge to support the administration's STEM education efforts.

The ASA signs a letter to Congress in support of the fiscal year 2010 U.S. Census Bureau budget.

A sixth Statistical Significance, titled "Statistics Aids in Drug & Device Development," is finalized.

distributions are introduced to give some foundation to t-statistics.

Aside from purely scientific motivations, this should be seen as an exciting time to be thinking about economic measurement. Advances in technology for the collection, storage, and sharing of data have been seized by such fields as biology (most notably in gene sequencing and inventorying of proteins), geoscience, and astronomy to make rapid advances. For economics, there is potentially a similar explosion of information—some of which has been filtered through new surveys or other classical measurement systems and much more that is created constantly by the functioning of the economy.

The relative passivity of economists may be seen as a rational response to the professional rewards for investing in data infrastructure development. The collection and dissemination of data has many of the features of a public good, and generally the profession fails miserably to assign academic credit for such work. Similarly, foundation funding is typically available for analytical research, and data collection is secondary. Even when data are collected, there is usually no incentive (at best) to document and disseminate those data.

Conceptual Framework: Economists and the System of Measurement

Economists can play at least four important roles in contributing to a system of measurement for economic research—from the small to the large scale. At the most granular level, economists can help drive the quality of the information measured. They can do this by direct engagement in the design of the data collection. The engagement of economists in the creation of surveys, such as the Survey of Consumer Finances or the National Longitudinal Surveys of Youth, led to the creation and transformation of entire fields of research. The input of economists at the many points at which decisions need to be made can have a large effect on the analytical outcomes based on a given information collection.

For example, at the simplest level, economists can help ensure that the complex chain of language used to describe the objects measured has the closest possible alignment with conceptual objectives from the beginning to the end. They can ensure that critical elements are retained on administrative and survey records to facilitate linkages across records, as in the Longitudinal Employer-Household Dynamics program. Economists also can apply economic principles to improve the quality of measurement systems, themselves. In surveys, for example, incentives can be designed to improve the quality of information collected by interviewers. The current incentive structure, in which interviewers are under serious pressure to complete interviews at minimal cost —rather than on the quality of the information they collect—seriously jeopardizes data quality.

Regardless of the quality of the data, they have little utility if there is no access. Economists can be proactive in promoting access. The agitation by German social scientists to "set the data free" resulted in the establishment of a new German data infrastructure for empirical research in the social and economic sciences and the transformation of German research. Economists should be much more vocal about the degradation of data quality associated with statistical disclosure limitation techniques and the burdens imposed by requiring researchers to physically go to research data centers to access data.

At a system-wide level, economists can improve the evaluation of measurement—a crucial component of a healthy measurement system—by identifying gaps in the data infrastructure that limit analysis. Systems of measurement should be driven as much as possible by research needs. Economists represent an important and heterogeneous group of data users, who possess understanding of the regularities and irregularities of a large number of particular data structures and the information gaps constraining research. Thus, for example, economists can provide the broad perspective necessary to evaluate the quality of microdata underlying a survey originally constructed for other purposes. The development of such a broad perspective would not only provoke improvement in the quality of particular measurement systems, but substantially advance the collective understanding and practice of economics in a more classically scientific way.

Possible Reforms

Several reforms are likely necessary to encourage the roles we see for economists to play in contributing to a system of measurement for economic research. Not surprisingly, this encouragement is grounded in creating an incentive-compatible framework that encourages continued participation in a collective evaluative process.

To increase the benefits to contributing, journals might require that empirically based articles contribute to a common structure as a condition of publication. The programs of national meetings of economists could include sessions explicitly targeted to data improvement. Social science funding organizations could require contributions to data be listed in a manner similar to publications. The profession could agree on standardized citations of data, like publications. Approaches such as these would increase the returns to individual investments in building data systems.

The cost of documenting and disseminating data needs to be reduced. Progress in this direction would be eased by improved training in graduate programs in "data science," as well as in econometrics.

Investments could be made in data centers that can be accessed from individual researchers' desktops. Such centers could be used to create collaborations that combine knowledge about data (through metadata documentation), augment the data infrastructure (through adding data), deepen knowledge (through wikis, blogs, and discussion groups), and build a community of practice (through information sharing).

It also has been argued that a shortage of money constrains economic measurement. Certainly, there are ongoing systems of measurement that could be improved if additional funds were available, and there are new systems that could be started. But, in general, without a more basic change in attitude toward measurement, much money could be spent for far too little benefit. Where measurement is not noticeably valued as an activity, only highly altruistic people and those without competing opportunities will be likely to participate.

Altruism is probably not a reliable, sustainable force for any particular system of measurement. Failure to attract sufficiently talented people will have heavy long-run costs not just for economic research, but also for economic policy that depends on data. Failure of the profession to engage with measurement is likely to lead to further deterioration of existing measurement systems and inefficient development of any new systems.

A proactive response requires collective action: leadership from important organizations of economists and the active and enthusiastic engagement of the broader economics profession. In our judgment, failure to respond will seriously reduce the capacity and credibility of the economics profession. ■

Editor's Note: The opinions expressed in this column are those of the authors and do not necessarily reflect the views of the Board of Governors of the Federal Reserve System or the National Science Foundation.

Emanuel Parzen Retires

Distinguished Professor, Emanuel Parzen retired on August 31, 2009 after more than 30 yrs of service to the Department of Statistics and Texas A&M University. Manny was educated at Harvard (B.A. 1949) and University of California Berkeley (Ph.D. 1953). He has served as a Statistics faculty member at Columbia (1953-56), Stanford (1956-70), SUNY Buffalo (1970-1978), and a visiting faculty at Imperial College London, M.I.T., IBM, Harvard, and the Center for Advanced Study in the Behavioral Sciences. He joined the faculty at Texas A&M University as a Distinguished Professor of Statistics in 1978.

Dr. Parzen has received many prestigious honors including the Samuel S. Wilks Memorial Medal from the American Statistical Association for outstanding research in Time Series Analysis, especially for his innovative introduction of reproducing kernel spaces, spectral analysis and spectrum smoothing. He has also received the Distinguished Achievement Award in Teaching from Texas A&M University and the American Statistical Association's Noether Senior Award for Research in Nonparametric Statistics. Dr. Parzen is a Fellow of the American Association for Advancement of Science, the Institute of Mathematical Statistics, as well as the American Statistical Association. In honor of his extraordinary career, "The Emanuel and Carol Parzen Prize for Statistical Innovation" was established by the Department of Statistics at Texas A&M University in 1994.

Professor Parzen is internationally famous as an innovator of many important methods of modern probability and statistics (including time series analysis by reproducing kernel Hilbert spaces, nonparametric and quantile data modeling, spectral and probability density estimation, and philosophy of unification of statistical practice, research and education). He has published more than one hundred research papers and six books.

Dr. Parzen was honored with a special brunch held on Sunday, August 2, 2009 at the Ebbitt Grill in conjunction with the Joint Statistical Meetings in Washington, DC to celebrate his retirement and 80th birthday. More than 150 of Parzen's colleagues, family and friends joined in the momentous celebration for such an enthusiastic and charismatic statistician. In addition, Dr. Parzen presented a last lecture entitled "A Last Lecture 1949-2009: Managing the Present, Predicting the Future, Learning from the Past, Multi-Circle Statistical Teams" to his colleagues and friends on August 31, 2009. Another reception of more than 120 guests followed for colleagues and friends of the distinguished honoree at the Texas A&M University Club.

Mohsen Pourahmadi with Parzen

Victor Solo with Emanuel & Carol Parzen

Parzen with Shalom Shlomo

In recognition of Emanuel Parzen's retirement, he has received Distinguished Professor Emeritus status with Texas A&M as well as being named the *Inaugural Professor in Residence* of the Department of Statistics. In this position, Dr. Parzen will be working directly with Department Head, Simon Sheather, on producing a foundational video on the history of statistics. He will also participate in on-line panel discussions and meet throughout the year with colloquium speakers and departmental visitors as well as continue his research collaborations with graduate students and faculty.

Four Chosen as USPROC Winners

Carl Lee, Central Michigan University

Four winning and four honorable mention projects were selected for the 2009 Undergraduate Statistics Project Competition (USPROC), sponsored by the Consortium for the Advancement of Undergraduate Statistics Education (CAUSE). The top four winners and their project advisors were invited to the award ceremony and asked to present their winning projects at the 2009 U.S. Conference on Teaching Statistics (USCOTS). The awards for the winning projects included a cash prize and plaque. The winning students' departments also received a plaque.

The 2009 USPROC winners include the following:

First Place
Gerald Haun and Adrienne Gallo, University of the Sciences in Philadelphia, for "Hierarchical Linear Modeling of the Effects of Self-Reflection Strategies on Mood"
Faculty Sponsor: Ralph M. Turner

Second Place
Chee Lee, St. Olaf College, for "Random Forest to Predict a Complete Operon Map of the *Mycobacterium tuberculosis* Genome"
Faculty Sponsor: Paul Roback

Third Place
Kinjal Basu and Sujayam Saha, Indian Statistical Institute, for "Estimation of Allele Frequencies from Quantitative Trait Data"
Faculty Sponsors: Saurabh Ghosh and Anil Kr.Ghosh

Front row: Nicolas Christou (UCLA), Victor Louie (UCLA), Ralph Turner (University of the Sciences in Philadelphia), Carl Lee (Central Michigan University), and Chee Lee (St. Olaf College); Back row: David Zes (UCLA), Kinjal Basu (Indian Statistical Institute), Sujayam Saha (Indian Statistical Institute), Gerald Haun (University of the Sciences in Philadelphia), and Dennis Pearl (The Ohio State University)

Sixteen judges helped select the winning projects for 2009. At the initial screening stage, each project was judged by five judges. Based on the scores from those judges, 12 projects were selected for scoring by all 16 judges to produce the final winning projects. The 2009 committee members* and judges include the following:

Kahadawala Cooray, Central Michigan University
Phyllis Curtiss, Grand Valley State University
John Daniels, Central Michigan University
Felix Famoye*, Central Michigan University
Daniel Frobish, Grand Valley State University
Tisha Hooks, Winona State University
John Holcomb*, Cleveland State University
Soon Hong, Grand Valley State University
Jennifer Kaplan, Michigan State University
Carl Lee*, Central Michigan University (chair)
Christopher Malone*, Winona State University
James Mentele, Central Michigan University Research Corporation
Tim Rey, Dow Chemical Company
Gerald Shoultz, Grand Valley State University
Nathan Tintle*, Hope College
Jeff Witmer*, Oberlin College

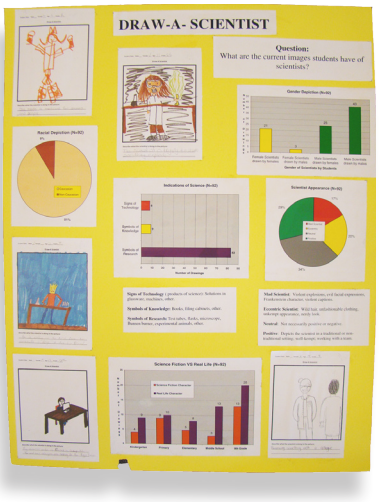
Fourth Place
Victor Louie and Maykel Vosoughiazad, University of California, Los Angeles, for "Recent Trends in Methane: A Spacio-Temporal Analysis"
Faculty Sponsors: Nicolas Christou and Dave Zes

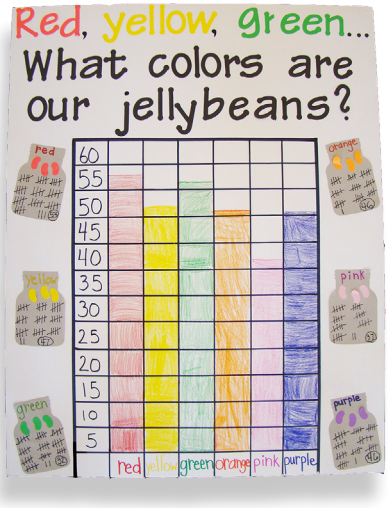
The abstracts of the winning projects can be found at *www.causeweb.org/usproc*.

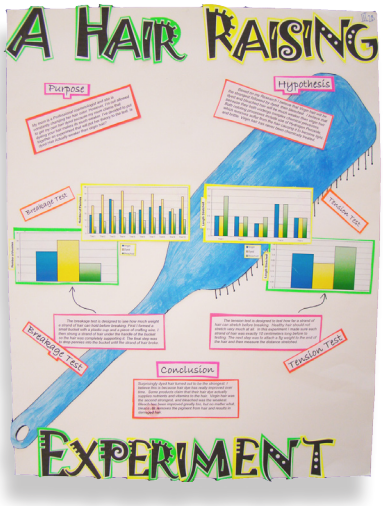
The purpose of USPROC is to encourage the development of data analysis skills, enhance presentation skills, and recognize outstanding work by undergraduate statistics students. USPROC is a biennial competition open to any undergraduate student globally. Project topics must involve statistical applications using data. The criteria for project evaluation include appropriateness of data collection, data analysis and conclusion, clarity of presentation, and originality and importance of the topics.

The USPROC committee is planning for the 2011 competition. Visit *www.causeweb.org/usproc* for more information. ■

2010 Poster and Project Competitions Need Entries





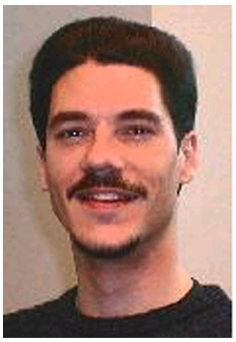


Introduce K–12 students to the world of statistics through the 2010 poster and project competitions, directed by the ASA/NCTM Joint Committee on the Curriculum in Statistics and Probability. The competitions, now in their 21st and 24th years, respectively, offer opportunities for students to formulate questions, gather and display data, and draw conclusions from data.

Winners are recognized with plaques, cash prizes, certificates, and calculators (donated by Texas Instruments) and their names are published in *Amstat News*.

Posters judged in four grade-level categories (K–3, 4–6, 7–9, and 10–12) are due every year on April 1. Projects are due on April 1 for grades 4–6 and 7–9 and on May 30 for grades 10–12. More information about the poster and project competitions, including entry forms and two instructional webinars, is available at ***www.amstat.org/education/posterprojects/index.cfm***.

Bradley Carlin



Carlin

The University of Minnesota School of Public Health (SPH) has appointed **Bradley P. Carlin** head of the division of biostatistics.

Carlin, who has been a professor in the SPH since 1991, will take over as division head in May. He will work with other SPH leaders to solidify the division's ranking as one of the top biostatistics units in the nation. In addition to continuing the high level of research productivity among the division's faculty members, he will work to grow the division's student body and educational programs, as well as its focus on collaborative, translational research.

"As head of the division of biostatistics, I'm looking forward to working with colleagues across the University of Minnesota Academic Health Center," said Carlin. "More and more, it's critical for biostatisticians to collaborate with colleagues across the health sciences. Our division has a good track record of this sort of collaboration in the broader areas of clinical trials and environmental health, as well as the study of complex chronic conditions such as cancer, heart and lung disease, and HIV/AIDS."

John R. Finnegan, dean of the School of Public Health and assistant vice president for public health, is pleased to have Carlin join school leadership. "Carlin's energy and critical thinking will be an asset to his division and to the entire school," said Finnegan. "I'm looking forward to working with him in this next stage of his career and in this next chapter of division leadership."

Carlin's research interests include statistical applications in AIDS research, clinical trial monitoring, joint longitudinal and survival modeling, and spatial and spatio-temporal disease mapping. He also conducts geographical analysis by analyzing geographically indexed public health data. He is an expert in Bayes and empirical Bayes methodology, as well as Markov chain Monte Carlo methods for their implementation.

In 2003, Carlin was named Mayo Professor in Public Health, the highest faculty honor at the University of Minnesota School of Public Health. He has received the Mortimer Spiegelman Award from the American Schools of Public Health Association. He is also the 2008 recipient of the University of Minnesota School of Public Health Leonard M. Schuman Award for Excellence in Teaching.

Kung-Yee Liang

Kung-Yee Liang was recently selected as president of National Yang-Ming University (NYMU) in Taipei, Taiwan. Currently a professor at the Johns Hopkins Bloomberg School of Public Health, Liang will begin his appointment August 1.

A Fellow of the American Statistical Association, Liang has several goals as the new president of NYMU. The first will be "to maintain and enrich the tradition the university has had in devoting to the society," said Liang. "Another will be to inject the concept and raise the

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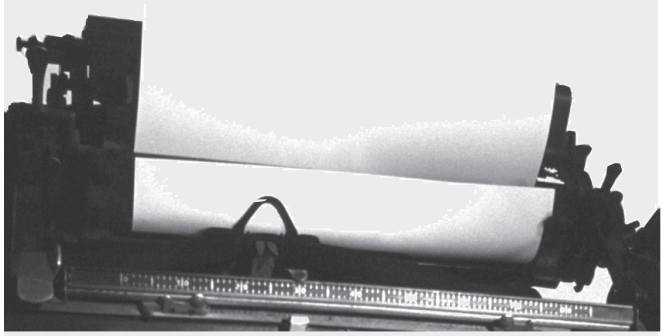


Breast Cancer: To Screen or Not to Screen
Susan Seligson of Boston University's *BU Today* reports on the controversial recommendation that unless women over the age of 40 are at high genetic risk, they should not begin routine mammograms until age 50. Donald A. Berry, a statistician at the University of Texas M. D. Anderson Cancer Center, is head of one of the research groups behind the decision.

Darts for Geeks: Statistician Cracks the Game's Secrets
Cameron Bird, in the December issue of *Wired*, reviews the Gaussian model created by Stanford University statistics student Ryan Tibshirani to calculate where he should aim to maximize his points in a game of darts.

Formula for Changing Math Education
TED, the web site that offers talks by remarkable people, highlights mathematician Arthur Benjamin's formula for changing math education: learn statistics.

awareness of public health as a part of the medical curriculum." He also said he intends to "promote interdisciplinary collaborations, both in terms of research and education."

NYMU was founded in 1975 as the Yang-Ming Medical College and became National Yang-Ming University in 1994 with six colleges, including medicine, dental, nursing, life science, medical engineering, and humanity. It is the first medically oriented university in Taiwan, with approximately 4,400 students (1,800 undergraduates) and 400 faculty members.

Jorge Luis Romeu

The 2007 Thomas L. Saaty Prize was awarded to **Jorge Luis Romeu** of Syracuse University, New York, for his paper, "Operations Research and Statistics Techniques: Keys to Quantitative Data Mining." The judges noted, "This paper critically overviews the main applications of statistics and operations research to the quantitative aspects of knowledge discovery in databases and data mining. It provides motivation for researchers with different backgrounds to interact for the common good and progress."

Romeu's paper appeared in Volume 26 of the *American Journal of Mathematical and Management Sciences*.

Correction

The month of December in the pull-out calendar that appeared in the December 2009 issue of *Amstat News* is wrong. The first day of December 2010 starts on a Wednesday. We apologize for any inconvenience.

Obituary
Ian Pablo Dusenberry

Ian Pablo Dusenberry, a member of the American Statistical Association since 2003, died from a pulmonary embolism on November 14, 2009.

Dusenberry began his undergraduate studies at Franklin and Marshall College before transferring to The George Washington University, where he earned a BS in statistics. While at GW, he interned for three summers at the National Human Genome Research Institute of the National Institutes of Health. He was employed as a mathematical statistician at the Bureau of Economic Analysis and pursuing a graduate degree in statistics. His goal was to work with the application of statistical concepts and computational methodologies in biomedical research.

Dusenberry is survived by his younger brother, Alexander Dusenberry; mother, Martha Dusenberry Pohl; stepfather, Mark R. Pohl; father, John Dusenberry; and stepmother, Cheryl A. London.

Obituary
Jacqueline Kennedy

Jacqueline Kennedy, a longtime member of the ASA, passed away November 8, 2009, at the age of 60.

Kennedy worked as a clinical statistician in the pharmaceutical industry for 25 years—first for Ayerst Pharmaceuticals, then for Wyeth (now Pfizer). She was instrumental in the development of several drugs in the inflammatory disease therapeutic area and retired as an associate director. Earlier in her career, she testified before a congressional committee on the hazards of hair dye and its potential risks on the health of hair stylists.

Kennedy spent many years in service to the statistics profession. The American Society for Quality recognized her dedicated service with an award for excellence for her work at the annual Deming conferences. She was an active member of the American Statistical Association, the American Public Health Association, and the Society for Clinical Trials, serving as a moderator or presenter at many of the meeting sessions.

Kennedy attended Prairie View A&M University in Texas on full scholarship, graduating magna cum laude with a bachelor's degree in mathematics and a minor in chemistry. At Prairie View, she was a charter member of the Eta Beta Chapter of Delta Sigma Theta Sorority, an organization with which she was actively involved for the rest of her life. She earned her Master of Science degree in biostatistics at Georgetown University. There, she was inducted into Pi Mu Epsilon, the mathematics honor society, and received a National Science Foundation fellowship to study at Brookhaven National Laboratory.

Kennedy was a wonderful family member to her brothers and sisters and a role model to their children, making every holiday with them "a teaching moment." After Hurricane Katrina, she tackled the challenging job of working to rebuild her parents' home in New Orleans, Louisiana.

Her generosity did not end with her family. Kennedy gave joyfully and endlessly to many causes, but particularly to education. A great mentor and supporter of youth, she encouraged young people to study hard, do well in school, and look beyond the present to reach their dreams. She was proud of her continuing service to the education and scholarship committees of the organizations she belonged to, especially Delta Sigma Theta, which made her a Golden Life Member.

Kennedy is survived by her father, Ernest Kennedy, and six siblings and their families: Feltus Kennedy (Alice) of New Orleans, Louisiana; Joe Nathan Kennedy (Dorethea) of Bluffton, South Carolina; Marilyn Kennedy Streeter of Gaithersburg, Maryland; Caroline Kennedy Piggott (Carl) of Fulton, Maryland; Sylvia Ernestine Morrison (Robert) of Silver Spring, Maryland; and Jocelyn Kennedy Stephenson (Brian) of Columbia, Maryland. She is also survived by a host of aunts, an uncle, nieces, nephews, godchildren, cousins, and many dear friends and colleagues.

Donations in Kennedy's name may be made to the Jacqueline Kennedy Mathematics and Science Endowed Scholarship, Office of Development, Prairie View A&M University, P.O. Box 519, MS 1200, Prairie View, TX 77446, Attn: Nelson Bowman. ■

Cox Award

The Gertrude M. Cox Award Committee is seeking nominations for the 2010 Gertrude M Cox Award. The award was established in 2003 in memory of Cox (1900–1978) through a joint agreement between the Washington Statistical Society (WSS) and RTI International. It annually recognizes a statistician in early to mid-career (roughly fewer than 12 years after his/her terminal degree) who has made significant contributions to one or more of the areas of applied statistics in which Cox worked: survey methodology, experimental design, biostatistics, and statistical computing.

The award is presented at the WSS annual dinner, usually held in June, with the recipient delivering the keynote address on a topic of general interest to the WSS membership. It includes a $1,000 honorarium, travel expenses to attend the dinner, and a commemorative plaque.

In 1945, Cox became director of the Institute of Statistics of the Consolidated University of North Carolina. In the 1950s, as head of the department of experimental statistics at North Carolina State College, she played a key role in establishing mathematical statistics and biostatistics departments at The University of North Carolina. Cox became the first head of the Statistical Research Division at the newly founded RTI upon her retirement from North Carolina State University in 1960. She was a founding member of the International Biometric Society (IBS) and, in 1949, became the first woman elected into the International Statistical Institute. She served as president of both the ASA (1956) and IBS (1968–1969). In 1975, she was elected to the National Academy of Sciences.

This award is made possible by funding from RTI International, and the recipient is chosen by a six-person committee. This year's committee consists of Paul Biemer, Phil Kott, and

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

February 1, 2010 ***W. J. Dixon Award for Excellence in Statistical Consulting***	Janice Derr, chair, W. J. Dixon Award Committee *Janice.derr@fda.hhs.gov*
February 15, 2010 ***Gertrude M. Cox Scholarship***	Eleanor Feingold, chair, Gertrude M. Cox Scholarship Committee *feingold@pitt.edu*
February 15, 2010 ***Outstanding Statistical Application Award***	Petruta C. Caragea, chair, Outstanding Statistical Application Award *pcaragea@iastat.edu*
March 1, 2010 ***Edward C. Bryant Scholarship for an Outstanding Graduate Student in Survey Statistics***	Kimberly Weems, chair, Edward C. Bryant Scholarship Committee *weems@stat.ncsu.edu*
March 1, 2010 ***Excellence in Statistical Reporting Award***	Telba Z. Irony, chair, Excellence in Statistical Reporting Award Committee *telba.irony@fda.hhs.org*
March 5, 2010 ***SPAIG Award***	Jai Won Choi, chair, SPAIG Award Committee *jchoi@mcg.edu* Rahul A. Parsa *Rahul.Parsa@drake.edu* Morteza Marzjarani *marzjara@svsu.edu*
March 9, 2010 ***Statistics in Chemistry Award***	Ken Goldberg, chair, Statistics in Chemistry Award Committee *kgoldber@its.jnj.com*
March 15, 2010 ***Founders Award***	Sally C. Morton, chair, Founders Award Committee *morton@rti.org*
March 15, 2010 ***Samuel S. Wilks Award***	Daniel Zelterman, chair, Samuel S. Wilks Award Committee *daniel.zelterman@yale.edu*
March 15, 2010 ***W. J. Youden Award in Interlaboratory Testing***	Chih-Ming Wang, chair, W. J. Youden Award Committee *jwang@boulder.nist.gov*
March 15, 2010 ***Waller Education Award***	June Morita, chair, Waller Education Award Committee *june@stat.washington.edu*

Marcus Berzofsky from RTI and Karol Krotki (chair), John Eltinge, and Michael Brick from WSS. Past recipients include Sharon Lohr, Alan Zaslavsky, Tom Belin, Vance Berger, Francesca Domenici, Thomas Lumley, and Jean Opsomer.

Nominations should be sent to Karol Krotki at *kkrotki@rti.org* by February 28.

Ellis R. Ott Scholarship

The Statistics Division of the American Society for Quality has $5,000 scholarships to support students who are enrolled in, or are accepted into, a master's degree or higher program with a concentration in applied statistics and/or quality management. This includes the theory and application of statistical inference, statistical decisionmaking, experimental design, analysis and interpretation of data, statistical process control, quality control, quality assurance, quality improvement, quality management, and related fields. The emphasis is on applications, as opposed to theory. Studies must take place at North-American institutions.

Qualified applicants must have graduated in good academic standing in any field of undergraduate study. Scholarship awards are based on demonstrated ability, academic achievement, industrial and teaching experience, involvement in student or professional organizations, faculty recommendations, and career objectives.

Application instructions and forms should be downloaded from *www.asqstatdiv.org*. Forms will be accepted until April 1.

Throughout the last 12 years, scholarships totaling $175,000 have been awarded to 34 students. Last year's winners include Wendy Kisch of Iowa State University in the PhD category and Jessica Jaynes of the University of California, Los Angeles, in the master's category.

The scholarship's governing board consists of Susan Albin, Nancy Belunis, Lynne Hare, J. Stuart Hunter, Tom Murphy, Robert Perry, Susan Schall, and Ronald Snee.

For more information, contact Hare at *lynne.hare@comcast.net* or 39 Mile Drive, Chester, NJ 07930.

Waksberg Award

Survey Methodology established an annual invited paper series in honor of Joe Waksberg to recognize his contributions to survey methodology. Each year, a prominent survey statistician is chosen to write a paper that reviews the development and current state of an important topic in survey methodology. The paper reflects the mixture of theory and practice that characterized Waksberg's work.

The recipient of the Waksberg Award will receive an honorarium and give the 2011 Waksberg invited address at the Statistics Canada symposium. The paper will be published in a future issue of *Survey Methodology*.

The author of the 2011 Waksberg paper will be selected by a four-person committee appointed by *Survey Methodology* and the American Statistical Association. Nomination of individuals to be considered as authors or suggestions for topics should be sent before February 28, 2010, to Dan Kasprzyk at *DKasprzyk@Mathematica-MPR.com*.

Previous Waksberg Award winners include Gad Nathan, Wayne Fuller, David Holt, Norman Bradburn, J. N. K Rao, Alastair Scott, Carl-Erik Särndal, Mary Thompson, Graham Kalton, and Ivan Fellegi. ■

Biometrics

Strategic Initiatives Grant Opportunity Available

Edited by Page Moore, Biometrics Section Publications Officer

The Biometrics Section is partnering with the Eastern North American Region (ENAR) of the International Biometric Society to fund three or four applications for projects that raise awareness of the biostatistics profession among high-school and college students. Of particular interest are projects encouraging students to pursue advanced training in biostatistics. Each grant can be up to $3,000.

Funds may be used to supplement ongoing efforts or to create new projects. In a recent case, a grant provided seed money for a subsequent, successful National Institutes of Health grant application. Other projects funded in the past include the following:

Promoting Biostatistics: Developing Materials for Linking Statistics and Biology Classes

Developing a Web Site to House Outreach Materials for AP Statistics Students and Their Teachers: Case Studies in Collaborative Research

A Biostatistics Apprenticeship Outreach Program for Urban Magnet High-School Students

A Synergistic Effort to Recruit Future Biostatisticians in Arkansas High Schools

Developing Outreach Materials for AP Statistics Students and Their Teachers: Case Studies in Collaborative Research

A three-page application is due January 31 and should be in the following format: title; objectives and specific aim; background, significance, and rationale; design and methods; and budget. A project period with start date no earlier than March 1, 2010, and ending no later than March 1, 2011, should be specified.

Permitted expenditures include supplies, domestic travel when necessary to carry out the project, and cost of computer time. Nonallowable expenditures include secretarial/administrative personnel, tuition, foreign travel, and honoraria and travel expenses for visiting lecturers to the investigator's home institution.

Applications should be submitted electronically to Bonnie LaFleur, Strategic Initiatives Subcommittee chair, at *blafleur@email.arizona.edu*. All investigators will be expected to submit a brief report at the conclusion of the project. For more information, contact LaFleur.

Time to Submit Abstracts for JSM 2010

Abstract submission opened December 1 for contributed and topic-contributed papers. All abstracts are due February 1.

As an alternative to contributed sessions, topic-contributed sessions are organized around a central topic and include 20-minute talks and possible discussants. Typically, sessions consist of five speakers (e.g., four speakers and one discussant or three speakers and two discussants). The 2010 JSM Biometrics

Section program chair, Hormuzd Katki, is collecting proposals for topic-contributed talks. If you are interested in organizing a topic-contributed session, contact him at *katkih@mail.nih.gov*.

Topic-contributed panel sessions are another alternative. They usually include three to six panelists who work together to submit one abstract for all speakers. See *www.amstat.org/meetings/jsm/2010/index.cfm* for more information.

The Biometrics Section will sponsor the following invited sessions during the 2010 Joint Statistical Meetings in Vancouver, British Columbia:

Statistical Evaluation of Markers Used to Select Treatment
Organizer: Margaret Pepe of the University of Washington

Study Design and Statistical Analysis Challenges in Women's Health Studies
Organizer: Marcia Ciol of the University of Washington

Evaluation of Risk Prediction
Organizer: Shulamith Gross of Baruch College

Getting More from Genome-Wide Association Studies
Organizer: Mitchell Gail of the National Cancer Institute

Nominations Sought

Do you know a young investigator who is planning to submit an abstract for the 2010 Joint Statistical Meetings? If so, you might mention that the Biometrics Section is seeking applications for the 2010 David P. Byar Young Investigator Award. This annual award is given to a young investigator for best emerging work to be presented during JSM. The award commemorates the late David Byar, a biostatistician who made significant contributions to the development and application of statistical methods and was esteemed as an exceptional mentor during his career at the National Cancer Institute. The winner will receive a $1,500 award. Additionally, the section may provide travel awards to the authors of other outstanding papers submitted to the competition.

Applicants must have held a doctorate in statistics, biostatistics, or a related quantitative field for three or fewer years as of April 1 of the current year or be enrolled as a doctoral student in statistics or biostatistics and in active pursuit of a doctoral degree. They also must be current members of the section and first author of the paper submitted. (Membership in the ASA does not automatically confer section membership. Applicants may join at the time of submission for a $5 annual membership fee.) The paper may be submitted to a journal or under review, but may not have appeared online or in print at the time of the application or have been accepted for publication as of January 1. Also, the paper may not have been submitted to any other ASA section student/young investigator award competition. Finally, applicants must be scheduled to present the submitted paper at JSM 2010 as a talk or poster presentation.

Applicants must submit their JSM abstracts to the Biometrics Section in addition to submitting them to the ASA by February 10. They also must contact Katki at *katkih@mail.nih.gov* prior to the abstract deadline. The section will organize a series of topic-contributed sessions to highlight the submitted papers.

By March 1, applicants should complete their application by submitting a cover letter certifying that they meet the eligibility requirements and are not submitting the paper to another ASA section student/young investigator award competition, a current CV, and one copy of the finished paper. All materials must be submitted electronically to Dan Heitjan, section chair, at *dheitjan@upenn.edu*.

The 2010 awards committee is composed of the current and past section chairs and chair-elect, as well as three individuals appointed by the section chairs. More information can be found on the section web page, easily accessed by clicking on the "Sections" link at the top of *www.amstat.org*. ■

Biopharmaceutical

A Look Back and Forward

The Biopharmaceutical Section has made considerable progress on its interactive outreach project: creating an interactive web site to increase the awareness of biopharmaceutical statistics as a career option for high-school and college students. The site will include graphics, live action web clips, and links to resources such as statistical reference and career guidance.

Phases one and two are complete. Phase one consisted of developing a prototype web site, while phase two consisted of developing live video content in which section members discuss the positive aspects of their jobs. Phase three—creating a complete, functional web site to host the graphic interface and videos—is under way. Visit *www.amstat.org/careers/whatindustriesemploystatisticians.cfm* to view the completed introductory video.

Member Survey, Other Projects

Ram Suresh and Ed Luo recently prepared and executed a member survey, which was the first since the 90s. Results are forthcoming.

The section's web-based learning program was launched in the spring of 2007 by Alex Dmitrienko with the support of former chair Brian Wiens and the executive committee. The program has since grown, with webinars being produced on topics such as classical sample size, hierarchical Bayes, design and analysis of count data, genomic data, and microarray data analysis.

Steve Gulyas and Jeremy Jokinen worked with Creative Street to produce the section's first video as part of the Web Clip Statistical Outreach Program. The video, which can be viewed at *www.amstat.org/careers/wmvs/Intro.wmv*, is already being used by AP Statistics teachers.

The section also sponsored the 2009 Non-Clinical Biostatistics Conference,

Thanks from the Outgoing Chair

Anna Nevius

This has been an exciting year for me as your Biopharmaceutical Section chair. Thank you for the opportunity. What we accomplished this year could not have been done without your help. I know I will leave out someone who has helped make this year a great success and I apologize, but I will forge on:

Kannan Natarajan, Past Chair

Katherine Monti, Chair-elect

Steve Gulyas, Treasurer

Rick Caplan, Secretary

Matilde Sanchez, Program Chair

Dionne Price, Program Chair-elect

Neal Thomas, Publications Officer

Margaret Minkwitz, Alex Dmitrienko, and Mani Lakshminarayanan, Council of Sections Representatives

Iksung Cho, Thomas Lin, Ram Suresh, Venkat Sethuraman, Veronica Taylor, and Thomas Keefe, Executive Committee Members

David Henry, Jose Alvir, and Debbie Panebianco, *Biopharmaceutical Report* Editors

Mani Lakshminarayanan and Venkat Sethuraman, Distance Training (Webinars)

Tammy Massie and Carmen Mak, FDA/Industry Statistics Workshop Co-Chairs

Daniel Christen, Webmaster

Russ Helms, Jim Colaianne, Matilde Sanchez, and Alka Preston, Corporate Sponsor Committee

Neal Thomas, Keith Soper, Gregory Campbell, and Stacy Lindborg, Fellows Committee

Christie Clark, Student Paper Competition

Heather Thomas, Contributed Paper Award

Yongming Qu, Poster Competition

Ed Luo and Ram Suresh, Membership Survey

As you can see, running the section successfully takes many, many people. We are always looking for volunteers. Please call anyone on the executive committee to volunteer.

held in Boston last September, and the FDA/Industry Statistics Workshop, which saw more than 700 attendees.

New Officers and Appointees

Katherine Monti, 2009 section chair-elect, would like to thank everyone for their past and continuing service and welcome the following newcomers:

Steve Wilson, Chair-elect

Jeff Maca, Program Chair-elect

Devan Mehrotra, Publications Officer

David Breiter, Council of Sections Representative

Amit Bhattacharyya, *Biopharmaceutical Report* Associate Editor

Allen Izu, Contributed Paper Award Committee Member

Patricia Stephenson and Anna Legedza, Executive Committee Members

Ivan Chan and Qian Graves, 2010 FDA/Industry Statistics Workshop Co-Chairs

Visit *www.amstat.org/sections/sbiop/comt.htm* for a complete list of officers and committee members.

How can you become active in the section? Just ask. Would you like to write an article for the *Biopharmaceutical Report*? Contact one of the editors. Would you like to participate in helping select award winners? Contact the chair of one of the awards committees. Alternatively, contact Steve Wilson, chair-elect, at *stephen.wilson@fda.hhs.gov*, as he will make most of the appointments for next year.

Future Plans

What are the section's 2010 plans? The main business of the section is well-known. JSM sessions and short courses, the FDA/Industry Statistics Workshop, and participation in the ENAR program are all enormous efforts. The distance learning events and *Biopharmaceutical Report* add to the richness of the section. The awards programs are healthy, the *Amstat News* contributions are informative, and the sponsors are dedicated … but, there is more.

Completing the new web site is at the top of the section's list. The recently completed membership survey offers us the opportunity to do what statisticians do best: mull over data. It will be interesting to see what we can learn from that effort. Finally, Monti and Anna Nevius have undertaken the task of updating the section's out-of-date operations manual. In the process, they noticed the charter needs to have the dust brushed off, too. ■

Physical and Engineering Sciences

A Message from the Chair

Russell V. Lenth, University of Iowa

I look forward to serving our section in the coming year—a year that will have our usual rich array of SPES activities, possible new projects, and challenges to increase our section's membership. I am honored to have been elected the 2010 chair, and as a minimal ambition, I hope the whole year passes without giving anyone cause to regret their vote.

I wish to thank (in alphabetical order) the following companies for their contributions to door prizes for the JSM 2009 SPES/Q&P mixer in Washington, DC:

ASA/SIAM

Bank of America

Chapman and Hall/CRC Press

Freeman

General Electric

General Foods

University of Iowa

Lubrizol

The Ohio State University

SAS

SAS Publishing

Simon Fraser University

Springer

Stata

StatGraphics

Virginia Tech

Wiley

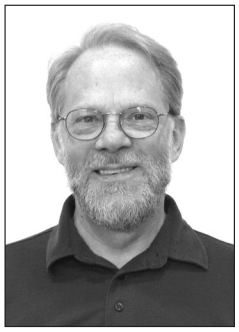
It was great fun to work with my Q&P counterpart, Mark Bailey, to gather these prizes and conduct the drawings.

Over the years (a large number—I'll decline to be more specific), I have been a member of several ASA sections and fairly active in a few. But SPES has always been what I consider my 'home' section, the one in which I identify most closely. I give its meetings, JSM sessions, and professional opportunities highest priority when deciding what to do outside of my regular job duties.

I suppose my SPES orientation is due, in part, to being a proud alumnus of New Mexico, with the proximity of Sandia and Los Alamos National Laboratories to Albuquerque. The first statistics course I ever took was taught by Bill Zimmer, who at the time was an adjunct instructor from Sandia. If it weren't for Bill, I might have turned into an algebraist or something, so I am truly thankful.

I subsequently worked as a research assistant for a while under Bill and Dick Prairie, also at Sandia. I got the chance to see a lot of physical science applications from the get-go, and engineering and science look to me like the most natural context in which statistics and applications should meet. In later professional life, it has been my privilege to work as a consultant or visitor with excellent statisticians in various national labs, most notably Dick Mensing at Lawrence Livermore and Larry Bruckner and Ray Waller at Los Alamos.

Through SPES, I have had the opportunity to work on various professional outreach activities with many wonderful people, really far too numerous to mention here. Some are academics like me; others have worked their whole lives in industry, government, or applied research; some have changed from one to the other. That, really, is what is so great about SPES membership—something you don't find in too many other ASA sections: very diverse people and types of work. The only area in which there is low diversity is in the brilliance of their accomplishments.



Lenth

SPES has some of the most talented, serious, and broad-based statistical scientists among its membership, which shows in the historically strong SPES representation among the highest ranks of ASA leadership. Hanging out with such people is incredibly inspiring.

That said, it is admittedly a bit puzzling to consider that such stellar individuals hold winning a Pillsbury Doughboy as a door prize at the JSM SPES/Q&P mixer as one of their highest aspirations. I think, though, it has to do with their being not only smart, but fun. (By the way, unlike some of my predecessors, I have won a Doughboy—nyah nyah na nyah nyah!)

I'll be more specific about some important, non-Doughboy-related reasons to be active in SPES. One biggie is meetings. We cosponsor two important meetings each year—the Spring Research Conference (SRC) and the Fall Technical Conference, both of which are wonderful opportunities to meet with a manageable number of like-minded individuals and really exchange ideas. We also always have a strong selection of invited and contributed JSM sessions on topics such as reliability, manufacturing, and experimental design. There's also the *Technometrics* session, which isn't officially a SPES session, but includes many of the same people and areas of research. Plus, of course, there is the SPES/Q&P mixer, where there is great food, drink, and conversation to be had, along with many, many door prizes ranging from books to software to clothing to toys (and not just the one).

Another prominent SPES strength is its work to champion students. We give scholarships to help students attend and participate in the SRC and JSM roundtable luncheons. We give a number of awards for paper and poster presentations at meetings. And we have an active industrial speakers program, whereby we provide contacts with great speakers and travel funding to take those speakers to campuses so they can tell students about their work. When these speakers have come to my department, I have seen our students' eyes really light up; this is a great program.

I want to say a little bit about where we should build in the future. Sometimes it seems that with the expanding number of ASA sections, it is easy for us to get lost or clouded over in the shuffle. For one reason or another, we are experiencing some decline in membership. Perhaps, these days, "physical and engineering sciences" doesn't sound as modern or sexy as the names of other sections. And if you look at our members, we are broader than that. We have had a terrific partnership with Q&P for some time; should we also consider offering joint memberships with other sections that align closely with ours?

Another item to consider is our section name. My wife teases me about being a "spez" guy; somehow, this projects a plastic pocket protector sort of image. It's also a little hard to figure out where we fit alphabetically in drop-down lists on JSM abstract submission forms. Should we consider changing our section name—or abbreviation—to something more descriptive of our broad and talented membership? [Nanotechnology, Engineering, Reliability, and Design (NERD)?] No? I invite your suggestions on these and other issues; just send me an email at *russell-lenth@uiowa.edu*. ■

Statistics and the Environment

Nominations Sought for Two Awards

The Section on Statistics and the Environment (ENVR) is seeking nominations for the ENVR Distinguished Achievement Award and the new ENVR Young Investigator Award. Both awards are given in recognition of outstanding contributions to the development of methods, issues, concepts, applications, and initiatives of environmental statistics. The Young Investigators Award is meant to encourage and recognize younger members of the environmental statistics community.

We use a broad definition of environmental statistics—from theoretical/foundational through applications and policy—and seek to recognize the full range of activities of academic, government, and industrial statisticians and scientists engaged in statistics and the environment. Environmental statistics is interdisciplinary, and outstanding contributions may occur outside of traditional niches defined by disciplines.

To be eligible for a distinguished achievement award, nominees must have made distinguished contributions to environmental statistics; joined ENVR at least three years prior to June 1, 2009; and not have received the award in a previous year (see *www.amstat-online.org/sections/envr/ssedaap.html*).

Criteria for the Young Investigators Award include having made distinguished contributions to environmental statistics; being a current member of ENVR; not being a recipient of the ENVR Distinguished Achievement Award from a previous year; and not having reached his or her 41st birthday during the calendar year of the award. (In the special case of an individual who has received his or her terminal degree in statistics fewer than 12 years prior to the nomination deadline, a nominee will be eligible who has not yet reached his or her 46th birthday during the calendar year of the award.)

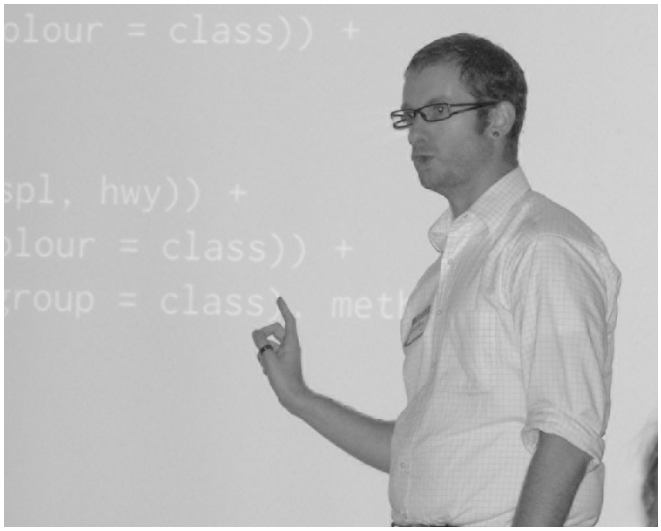
For both awards, the committee considers only those members for whom nominations are submitted. Committee members do not offer nominations, but encourage members to make a thorough search for good candidates.

Nomination materials should consist of a nomination letter featuring the nominee's contributions to environmental statistics, a CV of five or fewer pages for the nominee, up to three supporting letters, and a clear statement for which of the two awards the nominee should be considered. If being considered for the Young Investigators Award, submit the birth date of the nominee. The committee will use the "Jonathanian" method for calculating the age of the nominee.

Nominations must be received by March 15 as a PDF document (preferred) or Word file. If submitted as hard copy, send the original and five copies. Submit nominations to Stephen L. Rathbun at *rathbun@uga.edu* or Department of Epidemiology and Biostatistics, 132B, Coverdell Center, University of Georgia, Athens, GA 30602.

The awards committee will make the selection, and successful nominees will receive their awards at the ENVR business meeting and reception during the Joint Statistical Meetings in Vancouver in August of 2010. Questions regarding the award should be addressed to Rathbun at *rathbun@uga.edu*. ■

Southern California Hosts Fall Kickoff



Hadley Wickham demonstrates R software graphics package ggplot2.

The Southern California Chapter held its annual fall kickoff November 7 at the Institute of Pure and Applied Mathematics of the University of California, Los Angeles (UCLA). This year's event was co-hosted by the Los Angeles UseR's Group and well attended by both groups. Approximately 50 people participated.

Speaker Hadley Wickham from the department of statistics at Rice University presented two interactive lecture sessions. In the first, practical applications of the R software graphics package ggplot2 (written by Wickham) were demonstrated. In the second, the audience was led through a conceptual activity illustrating the "grammar of graphics," which underlies ggplot2.

In the afternoon, Tiffany Himmel, a student at UCLA, gave a talk titled "Analysis of Hormone and Protein Levels in Breast Duct Lavage," and Victor Louie, also a UCLA student, presented "Recent Trends in Methane: A Spacio-Temporal Analysis." ■

For more information about these events, visit *www.amstat.org/dateline.* Announcements are accepted from educational and not-for-profit organizations only. Commercial enterprises should contact the ASA Advertising Department at *advertise@amstat.org*.

* Indicates events sponsored by the American Statistical Association or one of its sections, chapters, or committees

›› Indicates events posted since the previous issue

2010

January

15–16—University of Florida Twelfth Annual Winter Workshop: Categorical Data Analysis, Gainesville, Florida
This workshop will focus on recent developments in methodology for categorical data analysis, including high-dimensional data, Bayesian inference, and clustering and missing data, as well as applications to rapidly developing disciplines such as statistical genetics. For more information, visit *www.stat.ufl.edu* or contact Robyn Crawford, P.O. Box 118545, 103 Griffin-Floyd Hall, Gainesville, FL 32611; (352) 392-1941; *robyn@stat.ufl.edu.*

27–29—2010 Bayesian Biostatistics Conference, Houston, Texas
Current and prospective users of Bayesian biostatistics are invited to join experts in the field for a three-day conference that includes short courses and invited presentations. For more information, visit *biostatistics.mdanderson.org/BBC2010* or contact Lydia Davis, 1515 Holcombe Blvd., Unit 1409, Houston, TX 77030; (713) 794-4142; *lbdavis@mdanderson.org*.

February

1–4—Statistical Modelling and Inference Conference to Celebrate Murray Aitkin's 70th Birthday, Brisbane, Australia
The purpose of this conference is to discuss the current and future state of statistical modeling and inference. It is also to celebrate Murray's involvement in these fields. All contributions are welcome, as either read papers, posters, or short presentations in the final open session. Preference may be given to historical surveys of the development of modeling and/or inference; surveys of current methods and their advantages and limitations; reports of current work in these fields; predictions of future trends (with credibility bands); and discussion of foundational issues in likelihood, Bayes, frequentist, and survey sampling inference. Contributions related to Murray's involvement in these fields are also welcome. For details, visit *www.aitkinconference.scitech.qut.edu.au* or contact Clair Alston, GPO Box 2434, Brisbane, International 4001, Australia; +61 731381287; *c.alston@qut.edu.au*.

16–19—SIMMAC International Symposium on Mathematical Methods Applied to the Sciences, San Jose, Costa Rica
SIMMAC will cover data analysis, multivariate statistics, clustering and classification, probability, stochastic processes, financial mathematics, stochastic control, optimization, operations research, approximation, numerical analysis, dynamic systems, differential equations, modeling, biomathematics, and applications. For more information, visit *www.cimpa.ucr.ac.cr/simmac.html* or contact Javier Trejos, C.U. Rodrigo Facio, San Jose, International 02060, Costa Rica; 00.506.2511-5889; *simmac.cimpa@ucr.ac.cr*.

››23–24—Evolution of Clinical Data Management, Washington, DC
This conference will deliver practical ideas and solutions to help manufacturers and CROs improve their data management processes and increase efficiency and time to market. For more information, visit *www.arena-international.com/pharma/datamanagementusa* or contact Melissa Fuentes, 55-57 North Wharf Road, London, W2 1LA, UK; +44 (0) 20 7936 6677; *melissafuentes@arena-international.com*.

March

17–19—IAENG International Conference on Data Mining and Applications 2010, Hong Kong, China
This conference will be held under the International MultiConference of Engineers and Computer Scientists 2010. The IMECS 2010 is organized by the International Association of Engineers (IAENG) and serves as a good platform for researchers. For more information, visit *www.iaeng.org/IMECS2010/ICDMA2010.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*.

17–20—Conference on Frontier of Statistical Decisionmaking and Bayesian Analysis
This conference consists of plenary, invited, and poster sessions. Plenary speakers include Donald Berry, Lawrence Brown, Persi Diaconis, Stephen Fienberg, and Alan Gelfand. The conference will provide an overview of the past, present, and future developments of statistical decisionmaking and Bayesian analysis. Prior to the conference, short courses on various statistical topics will be offered. For more information, visit *http://bergerconference2010.utsa.edu* or contact Keying Ye at *Keying.Ye@utsa.edu*.

22—A Celebration of the Contributions of Donald A. Berry, New Orleans, Louisiana
In honor of Donald A. Berry and his contributions to the statistics and health-related research communities, two invited sessions and a dinner will be held during ENAR 2010. Invited speakers include Jim Berger, Janet Wittes, Steven Goodman, Giovanni Parmigiani, Michael Krams, Telba Irony, and Dalene Stangl. The sessions will overview Berry's contributions and discuss the future of clinical trials. For more information or tickets for the dinner, contact Dalene Stangl, 212 Old Chemistry, Box 90251, Durham, NC 27708; (919) 684-4263; *dalene@stat.duke.edu*.

23–26—DAGStat2010: Statistics Under One Umbrella, Dortmund, Germany
DAGStat is a network of scientific and professional organizations that develop and promote statistical theory and methodology. The aim of the working group

is to offer a panel for shared activities and public relations to reach a stronger cognition of statistics. Lectures will cover aspects of theoretical and applied statistics. For more information, visit *www.statistik.tu-dortmund.de/DAGStat2010/en* or contact Jörg Rahnenführer, Vogelpothsweg 87, Dortmund, International 44227, Germany; +49 231 755 3121; *rahnenfuehrer@statistik.tu-dortmund.de*.

25–26—Conference on Resampling Methods and High-Dimensional Data, College Station, Texas
This conference aims to bring together researchers working in resampling methods and high-dimensional data. It will provide a unique platform for taking stock of recent developments in each area and exploring the limits of resampling methods in a high-dimensional setting. Keynote speakers are Peter Bickel, Jianqing Fan, Peter Hall, and Bin Yu. For more information, visit *www.stat.tamu.edu/Spring-Conf-2010* or contact Soumendra Lahiri, Dept. of Statistics, Texas A&M University, College Station, TX 77845; (979) 845-3141; *snlahiri@stat.tamu.edu*.

April

7–9—MAF2010 - Mathematical and Statistical Methods for Actuarial Sciences and Finance, Ravello, Italy
The aim of this conference is to provide new theoretical and methodological results and significant applications in actuarial sciences and finance by the capabilities of the interdisciplinary mathematical and statistical approach. The conference will cover a variety of subjects in actuarial science and financial fields. Open to academics and professionals, the conference is designed to promote the cooperation between theoreticians and practitioners. For more information, visit *maf2010.unisa.it* or contact Marcella Niglio, Via Ponte Don Melillo, Fisciano, International 84084, Italy; *maf2010@unisa.it*.

25–27—22nd Annual Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, Kansas
This conference will bring together statisticians from academia, industry, and government to discuss ideas and advances in the application of statistics to solve agricultural research problems. A keynote speaker, workshop, and series of contributed papers and poster presentations will be included. For more information, visit *www.ksu.edu/stats/agstat.conference* or contact John Boyer, Department of Statistics, Dickens Hall, Kansas State University, Manhattan, KS 66506; (785) 532-0518; *jboyer@ksu.edu*.

29–5/1—2010 SIAM International Conference on Data Mining, Columbus, Ohio
This conference will provide a venue for researchers to present their work in a peer-reviewed forum. It also provides an ideal setting for graduate students and others new to the field to learn about cutting-edge research by hearing outstanding invited speakers and attending tutorials (included with conference registration). A set of focused workshops also will be held on the last day of the conference. The proceedings of the conference will be published in archival form and made available on the SIAM web site. For more information, visit *www.siam.org/meetings/sdm10* or contact Amol Ghoting, 1101 Kitchawan Road, RT 134, Yorktown Hts., NY 10598; (914) 945-2193; *aghoting@us.ibm.com*.

May

››1— Workshop on Link Analysis in Adversarial Data Mining, Columbus, Ohio
Papers are being accepted for this workshop, which will be held with the 2010 SIAM Data Mining Conference. Submissions should be sent via email to *abadia@louisville.edu*. See *www.siam.org/meetings/sdm10/submissions.php* for submission details. For more information about the workshop, visit *date.cecsresearch.org/workshop.htm* or contact Antonio Badia, J.B. Speed 112 CECS Department, Louisville, KY 40292; (502) 852-0478; *abadia@louisville.edu*.

19–22—Conference on Nonparametric Statistics and Statistical Learning, Columbus, Ohio
This conference will bring together researchers in nonparametrics and statistical learning from academia, industry, and government in an atmosphere focused on the development of both statistical theory and methods. The areas are broadly defined, with nonparametrics encompassing distribution-free statistics, rank-based and robust statistics, Bayesian nonparametric methods, permutation-based methods, nonparametric regression, and density estimation. Statistical learning includes a range of methods focused on the general goals of discovery, classification, and prediction. Six prominent researchers will present plenary talks relating to both fields. There also will be eight contributed paper sessions and two contributed poster sessions where junior investigators and graduate students are expected to participate. For more information, visit *www.stat.osu.edu/~nssl2010* or contact Steven MacEachern, Department of Statistics, The Ohio State University, 1958 Neil Ave., Cockins Hall, Rm. 404, Columbus, OH 43210-1247; (614) 292-5843; *snm@stat.osu.edu*.

››20–22—Statistical Analysis of Neural Data (SAND5), Pittsburgh, Pennsylvania
This workshop series is concerned with analysis methods for neural signals from sources such as EEG, fMRI, MEG, 2-Photon, and extra-cellular recordings. It aims to define important problems in neuronal data analysis and useful strategies for attacking them, foster communication between experimental neuroscientists and those trained in statistical and computational methods, and encourage young researchers to present their work and interact with senior colleagues. Travel funds are expected to be available. Anyone interested in presenting their work as a talk should submit an abstract by February 28. In addition, all participants are encouraged to present posters. For details, visit *sand.stat.cmu.edu* or contact Rob Kass, Department of Statistics, Carnegie Mellon University, Pittsburgh, PA 15213; (412) 268-8723; *kass@stat.cmu.edu*.

23–26—38th Annual Meeting of the Statistical Society of Canada, Québec City, Québec
This conference will bring together academic, government, and industrial researchers as well as users of statistics and probability. Featured will be workshops and invited and contributed sessions on all areas of statistics and probability. About 450 statisticians are expected to participate. For details, contact Thierry Duchesne, Université Laval, Département de mathématiques et de statistique, Pavillon Vachon, Québec, Quebec G1K 7P4, Canada; (418) 656-2131, Ext. 5077; *thierry.duchesne@mat.ulaval.ca*.

25–27—Joint Research Conference on Statistics in Quality, Industry, and Technology, Gaithersburg, Maryland
The Quality and Productivity Research Conference and the Spring Research Conference on Statistics in Industry and Technology will be held jointly at the National Institute of Standards and

Technology (NIST). The goal of the conference is to stimulate interdisciplinary research among statisticians, engineers, and physical scientists in quality and productivity, industrial needs, and the physical sciences. The conference will feature presentations on statistical issues and research approaches drawn from collaborative research. For more information, contact Will Guthrie, 100 Bureau Drive, Stop 8980, Gaithersburg, MD 20899-8980; (301) 975-2854; *will.guthrie@nist.gov*.

June

››3–4—Statistical Science: Making a Difference, Madison, Wisconsin
A series of events are planned to celebrate the 50th anniversary of the founding of the department of statistics and its achievements in making a difference in statistics and the sciences through theory/methods and applications/practice. The main event will highlight major advances and emerging topics in statistical science during the last 25 years. For more information, visit *www.stat.wisc.edu* or contact Denise Roder, 1300 University Ave., MSC 1220, Madison, WI 53706; (608) 262-2937; *50th@stat.wisc.edu*.

5–8—IWMS 2010 - 19th International Workshop on Matrices and Statistics, Shanghai, China
This conference will stimulate research and foster the interaction of researchers in the interface between statistics and matrix theory. There will be invited and contributed papers. Potential participants should visit *www1.shfc.edu.cn/iwms/index.asp* for online registration and submission of abstracts. For details, visit *www1.shfc.edu.cn/iwms/index.asp* or contact Yonghui Liu, Shanghai Finance University, Shanghai, International 201209, China; *IWMS2010@shfc.edu.cn*.

››10–12—2010 International Symposium on Financial Engineering and Risk Management (FERM2010), Taipei, Taiwan
FERM2010 will allow academic researchers and industry practitioners to exchange state-of-the-art knowledge and discoveries in financial engineering and risk management, as well as discuss the recent financial crisis, research interests, and industry trends. Keynote speakers will include Tim Bollerslev, Jay Dweck, and Harrison Hong. In addition, 15 invited sessions, 15 contributed sessions, and a poster session are planned. For more information, visit *www.fin.ntu.edu.tw/~ferm2010* or contact Program Committee, Center for Research in Econometric Theory and Applications, National Taiwan University, Taipei, International 106, Taiwan; 886-2-33661072; *ferm2010.prog@gmail.com*.

››12–19—Statistical and Machine Learning Methods in Computational Biology, Lipari, Italy
Lectures will focus on new statistical challenges posed by deep sequencing techniques to inference and analysis of network structure that take into account the scale of data available. A series of tutorials also will be offered from introductory topics to statistics to probabilistic and machine learning methods. For more information, visit *lipari.cs.unict.it/LipariSchool/Bio* or contact Raffaele Giancarlo, Dipartimento di Matematica, Via Archirafi 34, Palermo, International 90123, Italy; +39-091-238-91067; *raffaele@math.unipa.it*.

››14–16—Pacific Coast Statisticians and Pharmacometricians Innovation Conference, San Luis Obispo, California
This conference will provide statisticians and pharmacometricians a forum to share pertinent information concerning the application of these disciplines to the pharmaceutical and biotechnology industries. Keynote speakers are Joga Gobburu and Stephen Senn. The program will include short courses and presentations. For details, contact Brian Smith, One Amgen Center Drive, MS 38-3-B, Thousand Oaks, CA 91360; (805) 447-1378; *brismith@amgen.com*.

››14–17—23rd Nordic Conference on Mathematical Statistics (NORDSTAT), Voss, Norway
NORDSTAT is a biennial meeting for statisticians and probabilists. For more information, visit *www.nordstat2010.org/index.php* or contact Inger Lise Ravnanger, Torgalmenning 1a, Bergen, International N-5808, Norway; +47 55553655; *mail@kongress.no*.

16–18—45th Scientific Meeting of the Italian Statistical Society, Padua, Italy
The 2010 conference will include plenary, specialized, contributed, and poster sessions. These can be in any area of interest relevant to theoretical and applied statistics. For details, visit *www.sis-statistica.it/meetings/index.php/sis2010/sis2010* or contact Patrizia Piacentini, Department of Statistical Sciences, via C. Battisti 241, Padova, International I-35121, Italy; *segrorg@stat.unipd.it*.

››16–18—Sparse Structures: Statistical Theory and Practice, Bristol, United Kingdom
The aim of this workshop is to bring together theory and practice in modeling high-dimensional data to come to a better understanding of the possibilities for finding robust rigorously founded methods. Space is limited. Abstracts for contributed talks are due February 15; abstracts for posters are due March 15. Those who want to attend should email *sustain-sparsity@bristol.ac.uk* by March 15. All abstracts should also be emailed to *sustain-sparsity@bristol.ac.uk*. For more information, visit *www.sustain.bris.ac.uk/ws-sparsity* or contact Azita Ghassemi, Department of Mathematics, Bristol, International BS8 1TW, UK.

20–23—ISF2010 - 30th International Symposium on Forecasting, San Diego, California
This conference—attracting the world's leading forecasting researchers, practitioners, and students—will include keynote speaker presentations, academic sessions, workshops, and social programs. For details, visit *www.forecasters.org* or contact Pam Stroud, 53 Tesla Ave., Medford, MA 02155; (509) 357-5530; *isf@forecasters.org*.

28–7/2—ICORS 2010, Prague, Czech Republic
The International Conference on Robust Statistics aims to be a forum for the development and application of robust statistical methods. It is an opportunity to meet, exchange knowledge, and build scientific contacts with others interested in the subject. For more information, visit *icors2010.karlin.mff.cuni.cz* or contact Jana Jureckova, Department of Statistics, Sokolovska 83, Prague 8, International CZ-186 75, Czech Republic; *icors2010@karlin.mff.cuni.cz*.

29–7/1—International Conference on Probability Distributions and Related Topics in Conjunction with NZSA Conference, Palmerston North, New Zealand
This international conference is devoted to all aspects of distribution theory and its applications, including discrete, univariate, and multivariate continuous distributions; copulas; extreme values; skewed distributions; conditionally specified distributions; and life distributions in engineering and survival analysis. For more information, visit *http://nzsa_cdl_2010.massey.ac.nz* or contact Narayanaswamy Balakrishnan, Department of Mathematics and Statistics, Hamilton, International L8S 4K1, Canada; (905) 525-9140, Ext. 23420; *bala@mcmaster.ca*.

››29–7/9—International Statistical Ecology Conference 2010, Canterbury, United Kingdom
In addition to invited and contributed speaker sessions, this conference will include a series of workshops. The deadline for bursaries application (developing countries) is March 1; the deadline for early (reduced-cost) registration is March 31. For details, visit *www.ncse.org.uk/isec2010* or contact Alexa Laurence, University of Kent, Canterbury, International CT2 7NZ, UK; 01227 827253; *a.f.laurence@kent.ac.uk*.

30–7/2—2010 International Conference of Computational Statistics and Data Engineering, London, United Kingdom
For details, visit *www.iaeng.org/WCE2010/ICCSDE2010.html* or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International, China; (852) 3169-3427; *wce@iaeng.org*.

July

4–9—IWSM 2010, Glasgow, United Kingdom
The 25th International Workshop on Statistical Modeling (IWSM 2010) will be hosted by the University of Glasgow in Scotland. For more information, visit or contact Claire Ferguson, Department of Statistics, 15 University Gardens, Glasgow, International G12 8QW, Scotland; 0141 330 5023; *c.ferguson@stats.gla.ac.uk*.

***5–9—ISBIS-2010 (International Symposium on Business and Industrial Statistics), Slovenia**
The key themes of this conference are industrial applications of statistical image analysis, future directions for handling large and complex data sets, financial services, health services, quality and productivity improvement, and decisionmaking in business and industry. For more information, visit *www.action-m.com/isbis2010* or contact Milena Zeithamlova, Vrsovicka 68 101 00, Prague, International 10, Czech Republic; +420 267 312 333; *milena@action-m.com*.

››6–8—LASR 2010: High-Throughput Sequencing, Proteins, and Statistics, Leeds, United Kingdom
This workshop will focus on developments at the interface of statistical methodology and bioinformatics. For more information, visit *www.maths.leeds.ac.uk/lasr2010* or contact Jochen Voss, Department of Statistics, University of Leeds, Leeds, International LS2 9JT, UK; *workshop@maths.leeds.ac.uk*.

12–23—SAMSI: 2010 Summer Program on Semiparametric Bayesian Inference: Applications in Pharmacokinetics and Pharmacodynamics, Research Triangle Park, North Carolina
The aims of the program and workshop are to identify the critical new developments of inference methods for pharmacokinetics (PK) and pharmacodynamics (PD) data, determine open challenges, and establish inference for PK and PD as an important motivating application area of nonparametric Bayes. For more information, visit *www.samsi.info/programs/2010bayes-summer-program.shtml* or contact Jamie Nunnelly, P.O. Box 14006, RTP, NC 27709; (919) 685-9350; *nunnelly@niss.org*.

27–31—LinStat 2010, Tomar, Portugal
The aim of this conference is to bring together researchers sharing an interest in a variety of aspects of statistics and its applications to discuss current developments. There will be plenary talks and sessions with contributed talks, as well as a special session with talks by graduate students. For more information, visit *www.linstat2010.*

ipt.pt or contact Francisco Carvalho, Estrada da Serra - Quinta do Contador, Tomar, International 2300-313, Portugal; +351249328100; *fpcarvalho@ipt.pt*.

***31–8/5—2010 Joint Statistical Meetings, Vancouver, British Columbia, Canada**
JSM is the largest gathering of statisticians held in North America. It is held jointly with the American Statistical Association, the International Biometric Society (ENAR and WNAR), the Institute of Mathematical Statistics, the Statistical Society of Canada, the International Indian Statistical Association, and the International Chinese Statistical Association. Attended by more than 5,500 people, activities include oral presentations, panel sessions, poster presentations, continuing education courses, an exhibit hall, a placement service, society and section business meetings, committee meetings, social activities, and networking opportunities. For more information, visit *www.amstat.org/meetings* or contact ASA Meetings Department, 732 North Washington St., Alexandria, VA 22314; (888) 231-3473; *jsm@amstat.org*.

August

5–7—16th ISSAT International Conference on Reliability and Quality in Design, Washington, DC
Calling for papers, due February 15, 2010. For more information, visit *www.issatconferences.org* or contact Conference Secretary, P.O. Box 1504, Piscataway, NJ 08855; *rqd@issatconferences.org*.

22–27—COMPSTAT 2010, Paris, France
This conference will cover the development and implementation of new statistical ideas, user experiences, and software evaluation. The program should appeal to software developers and anyone working in statistics who uses computers, whether at a university, company, government agency, or research institute. For more information, visit *www.compstat2010.fr* or contact Gilbert Saporta, 292 rue Saint Martin, Paris, International 75003, France; +33140272268; *gilbert.saporta@cnam.fr*.

29–9/1—SAMSI: 2010–11 Program on Complex Networks, Research Triangle Park, North Carolina
This program is built around network modeling and interference, flows on networks, network models for disease transmission, and dynamics of networks. For more information, visit *www.samsi.info/workshops/index.shtml* or contact Terri Nida, 19 TW Alexander Drive, RTP, NC 27709; (919) 685-9350; *info@samsi.info*.

30–9/3—Prague Stochastics 2010, Prague, Czech Republic
Prague Stochastics 2010 is next in a series of international conferences on stochastics organized in Prague since 1956. The scientific program will be aimed at covering a wide range of stochastics, with special emphasis on the topics of this lively field that have been pursued in Prague. For more information, visit *www.utia.cas.cz/pragstoch2010* or contact Lucie Fajfrova, Pod Vodarenskou vezi 4, Prague

8, International 18208, Czech Republic; *pragstoch@utia.cas.cz*.

September

12–15—SAMSI: 2010–11 Program on Analysis of Object Oriented Data Opening Workshop, Research Triangle Park, North Carolina
Modern science is generating a need to understand and statistically analyze populations of increasingly complex types. Analysis of object oriented data (AOOD) is aimed at encompassing an array of such methods. For more information, visit *www.samsi.info/programs/2010aoodprogram.shtml* or contact Terri Nida, 19 TW Alexander Drive, RTP, NC 27709; (919) 685-9350; *info@samsi.info*.

December

6–10—Australian Statistical Conference 2010, Fremantle, West Australia
Delegates from all areas of work in statistics will be encouraged to communicate their knowledge and expertise and join world-class Australian and international statisticians to discuss new work. The theme for the 2010 conference, "Statistics in the West: Understanding Our World," provides opportunities for presentations on a range of topics. For more information, visit *www.statsoc.org.au* or contact Promaco Conventions, Unit 10 22 Parry Ave., Bateman, International 6150, Australia; +61 8 9332 2900; *promaco@promaco.com.au*.

2011

January

***5–7—2011 Living to 100 Symposium, Orlando, Florida**
This conference, held by the Society of Actuaries, will include thought leaders from around the world who will share ideas and knowledge about aging, changes in survival rates and their impact on society, and observed and projected increases in aging populations. For more information, visit *http://livingto100.soa.org* or contact Jan Schuh, 475 N. Martingale Road, Suite 600, Schaumburg, FL 60173; *jschuh@soa.org*.

››5–7—Fourth International IMS/ISBA Joint Meeting, Park City, Utah
A central theme of this conference is Markov chain Monte Carlo and related methods and applications. The conference also will feature plenary speakers Jeff Rosenthal, Nicky Best, and Michael Newton and six invited sessions. Nightly poster sessions will offer substantial opportunity for informal learning and interaction. Limited financial support for junior investigators is anticipated. The meeting will be accompanied by a satellite workshop on adaptive MCMC methods, intended to provide a snapshot of the methodological, practical, and theoretical aspects of an emerging group of methods that attempt to automatically optimize their performance for a given task. For details, visit *madison.byu.edu/mcmski/index.html* or contact Brad Carlin, MMC 303, Division of Biostatistics, School of Public Health, 420 Delaware St. S.E., Minneapolis, MN 55455; (612) 624-6646; *brad@biostat.umn.edu*.

May

10–13—International Conference on Design of Experiments (ICODOE-2011), Memphis, Tennessee
The goal of this conference is to bring together leading researchers in design and analysis of experiments, including combinatorial design, and practitioners in the pharmaceutical, chemometrics, physical, biological, medical, social, psychological, economic, engineering, and manufacturing sciences. The conference will focus on emerging areas of research in experimental design and novel innovations in traditional areas. For more information, visit *www.msci.memphis.edu* or contact Manohar Aggarwal, 373 Dunn Hall, University of Memphis, Memphis, TN 38152; (901) 678-3756; *maggarwl@memphis.edu*.

June

››26–29—ICSA 2011 Applied Statistics Symposium, New York, New York
For more information, contact Wei Zhang, 900 Ridgebury Road, Ridgefield, CT 06877; (203) 791-6684; *wei.zhang@boehringer-ingelheim.com*. ■

Professional Opportunity listings may not exceed 65 words, plus equal opportunity information. Ads must be received by the first of the preceding month to ensure appearance in the next issue (i.e., September 1 for the October issue). Ads received after the deadline will be held until the following issue.

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 web site (*www.amstat.org*). Vacancy listings will appear on the web site 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. A URL link may be included in display ads in the online version of *Amstat News* for an additional $100. Display advertising rates are at *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 only 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 web site at *www.amstat.org/jobweb.*

Connecticut

■ PhD Biostatistician. Connecticut Children's Medical Center, jointly with University of Connecticut Health Center, seeks PhD-level scientist to provide biostatistical expertise to support pediatric research in clinical and academic settings. Requirements: knowledge of advanced biostatistical methods, statistical software, study design and research protocols, clinical trials; strong interpersonal and communication skills; ability to work independently and collaboratively. For more information or to apply, visit *www.connecticutchildrens.com.* EOE.

Florida

■ Statistician III. The Mayo Clinic in Jacksonville, Florida, seeks a consulting statistician with a master's degree in statistics/biostatistics; 6+ years experience in medical research; ability to perform as lead statistician on a wide variety of research projects; excellent communication skills. Complete medical/dental benefits package. Relocation assistance

The Southwest Oncology Group (SWOG), in partnership with the **Fred Hutchinson Cancer Research Center (FHCRC)**, is searching for a new Group Statistician to direct the SWOG Statistical Center in Seattle, Washington. The Group Statistician would be the Principal Investigator of the SWOG grant at the FHCRC. The position will be at the rank of Full Member (equivalent, respectively, to Professor at a university). The Southwest Oncology Group is a national clinical research group sponsored by the National Cancer Institute *http://www.cancer.gov* , with its Central Office h*ttp://www.calgb.org/Public/about/centraloffice_role.php* headquartered at the University of Michigan, and its Operations Office in San Antonio. *http://www.ucbicago.edu/* SWOG is a national network comprised of university medical centers, community hospitals and oncology specialists who collaborate in clinical research studies aimed at reducing the morbidity and mortality from cancer, relating the biological characteristics of cancer to clinical outcomes and developing new strategies for the early detection and prevention of cancer. The Group Statistician directs the SWOG Statistical Center located at the Fred Hutchinson Cancer Research Center (FHCRC) and Cancer Research and Biostatistics (CRAB) in Seattle, Washington. The Statistical Center has over 100 employees, including 20 PhD and MS statisticians, and is responsible for managing the statistical, data management, and information systems resources of the Group. The Fred Hutchinson Cancer Research Center is a world-renowned research institution with large and active efforts in basic biological sciences, human biology, clinical research, epidemiology, biostatistics and cancer prevention research. Its mission is the elimination of cancer as a cause of human suffering and death. The Center conducts research of the highest standards to improve prevention and treatment of cancer and related diseases. SWOG and the FHCRC are seeking a senior biostatistician with extensive experience in the design and conduct of cancer clinical trials. The successful applicant will have a PhD or equivalent degree in statistics or biostatistics with an outstanding research record and extensive management and administrative experience.

The FHCRC is an equal opportunity employer. The institution is building culturally diverse faculty and strongly encourages applications from female and minority candidates.

Review of applications will begin March 1, 2010, and will continue until the position is filled. Please send applications including curriculum vitae, a letter describing research interests, and the names of four references to:

Catherine Tangen, DrPH, Search Committee Chair • Division of Public Health Sciences M3-C102, Fred Hutchinson Cancer Research Center • 1100 Fairview Avenue North, Box 19024, Seattle, WA 98109-1024

available. Visit *www.mayoclinic.org/jobs-jax* and search for posting #7863. EOE. Reference/background checks and drug testing required of all new hires. Mayo Clinic is an EOE.

Illinois

■ The department of health studies at the University of Chicago seeks two research associate–track statisticians for consulting and collaborative research. A doctoral degree in statistics, biostatistics, or related field is required. Expertise in pharmacogenomics, DNA microarray analysis, or statistical genetics is desirable for one of the positions. A cover letter, CV, and contact information for three references are required. To apply, please visit *tinyurl.com/ygd3vxk*. University of Chicago is an AA/EOE.

■ Assistant Professor. Responsibilities include collaboration with multidisciplinary clinical research groups and some teaching. Doctorate in statistics/biostatistics required. Experience with clinical trials and/or longitudinal data analysis is required; strong communication and computer skills required; missing data experience a plus. Cover letter and CV to Elizabeth Avery, Dept. of Preventive Medicine, Rush University Medical Center, 1700 W. Van Buren, Suite 470, Chicago, IL 60612, *Elizabeth_F_Avery@rush.edu*. Rush University Medical Center is an EOE.

Indiana

■ Up to three faculty positions (level and track commensurate with experience/qualifications) in expanding group, division of biostatistics/IU School of Medicine. Exciting collaborative research opportunities, own statistical research, and teaching. PhD biostatistics, statistics or related field required; practical experience preferred. Excellent communication skills required. Competitive salary/excellent benefits. Send CV, 3 refs: Search Committee, Biostatistics, 410 West Tenth St., Suite 3000, Indianapolis, IN 46202-3002. Indiana University is an EEO/AA employer, M/F/D.

■ Purdue University Department of Statistics faculty position screening starts 12/01/2009, until position is filled. Salary, rank, benefits commensurate with

qualifications. PhD in statistics or related field. For further information, see *www.stat.purdue.edu/hiring.* Purdue is an Equal Opportunity/Equal Access/Affirmative Action employer fully committed to achieving a diverse work force.

Iowa

■ Grinnell College. 1-year position, department of mathematics and statistics. Assistant professor (PhD) preferred; instructor (ABD) possible. Teaching schedule is five courses over two semesters. Complete description and application instructions: *www.grinnell.edu/offices/dean/facpos/facposopen*. For full consideration, all application materials should be received by February 1, 2010. Online application: *jobs.grinnell.edu*. Upload letter of application, CV, graduate and undergraduate transcripts (copies acceptable), and email addresses for three references. Grinnell College is an AA/EOE.

Maryland

■ Seeking PhD/experienced master's statisticians for Center for Devices and Radiological Health, FDA, HHS in

Georgetown University Medical Center

FACULTY BIOSTATISTICIAN CLINICAL TRIALS

DEPARTMENT OF BIOSTATISTICS, BIOINFORMATICS, AND BIOMATHEMATICS

The Department of Biostatistics, Bioinformatics and Biomathematics invites applications for a position as a tenure-track assistant or associate professor of Biostatistics. Applicants should have a Ph.D. in Biostatistics or Statistics, expertise in the application of statistical methodology to clinical trials and at least 3 years experience in this field. The requirements for this position are a strong research background, excellent communication skills and an interest in teaching. The successful candidate will collaborate with physicians and scientists from the Lombardi Comprehensive Cancer Center, conduct independent biostatistical research, and teach in our Master's degree program.

Interested individuals should send a letter of application, curriculum vitae, and the names and addresses (including e-mail address) of three references to:

Françoise Seillier-Moiseiwitsch, Chair
Department of Biostatistics, Bioinformatics, and Biomathematics
Georgetown University Medical Center
Building D, Suite 180
4000 Reservoir Road
Washington, DC 20057-1484
or *lrs8@georgetown.edu*

THIS POSITION HAS AN IMMEDIATE STARTING DATE.
APPLICATIONS WILL BE REVIEWED UNTIL THE POSITION IS FILLED.

CELEBRATE CENTENNIAL
KENT STATE UNIVERSITY
1910·2010

Kent State University has established a new College of Public Health and invites applications for a tenure-track faculty position (open rank) in the area of Biostatistics. The successful applicant will be expected to teach and to maintain a productive research record through active collaborative research and/or grant-supported methodological research.

Qualifications include an earned doctorate in Biostatistics; publication record; extramural funding; and teaching experience.

Applicant must apply online at: http://jobs.kent.edu/applicants/Central?quickFind=18

In addition to submitting an academic data form online, please send letter of interest, C.V., and the names/contact information for three references, to:

Dr. Sonia Alemagno
College of Public Health, Kent State University
Schwartz Center, Room 208 P.O., Box 5190 Kent, OH 44242-0001

Kent State University is an EEO/AA employer.

Silver Spring, Maryland. Grapple with rich array of statistical issues in clinical trials for new technologies, from LASIK and artificial hearts to genetic tests and robotic surgery. Review statistical design/analysis issues in medical devices from invention to postmarket. E-mail CV to Greg Campbell, *greg.campbell@fda.hhs.gov*. Identify residency/visa status in application. FDA is a smoke-free environment and an Equal Opportunity Employer.

Massachusetts

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

■ MS Biostatistician. Collaborate with medical and scientific researchers in design, analysis, and publication of

Division of Biostatistics
School of Public Health – University of Minnesota

ASSISTANT/ASSOCIATE PROFESSOR OF BIOSTATISTICS

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

We are especially interested in individuals with (1) experience in research collaboration in clinical trials, or (2) an academic and research record in Bayesian methods and applications, especially for data with complex (e.g., spatiotemporal) correlation structures. We will consider applications from candidates with PhDs in areas besides biostatistics. With regard to the clinical trials position: at the present time, the Division has statistical and data coordinating centers for NIH-funded clinical trials networks in HIV/AIDS, and in lung and cardiovascular disease. We need faculty who can contribute to the continuation and expansion of our work in these areas. We will also give serious consideration to applicants with a strong research record in related areas. A successful candidate for the position described here will be expected to take an active part in the design and conduct of clinical trials, methodological research and collaborations with other researchers at the University of Minnesota and with researchers involved in trial networks.

With regard to the position in Bayesian statistics, the Division has significant strengths in this area, with several faculty having active research agendas and both methodological and applied funding in areas such as spatial epidemiology, cancer control, adaptive clinical trials, and bioinformatics. These grants complement our larger, more collaborative research projects with investigators in the University's Academic Health Center. The demand locally and nationally for biostatisticians with expertise in Bayesian methods is substantial and accelerating.

Applications received before January 15, 2010, will be considered for a first round of interviews. We will continue to accept applications until the positions are filled.

The Division of Biostatistics (www.biostat.umn.edu) currently includes 33 graduate faculty and 68 staff. The Division offers MS, MPH, and PhD degrees, and interacts in teaching, advising and research with the U of Minnesota School of Statistics. Current research in statistical methodology includes survival analysis, longitudinal models, generalized linear models, statistical aspects of genetics, genomics and proteomics, analysis of spatial and longitudinal data, Bayes and empirical Bayes methods, structural and latent variable modeling, computer-intensive methods such as Markov chain Monte Carlo, and statistical data mining.

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

A successful candidate will also be responsible for teaching and advising students at the graduate level. At the present time, the Division has 63 graduate students (44 MS and 19 PhD). The salary range for these faculty positions will be very competitive, and the University of Minnesota offers excellent fringe benefits.

Applicants should submit a cover letter, current curriculum vitae, and the names of at least three references on-line at: <http://employment.umn.edu/applicants/Central?quickFind=84209>. Please reference requisition # 163991. In addition, three letters of recommendation should be sent to: Biostatistics Search Committee, Division of Biostatistics, A460 Mayo Building, MMC 303, 420 Delaware Street SE, Minneapolis, MN 55455. For questions contact Sally Olander (brown198@umn.edu).

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

cancer clinical trials and related research. Requirements: strong background in statistical principles, data analysis, computing (especially SAS and R), communication skills, and 1–2 years of experience. Send CV, names of three references to: MS Biostatistician Job Search, Biostatistics & Computational Biology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115; *biostatistics.job-search@jimmy.harvard.edu.* Dana-Farber Cancer Institute is an AA/EOE.

■ Research Assistant Professor, Biostatistics, Department of Biostatistics, Boston University School of Public Health (*sph.bu.edu/bio*). Doctorate in statistics/biostatistics required, experience in observational studies, clinical trials or statistical genetics desirable. Collaborate in medical research and participate in applied methodological research. Send CV, description of research experience, and three references to: Lisa Sullivan, Chair, BUSPH, 715 Albany St., T4E, Boston, MA 02118. Boston University is an EOE.

■ Biostatisticians, Faculty and Staff. Children's Hospital Boston, Harvard seeks: a) instructor/assistant professor-pediatric cancer clinical trials, methodology, teaching. Requirements: PhD and commitment to pediatric cancer research; b) two biostatisticians—statistical analysis of pediatric cancer clinical trials; maintenance and analyses of international neuroblastoma database. Required: master's degree and SAS. Send letter, CV, and three reference letters to: Wendy B. London, c/o *elise.porter@childrens.harvard.edu*. To apply online, see AutoReqId 20525BR at *www.childrenshospital.org/careers/Site2115/mainpageS2115P0.html.* Children's Hospital Boston is an Equal Opportunity Employer. Minorities and women are especially encouraged to apply. Children's Hospital Boston offers a competitive compensation and benefits package.

Michigan

■ Statistics department of Western Michigan University in Kalamazoo, Michigan, seeking assistant professor beginning August 15, 2010. Statistics PhD required in area of diffusion-based Markov chain Monte Carlo techniques. Develop and teach graduate courses on spatial statistics, survival analysis,

FDA Commissioner's Fellowship Program

Touch the Lives of All Americans!

The FDA Commissioner's Fellowship Program is a two-year training program designed to attract top-notch health professionals, food scientists, epidemiologists, engineers, pharmacists, statisticians, physicians and veterinarians. The Fellows work minutes from the nation's capital at FDA's new state-of-the-art White Oak campus in Silver Spring, Maryland or at other FDA facilities. The FDA Commissioner's Fellowship offers competitive salaries with generous funds available for travel and supplies.

Coursework & Preceptorship

The FDA Commissioner's Fellowship program combines coursework designed to provide an in-depth understanding of science behind regulatory review with the development of a carefully designed, agency priority, regulatory science project.

Who Should Apply?

Applicants must have a Doctoral level degree to be eligible. Applicants with a Bachelor's degree in an Engineering discipline will also be considered. Candidates must be a U.S. citizen, a non-citizen national of the U.S., or have been admitted to the U.S. for permanent residence before the program start date. For more information, or to apply, please visit: *www.fda.gov/commissioners fellowships/default.htm*

Applications will be accepted from December 15, 2009 – April 15, 2010

FACULTY SEARCH ANNOUNCEMENT

Assistant Professor -- Division of Biostatistics

The Ohio State University College of Public Health invites applications for a tenure-track faculty positions in Biostatistics.

All applicants must have a PhD in Biostatistics or Statistics. All new faculty will be involved in teaching and methodological research, collaboration with OSU investigators, and mentoring of graduate students.
Candidates for the Assistant Professor position should have an interest in collaborative and methodological research and interest in and demonstrated record of teaching. Candidates for Associate Professor should have a bibliography of peer-reviewed publications, a record of funded research, and a record of excellence in teaching.

Rank and salary will be determined by the candidate's credentials. Applications will be considered as they arrive and the date of appointment is open to negotiation. Women and other under represented groups are especially encouraged to apply.

The College is part of the country's most comprehensive health sciences center -- the Colleges of Medicine, Pharmacy, Nursing, and Dentistry, as well as the James Comprehensive Cancer Center and the Ross Heart Hospital, are adjacent to the College of Public Health.

Located in the state capital and a metropolitan area of more than 1.5 million, Ohio State offers excellent opportunities for interaction with practitioners, policymakers, and academic colleagues. Successful candidates will be able to help shape the direction of the College of Public Health as it expands.

Please send a letter of application, CV, and three letters of reference to:

Thomas Santner, Ph.D.
Chair, Division of Biostatistics
College of Public Health
The Ohio State University
B-122 Starling-Loving Hall
320 West 10th Avenue
Columbus, Ohio 43210
tsantner@cph.osu.edu

THE OHIO STATE UNIVERSITY COLLEGE OF PUBLIC HEALTH

An EEO/AA employer. To build a diverse workforce, The Ohio State University encourages applications from individuals with disabilities, minorities, veterans, and women.

epidemiology, Bayesian analysis; advising doctoral students and serve on departmental committees. Candidates must sustain active research and publications. Qualified candidates apply *www.wmich.edu/hr/careers-at-wmu.html.* Western Michigan University is an Equal Opportunity Employer consistent with applicable federal and state law. All qualified applicants are encouraged to apply.

Minnesota

■ Assistant/associate/full professor of statistics position (tenure-track) in department of mathematics and statistics, Minnesota State University, Mankato. Applicants need to have an earned doctorate in statistics, preferably in mathematical statistics. Applicants also need to demonstrate excellence in teaching, research, and superior communication skills. For more information and online application, go to *agency.governmentjobs.com/mankato/default.cfm.* Minnesota State University is an AA/EOE and a member of the Minnesota State Colleges and Universities System.

■ Minnesota State University Moorhead has a tenure-track assistant professor position available in the mathematics department starting August 16, 2010, pending funding. A PhD in statistics is required. Must be able to teach biostatistics or actuarial science (Exam P/1). For more information, visit *www.mnstate.edu/vacancy/unclassified.htm* or contact Ari Wijetunga, Mathematics Department, MSUM, Moorhead, MN 56563; (218) 477-4007; *wijetung@mnstate.edu*. Minnesota State University is an AA/EOE.

Missouri

■ A tenure-track assistant or associate professor of biostatistics at the Saint Louis University School of Public Health. Applicants must have a PhD in biostatistics or applied statistics or a related field. Applications sent to: *jobs.slu.edu* (Job# 20090553). Inquiries: John Fu, Director, Division of Biostatistics, *qjfu@slu.edu*. Review of applications will begin in February 2010 and continue until the position is filled. AA/EOE.

New York

■ Memorial Sloan-Kettering Cancer Center has positions available for master's-level biostatisticians. The successful applicant will engage in wide variety of collaborative projects w/medical investigators and statisticians. Projects involve the design, analysis, and publication of clinical, laboratory, or cancer prevention research. Qualifications include excellent programming skills, proficiency in database manipulation, and good verbal and written communication skills. Please email cover letter and CV to: *EPIBIOSTATS@mskcc.org*. Memorial Sloan-Kettering Cancer Center is an AA/EOE.

North Carolina

■ The Statistical and Applied Mathematical Sciences Institute (SAMSI), a national institute in North Carolina, seeks postdoctoral fellows for 2010–2011. Fellows are typically appointed for two years, earn a very competitive salary, and receive exceptional mentoring. See *www.samsi.info* for further information. Members of under-represented groups are particularly encouraged to apply. Statistical and Applied Mathematical Sciences Institute is an AA/EOE.

Ohio

■ The division of biostatistics invites applications for the position of division chair. The successful candidate will provide senior leadership to the division, and in the development and application of biostatistical methods within CPH and other health sciences colleges at OSU. The candidate should have a distinguished academic record and a demonstrated record of administration. This position is available immediately. See *cph.osu.edu/divisions/bio/index.cfm* for more information. The Ohio State University encourages applications from individuals with disabilities, minorities, veterans, and women.

■ Funded postdoctoral training program at Case Western Reserve University: computational genomic epidemiology of cancer. PI: Robert C. Elston. Goal: Training to become independent investigators engaged in research at the intersection of cancer research, genetics, epidemiology, biostatistics, and computer science. Salary: $63,000/fringe $18,000 funds Requirements: U.S. citizenship or greencard, PhD or MD, quantitative analysis skills, career goal: cancer genetics research. Application: 1/10/10 Start date: 8/1/10. *cancer.case.edu/training/computationalgenomics.* Case Western Reserve University is an AA/EOE.

Oklahoma

■ Tenure-track assistant professor position beginning August 2010. PhD in statistics, demonstrated excellence in teaching and research potential required. Review of applications begins 01/15/2010 and continues until filled. Send letter of application, CV, transcripts, and arrange to have three recommendation letters to Chair, Search and Hiring Committee, Statistics Dept., 301 MSCS, Oklahoma State University, Stillwater, OK 74078-1055. For information, visit our web site at *statistics.okstate.edu.* Oklahoma State University

Department of Biostatistics, University of Michigan
Faculty Positions

The Department of Biostatistics at the University of Michigan is seeking applicants for two tenure-track positions, one assistant professor and one open rank, to begin in Fall 2010 or earlier. The Department seeks outstanding individuals with interests in the development of statistical methods, collaborative scientific research, and teaching. The Department has particular interest in candidates with research interests in bioinformatics, clinical trials, and imaging, but applications from individuals in all areas of biostatistical research are encouraged.

The Department of Biostatistics has 29 faculty members and over 120 full time PhD and Master students. The Department has strengths in many methodological areas and has close links with the Department of Statistics, the Institute of Social Research, and the Medical School. The Department is home to the Biometrics Outcomes Research Core, which coordinates and provides statistical support for multi-center and multi-disciplinary clinical trials, the Center for Statistical Genetics, and the biostatistical unit of the Cancer Center. More information on the department and the open positions can be found at http://www.sph.umich.edu/biostat.

The University of Michigan offers competitive salaries and excellent benefits. Ann Arbor is a progressive city of about 100,000, with excellent schools and a wide variety of sporting and musical activities. It is rated very highly in national surveys for its quality of life and has the amenities of a city many times its size.

Consideration of applications will begin immediately and will continue until the positions are filled. Interested applicants should send a CV, three reference letters, a statement of research interests, and academic transcripts (if a recent graduate) to: Chair of Search Committee, Department of Biostatistics, School of Public Health, University of Michigan, Ann Arbor, MI 48109-2029, Tel: (734) 936-0989, Email: dinahs@umich.edu.

The University of Michigan is an affirmative action/equal opportunity employer.
Woman and minorities are encouraged to apply.

RUTGERS
UNIVERSITY

Department of Statistics & Biostatistics
Assistant Professor Position

The Department of Statistics & Biostatistics at Rutgers University seeks to hire a faculty member at the rank of tenure track assistant professor.

Applicants are expected to have earned a doctoral degree from a major research university. Responsibilities of the position include: conducting research, and teaching and academic advising of both undergraduate and graduate students. Pursuit of external research funding is also expected.

We are interested in candidates with research and teaching interests in broad statistical applications, particularly the areas in life science and statistical computing.

Please send CV, personal statement, and three letters of recommendation to: Search Committee, Department of Statistics & Biostatistics, Rutgers University, 110 Frelinghuysen Road, Piscataway, NJ 08854-8019. Rutgers University is an EOE.

is an AA/EEO/E-Verify employer committed to diversity. Women and minorities are encouraged to apply.

Pennsylvania

■ PhD biostatistician - clinical trials. American College of Radiology seeks senior PhD biostatistician to conduct cancer clinical trials involving radiation therapy for the Radiation Therapy Oncology Group (*www.RTOG.org*). Doctorate in biostatistics/statistics and 4+ years related experience required. 2+ years multi-center clinical trial experience and supervisory experience strongly preferred. EOE M/F/D/V. Send resume to: ACR-HR, 1818 Market St., Suite 1600, Philadelphia, PA 19103, (P-331) or *hr@phila.acr.org.* EOE N/F/D/V.

■ MS biostatistician - consulting on biomedical research projects and performing data analysis from NIH-sponsored, multicenter, clinical trials in eye disease. Experience in team-oriented research groups, excellent communication skills, proficiency in SAS preferred. Open now, will wait for outstanding Spring 2010 graduates. Send CV and names of 3 references to Maureen Maguire, *maguirem@mail.med.upenn.edu,* University of Pennsylvania, 3535 Market St., Suite 700, Philadelphia PA 19104-3309. University of Pennsylvania School of Medicine is an EOE/AA Employer.

■ 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. Application screening begins immediately, continues until positions closed. Women and minorities are encouraged to apply. AA/EOE.

Tennessee

■ East Tennessee State University - department of mathematics - tenure-track assistant professor position, August 2010. PhD in statistics,

PENNSTATE
1855

EBERLY CHAIR PROFESSORSHIP

The Department of Statistics at The Pennsylvania State University invites applications and nominations for the Eberly Family Endowed Chair. This unique position is the first endowed chair in the department, and was held since its inception in 1988 by Professor C. R. Rao, now Eberly Professor Emeritus of Statistics.

Candidates with an exceptional record of achievement and research leadership in any area of statistics and with credentials appropriate to a tenured full professorship will be considered. Candidates will be expected to take an active role of intellectual leadership in the department. Candidates with interests in the life sciences (e.g. genomics, infectious disease research, neuroscience) and environmental issues (e.g. energy, climate research) will be able to connect to a rich collaborative setting and a number of university-wide initiatives – playing an important role in future departmental hiring in these areas.

The Department faculty members are engaged in a wide variety of research areas including multivariate analysis, likelihood theory, computational methods, biostatistics and statistical genomics, environmental statistics, astrostatistics, etc., through departmental centers (http://www.stat.psu.edu/centers/), our Statistical Consulting Center, and several university-wide research units (e.g. the Methodology Center, http://methodology.psu.edu/, the Center for Comparative Genomics and Bioinformatics, http://www.bx.psu.edu/, the Center for Infectious Disease Dynamics, http://www.cidd.psu.edu/ -- see also other units in the Huck Institutes for the Life Sciences, http://www.lsc.psu.edu/). Penn State is a $750 million/year research enterprise, most of it at the University Park campus.

The Department offers Bachelor's, Master's, and Doctoral degrees in Statistics. It is part of the Eberly College of Science, and is housed in a modern technological classroom building, completed in 1992. The building includes ample office space as well as computer labs, a library, seminar rooms and a lounge.

The Pennsylvania State University is located in the center of the state, in a valley surrounded by the Appalachian Mountains and state forest land. The adjoining town of State College is part of a metropolitan area with ample health care, indoor and outdoor recreation, and excellent quality of life – within 250 miles of New York City, Philadelphia, Pittsburgh, Baltimore and Washington, D.C. All the amenities of a metropolitan area -- first rate public transportation, world-class theater and concert events, advanced technology and research facilities -- are available without the attending stress. Scientists, engineers and professionals from around the world participate in advanced research programs and conferences on a wide range of subjects at the Penn State Conference Center.

Additional information about the department can be found at http://www.stat.psu.edu/ . Telephone or e-mail inquiries regarding the position should be directed to: Dr. James L Rosenberger, Professor of Statistics and Acting Department Head (814) 865-1348 or JLR@psu.edu. Applicants should send a letter of interest, with a curriculum vitae and the names of three references, in confidence, addressed to:

Dr. James L Rosenberger, Acting Department Head
c/o Ms. Laurie Roan
Department of Statistics
Penn State University
326A Thomas Building
University Park, PA 16802-2111

Consideration of applications will continue until the position is filled. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

mathematical biology, applied mathematics, or related field required by August 2010. To teach undergraduate/graduate courses, direct master's theses, do research, and participate in symbiosis. Computational, bioinformatics, biostatistics background preferred. Applications review begins 12/1/09. Apply to this position at *jobs.etsu.edu//applicants/Central?quickFind=50649.* AA/EOE.

■ The University of Memphis, department of mathematical sciences invites applicants for a tenure-track assistant professor position beginning August 2010. Required PhD in mathematical sciences, statistics, or biostatistics. Applicant must demonstrate excellence in research and teaching. Candidates whose research expertise belongs to one of the following areas are encouraged to apply: Biostatistics/applied statistics, extremal and/or probabilistic combinatorics, and functional analysis/operator theory. Apply at *workforum.memphis.edu.* EOE.

Texas

■ PhD statistician. Assistant professor to work in the Center for Clinical and Translational Sciences (CCTS) (Houston CTSA Program) at The University of Texas Health Science Center at Houston (UTHSC-H). All areas of statistics are considered. Interested candidates should send copies of their transcripts, CV, and names and contact information for three references to M. H. Rahbar, Director, Biostatistics/Epidemiology/Research Design Core, CCTS, UTHSC-H, via *Mohammad.H.Rahbar@uth.tmc.edu*. The University of Texas Health Science Center at Houston is an EO/AA employer. M/F/D/V. This is a security-sensitive position and thereby subject to Texas Education Code ß 51.215. A background check will be required for the final candidate.

■ The department of epidemiology and biostatistics at the School of Rural Public Health, Texas A&M Health Science Center, is seeking candidates for two open-rank, 12-month, state-funded, tenure-track faculty positions. Qualifications include a PhD or equivalent in biostatistics or statistics. See *srph.tamhsc.edu/epidemiology-biostatistics/faculty-positions.html* for more information. Send cover letter, CV, and three references to *payton@srph.tamhsc.edu*. Review of

The Department of Biostatistics at the University of Washington wishes to fill two full-time (100% FTE) tenure-track faculty positions at the Assistant Professor level. Candidates who will enhance the Department's expertise in methodological research are strongly encouraged to apply. The Department of Biostatistics currently has 33 regular-track and 10 research-track faculty, as well as 30 affiliate and 5 adjunct faculty.

Ph.D. required in Biostatistics, Statistics or related field. Duties include methodological research, biomedical research collaboration, and teaching. University of Washington faculty engage in teaching, research and service. Submit letter of interest, curriculum vitae and four signed original letters of reference by February 15, 2010 to:

Dr. Ken Rice, Chair
Biostatistics Methods Search
University of Washington
Department of Biostatistics
Box 357232
Seattle, WA 98195-7232

For information on the Department of Biostatistics, please visit http://www.biostat.washington.edu. Applications will be accepted until position is filled. The University of Washington is an affirmative action, equal opportunity employer. The University is building a culturally diverse faculty and staff and strongly encourages applications from women, minorities, individuals with disabilities and covered veterans.

UNC
GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH

Faculty Position in the Collaborative Studies Coordinating Center,
Department of Biostatistics

The Collaborative Studies Coordinating Center (CSCC) in the Department of Biostatistics at The University of North Carolina at Chapel Hill is seeking applications for a Research Track faculty position beginning in Summer or Fall, 2010. The faculty appointment will be in Biostatistics in UNC's Gillings School of Global Public Health. Applicants are sought at the Research Assistant, Research Associate, and/or Research Professor levels. A doctoral degree in Statistics, Biostatistics, or equivalent is required. Applicants should have broad research and teaching interests, the potential to direct multi-center clinical trials and epidemiological studies, and the ability to engage in collaborative research with investigators at UNC-CH and other universities and research centers. Founded in 1971, the CSCC is the longest-running, NIH-funded Coordinating Center with a portfolio of studies spanning various disease areas. The University of North Carolina is among the nation's top public research universities, with dynamic programs in biostatistics, epidemiology, statistical genetics, bioinformatics, and medicine. This position will remain open until filled.

To apply, use the electronic submission website at http://jobs.unc.edu/1002200 and upload PDF versions of your CV, cover letter, and research and teaching statements. Candidates must also arrange for three letters of recommendation to arrive via email at bseagrov@bios.unc.edu and subsequently in hard copy to:

Faculty Search Committee
c/o Betsy Seagroves
Department of Biostatistics
CB #7420, McGavran-Greenberg Hall
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7420

The Gillings School of Global Public Health is actively committed to diversity. We strongly encourage applications from women, minorities and individuals with disabilities. The University of North Carolina at Chapel Hill is an Equal Opportunity Employer.

UNC
LINEBERGER COMPREHENSIVE CANCER CENTER
NC CANCER HOSPITAL

The UNC Lineberger Comprehensive Cancer Center (UNC LCCC), in collaboration with departments in the Gillings School of Global Public Health and College of Arts and Sciences at the University of North Carolina at Chapel Hill, seeks outstanding candidates for an open-rank, tenure-track faculty position to begin in summer or fall of 2010. We seek a scholar specializing in quantitative methods who will conduct independent research and also work collaboratively with investigators in the UNC LCCC's population sciences program. The individual must have a strong commitment to pursue cancer-related behavioral and population science research. The ideal candidate should have training in biostatistics, econometrics, psychometrics, or quantitative methodology in sociology, with specific expertise in one or more of the following areas: latent variable models, hierarchical or multilevel modeling, design and analysis of group or cluster randomized trials, longitudinal data, and mediation/moderation analysis. The ideal candidate will also have excellent interpersonal, communication, organizational, and writing skills as well as experience in working in multidisciplinary research teams. The academic home department (biostatistics, epidemiology, health behavior and health education, psychology, sociology, etc.) will depend on the person selected.

To apply, please send as a pdf a cover letter, CV, research statement, up to three reprints/preprints and the names of four references to jobs.unc.edu/1002141. Please also have four references submit letters of recommendation (hard copy and pdf) to Ms. Melissa Mack at UNC LIneberger Comprehensive Cancer Center, CB# 7295, 450 West Drive, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7295; emstroud@med.unc.edu. We are requesting reference letters immediately along with the application to facilitate the recruitment process. Review of applications will begin early 2010 and will continue until the position is filled.

FACULTY SEARCH ANNOUNCEMENT
Chair, Division of Biostatistics

The Ohio State University College of Public Health is seeking an innovative leader and scholar to chair its Division of Biostatistics. The successful candidate will provide senior leadership and vision to the Division, and in the development and application of biostatistical methods within the College of Public Health and other health sciences colleges at OSU. This position is available immediately. The candidate should have a PhD in biostatistics, statistics or equivalent, have academic credentials consistent with appointment as a professor with tenure in the College of Public Health, have a demonstrated record of administrative experience including mentoring junior faculty, and a distinguished record of teaching.

The successful candidate will have the opportunity to collaborate in research initiatives with other investigators both within and outside the College of Public Health. They will have the opportunity to utilize the full resources at OSU which houses the most comprehensive health sciences complex on a single campus in the U.S.

For additional details please visit:

http://cph.osu.edu/divisions/bio/openpositions.cfm

Please send a cover letter and CV to:
Thomas J. Santner, PhD
Chair, Biostatistics Search Committee
OSU College of Public Health
B-122 Starling Loving Hall
320 W. 10th Avenue
Columbus, OH 43210-1240
tsantner@cph.osu.edu

THE OHIO STATE UNIVERSITY COLLEGE OF PUBLIC HEALTH

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applications will begin on January 8, 2010, until positions filled. *srph.tamhsc.edu/epidemiology-biostatistics/faculty-positions.html.* Texas A&M Health Science Center is an EEO/AA Employer.

■ StataCorp is seeking applications for senior statistician and software developer. Duties include programming new features into Stata, writing technical documentation, researching new statistical methods, and communicating with Stata users. Requirements include a PhD in statistics/biostatistics, experience programming in low-level languages, and technical writing skills. Additional details can be found at *www.stata.com/employment/st-1s.html*. StataCorp is an EOE.

Canada

British Columbia

■ University of British Columbia statistics department is hiring a tenure-track instructor, start date July 2010. Apply online at *hr.ubc.ca/careers/faculty_postings.html* or by email *search@stat.ubc.ca* by January 24, 2010. Visit *www.stat.ubc.ca* for more information. UBC hires on merit basis, commits to employment equity. We encourage all qualified persons to apply, particularly women, visible minorities, and individuals with disabilities. Canadians and permanent residents of Canada are given priority.

International

■ Tenure-track (junior faculty level) and postdoc positions in areas of applied and theoretical statistics, decision theory, mathematics of operations research, mathematical and theoretical economics, quantitative operations management, and quantitative social sciences. Compensation and teaching load will be competitive w/other top European schools. Application packages (CV; samples of research; three letters of reference) should be sent to *recruiting@unibocconi.it*. Knowledge of Italian is neither required nor advantageous. *www.unibocconi.eu.* EOE. ■

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Contacts

Main

American Statistical Association
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Alexandria, VA 22314-1943
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Email: *asainfo@amstat.org*

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Meetings: *meetings@amstat.org*

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General Information

Information about any of the following may be found by linking to the web sites listed below or by contacting Member Services.

Amstat Online

Access up-to-date information at *www.amstat.org*. Updated often, the ASA's web site gives you access to recent news; the ASA's products and services; and section, chapter, and committee home pages.

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Campaigns for the ASA

Giving to the ASA

Members and friends of the ASA may contribute to the statistics profession by financially supporting our mission and goals. The ASA is a 501(c) (3) not-for-profit corporation. Contributions to the ASA are tax deductible. Please visit *www.amstat.org/giving* for more information.

Host a Membership Social

Host a membership social and the ASA will reimburse up to $100 to cover the cost of pizza, sandwiches, snacks, and soft drinks. Visit *www.amstat.org/membership/pdfs/ChapterSchoolSocials.pdf* to participate.

Member Demographics

The ASA collects demographics data to create summary reports of the ASA membership and develop services. All individual demographic information remains confidential. Visit *www.amstat.org/membersonly* and click "My Demographic Profile" under "My Account" to participate.

Member-Get-A-Member

Recruit your colleagues for ASA membership! You depend on the ASA, and we count on you, too. We know our current members are the best possible sources for new members who could benefit from all the ASA has to offer. Visit *www.amstat.org/membership/mgm*.

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Now you can sponsor the membership of a colleague, student, or K–12 school. You also can give ASA membership as a gift! Visit *www.amstat.org/membership/SAM*.

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Students join the ASA at the special rate of $10. Visit *www.amstat.org/join*.

Chapter-Get-A-Member

Chapters are the grass roots of the ASA, which is why we are challenging our chapters to help increase membership with the Chapter-Get-A-Member campaign. Visit *www.amstat.org/membership/cgm*.

Publications & Products

Back Issues

Back issues of ASA publications may be ordered by sending an email to *asainfo@amstat.org*.

Books

■ ***Making Sense of Statistical Studies*** provides hands-on investigations to help students design and analyze statistical studies. Visit *www.amstat.org/education/msss*.

■ ***The ASA-SIAM Series on Statistics and Applied Probability*** provides works of general interest to statisticians, applied mathematicians, engineers, and scientists. The series is jointly published by the ASA and the Society for Industrial and Applied Mathematics. Visit *www.amstat.org/publications/booksandcds.cfm*.

■ ***Teaching Statistics: Resources for Undergraduate Instructors*** is a publication of the ASA and the Mathematical Association of America. For more information, visit *www.amstat.org/publications/booksandcds.cfm*.

■ ***Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: A Pre-K–12 Curriculum Framework*** provides a conceptual framework for K–12 statistics education and a coherent picture of the overall curriculum. For more information, visit *www.amstat.org/education/gaise*.

Brochures

The ASA publishes brochures on topics of interest to professional statisticians and those who want to explore the field of statistics. Many brochures are available at no charge or for a nominal fee. For more information and to order, visit *www.amstat.org/ASAStore/Brochures_C104.cfm*.

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■ ***41 Years of Technometrics.*** Now you can have all articles published during the first 41 years of *Technometrics* at your fingertips. For more information, visit *www.amstat.org/publications/booksandcds.cfm*.

■ ***JSM Proceedings.*** Each year, the ASA publishes papers presented at JSM. For more information, visit *www.amstat.org/publications/booksandcds.cfm*.

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Each year, a number of awards are presented in recognition of outstanding contributions or dedication to the field of statistics. For more information, visit *www.amstat.org/careers/awards.cfm* or email *awards@amstat.org*.

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ASA members enjoy free online access to the Current Index to Statistics (CIS). To activate your CIS access, log in to ASA Members Only at *www.amstat.org/membersonly* and select the CIS Web Access tab.

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Since its founding in 1839, the ASA has depended on the invaluable service of dedicated volunteers, working through committees, to achieve its goals. Visit *www.amstat.org/comm* for information.

Members Only

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With the help of knowledgeable and well-respected leaders in the profession, the ASA's Center for Statistics Education is able to provide quality educational opportunities to statisticians of all levels of achievement. Visit *www.amstat.org/education* or email *educinfo@amstat.org.*

E-newsletter

ASA members receive a monthly e-newsletter, ASA Member News, full of updates and special announcements. View the latest issue at *www.amstat.org/newsletters.*

Fellows

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Six major research programs and one grant program are administered by the ASA. Visit *www.amstat.org/careers/fellowshipsgrants.cfm* or email *farp@amstat.org* for more information.

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As a member of the ASA, you have access to many additional features and options, including an enhanced searchable member directory, the e-newsletter archive, CIS, and discounts. You also have the ability to manage your account online. Visit *www.amstat.org/membersonly.*

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If you reside in a developing country and are a member of one of the ASA's reciprocal societies, you are eligible to receive an additional $5 off your developing country membership dues. Visit *www.amstat.org/membership/devcountries/app/index.cfm?fuseaction=ShowApp* for more information.

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Editorial Calendar

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Mailing Lists

The ASA membership list is available to rent from our list broker, InFocus. Contact Jessecua Nairn of InFocus at *JNairn@infocuslists.com* for more information or to order the ASA mailing list. Only members who choose to participate are listed.

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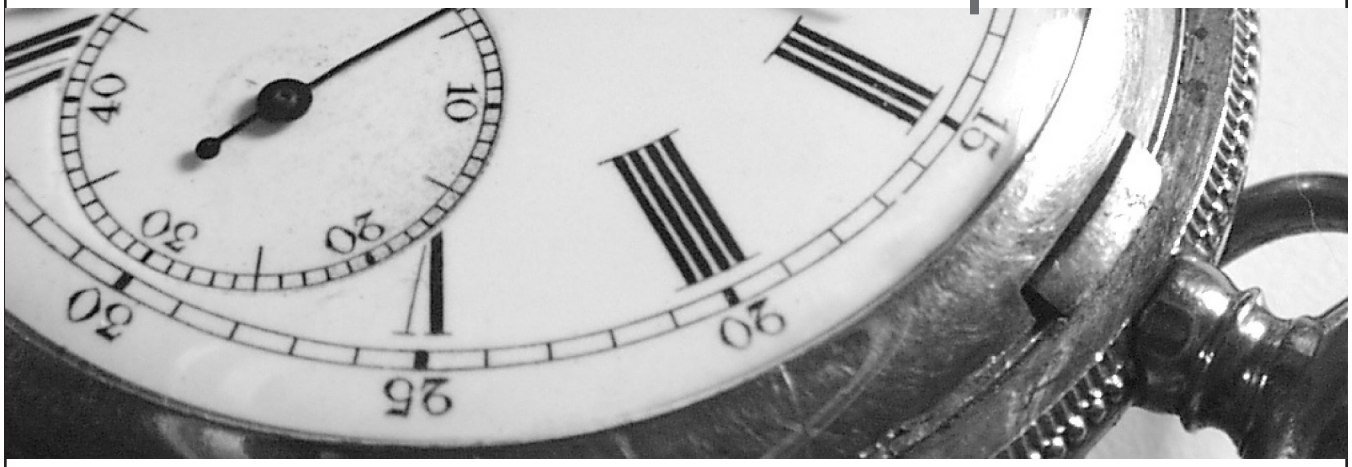

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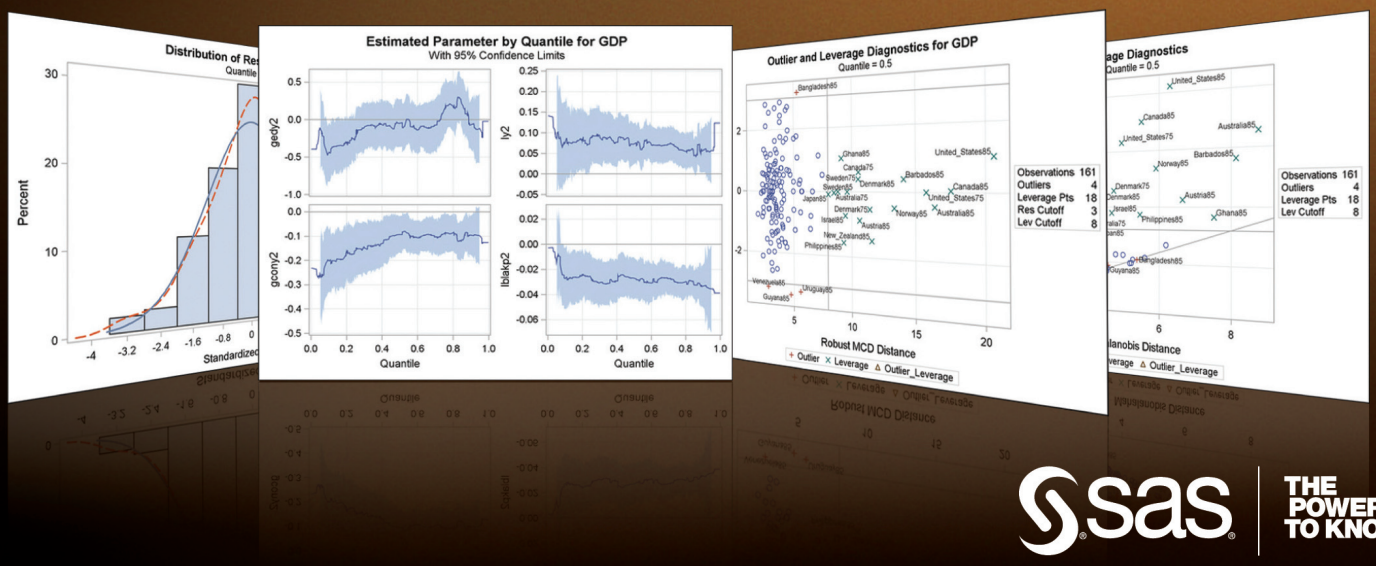
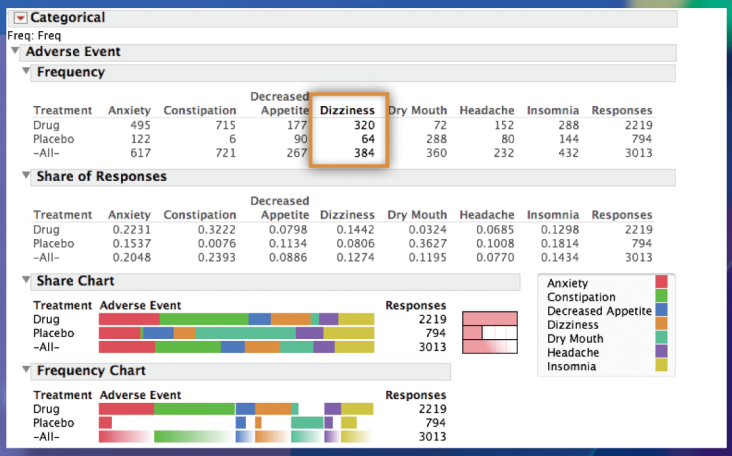


What are these? A FREQUENCY TABLE, SHARE OF RESPONSES TABLE, SHARE CHART AND FREQUENCY CHART SHOWING RESULTS OF CATEGORICAL ANALYSIS

What are they for? They show summarized responses and the color-coded relative proportions of responses for the two groups studied.

What can they do? In this instance, a pharmaceutical company can see adverse events from a drug's clinical trial. Using color and length of the bars, the analysis compares the drug to the placebo. The relative length of the orange bars (dizziness) for the drug and placebo stands out. Looking at the data, you see that the drug resulted in 320 cases of dizziness while the placebo resulted in 64.



Treatment	Anxiety	Constipation	Decreased Appetite	Dizziness	Dry Mouth	Headache	Insomnia	Responses
Drug	495	715	177	320	72	152	288	2219
Placebo	122	6	90	64	288	80	144	794
-All-	617	721	267	384	360	232	432	3013

Treatment	Anxiety	Constipation	Decreased Appetite	Dizziness	Dry Mouth	Headache	Insomnia	Responses
Drug	0.2231	0.3222	0.0798	0.1442	0.0324	0.0685	0.1298	2219
Placebo	0.1537	0.0076	0.1134	0.0806	0.3627	0.1008	0.1814	794
-All-	0.2048	0.2393	0.0886	0.1274	0.1195	0.0770	0.1434	3013

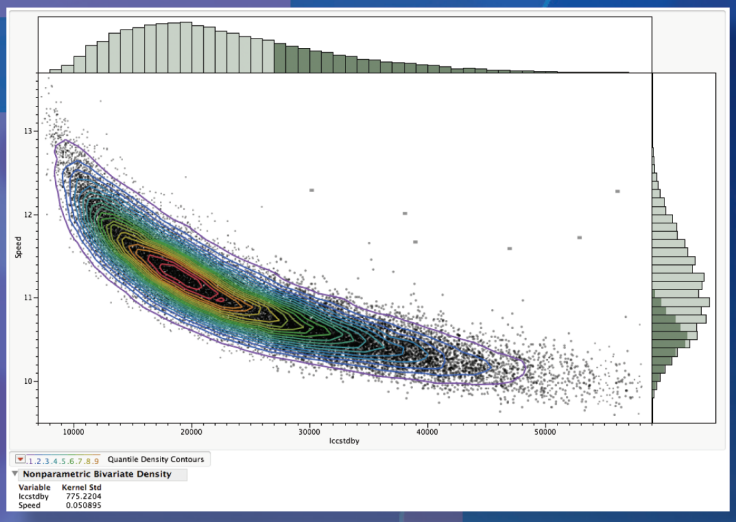
Treatment	Adverse Event	Responses
Drug		2219
Placebo		794
-All-		3013

Treatment	Adverse Event	Responses
Drug		2219
Placebo		794
-All-		3013

What is this? A SCATTERPLOT WITH NONPARAMETRIC DENSITY CONTOURS AND MARGINAL DISTRIBUTIONS

What is it for? It shows where the data is most dense, with each contour line in the curved shape enclosing 5 percent of the data.

What can it do? For example, the manufacturer of computer processors can analyze the relationship between the speed of a chip and any factor that engineers can control, such as standby current, to improve quality and profit margins. Using this scatterplot, the manufacturer can identify abnormal chips—the ones represented by points lying farthest from the curved shape—and see that reducing standby current helps increase the speed of chips.



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