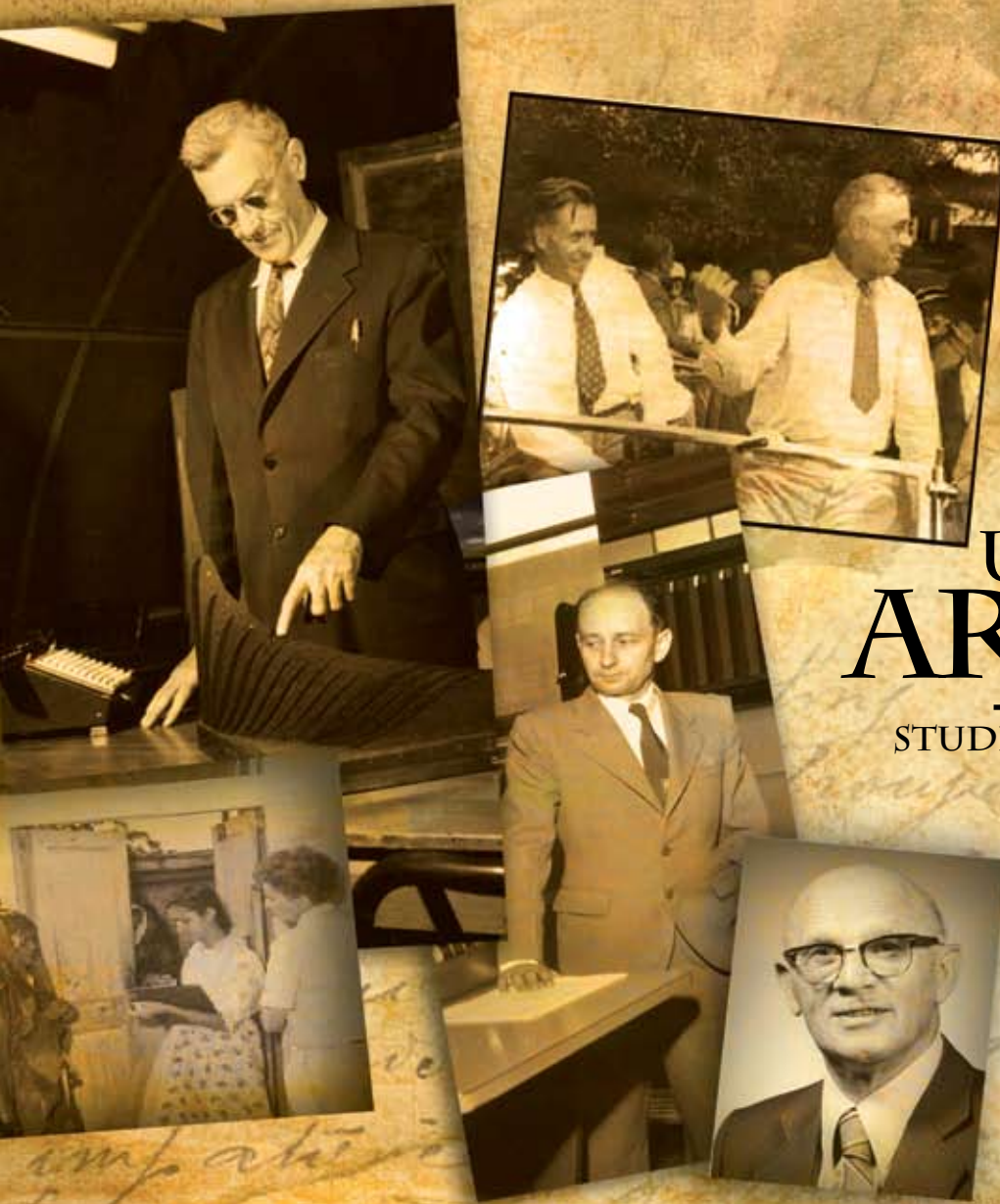


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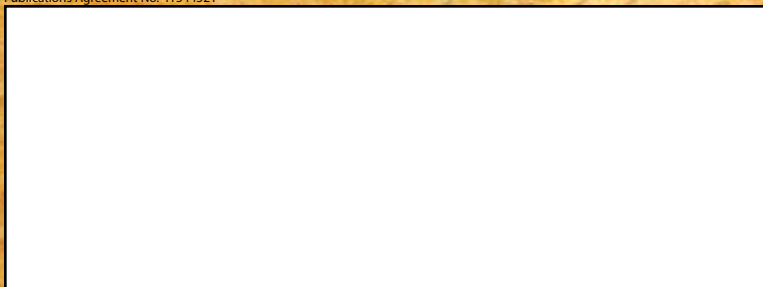
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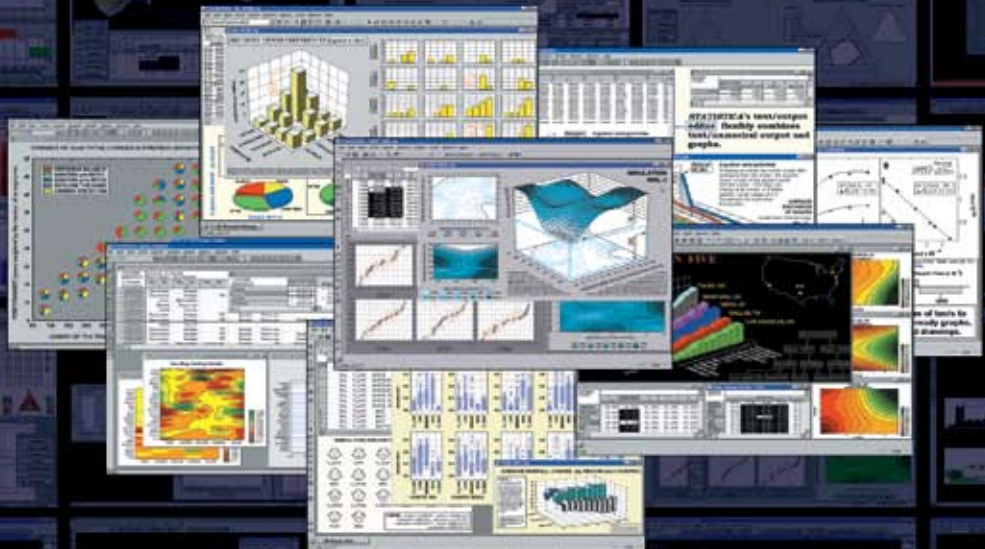
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To be a world leader in promoting statistical practice, applications, and research; publishing statistical journals; improving statistical education; and advancing the statistics profession

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.

FEATURES

- 3 President's Corner
- 5 Election Results for 2011
- 8 Journal Seeks Undergraduates Interested in Research
- 9 Statistics Students with Reading Disabilities Need Tools
- 10 Using the Archives
Students Use ASA Archives to Complete Project
- 12 StatAid Offers Statistics for Human Rights
- 12 Nominations Sought for Impact Award
- 14 Statistician's View Given at Congressional Briefing on Climate Science



USING THE
ARCHIVES
STUDENTS USE ASA
ARCHIVES TO
COMPLETE PROJECT
PAGE 10

- 15 NC Universities Awarded NIH Grant
- 16 Get the Most Out of Your Online ASA Subscriptions
- 18 SIGMEDD Outlines Medical Devices Sessions at JSM
- 19 Chinese Delegation Visits ASA, NC State, SAS/JMP
- 19 NISS, SAMSI Win InSpire Award
- 20 Report an Extreme Disappointment
- 21 Member Spotlight
- 22 ASA-SIAM Series

Column Contributors

Science Policy News

Congress Appears Gridlocked for Remainder of Year **p. 25**

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.



Pierson

Contributing Editor

Steve Pierson, the ASA's director of science policy, earned his PhD in physics from the University of Minnesota. He spent eight years in the physics department of Worcester Polytechnic Institute and later became head of government relations at the American Physical Society.

Master's Notebook

In the Hot Seat: Two Experienced Consultants Discuss Hiring Statisticians **p. 27**

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

Contributing Editor

Erin Tanenbaum is director of statistical resources at the Nielsen Co. She earned her bachelor's degree in economics from Kalamazoo College and her master's in applied statistics from the University of Michigan.



Tanenbaum

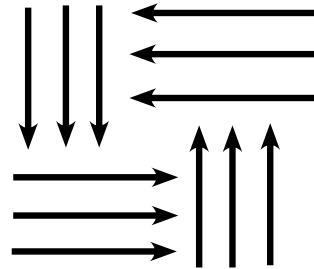
QUOTABLE

“We expect that data is not clean, and we know many of our techniques can overcome those errors.”

Kaiser Fung
On how typos show the value of statistics, <http://tinyurl.com/2w8r834>

DEPARTMENTS

- 23 **Statistician's View**
Careful Statistical Reasoning Can Provide Support for Supreme Court Decisions



Congress Appears Gridlocked for Remainder of Year p. 25

MEMBER NEWS

- 33 People News
- 37 Section News
- 45 Chapter News
- 47 Calendar of Events
- 53 Professional Opportunities

cover design by Megan Murphy

Celebrating Anniversaries and Achievements

Hope you had a wonderful July 4th. More than 20 years ago, President George Bush talked about another sort of Independence Day. At the signing of the Americans with Disabilities Act, he said, "Three weeks ago, we celebrated our nation's Independence Day. Today, we're here to rejoice in and celebrate another 'independence day,' one that is long overdue. With today's signing of the landmark Americans with Disabilities Act, every man, woman, and child with a disability can now pass through once-closed doors into a bright new era of equality, independence, and freedom."

Last year, President Barack Obama said, "We must build a world free of unnecessary barriers, stereotypes, and discrimination. Policies must be developed, attitudes must be shaped, and buildings and organizations must be designed to ensure that everyone has a chance to get the education they need and live independently as full citizens in their communities."

As the Americans with Disabilities Act (ADA) reaches its 20th anniversary on July 26, we wish to reaffirm our commitment to encouraging persons with disabilities to become statisticians and fully participate in the ASA.

Through our Committee on Statistics and Disability, the ASA has supported persons with disabilities since before the ADA was enacted. It originated as an ad hoc committee in 1985, charged with eliminating barriers in participation within the ASA and scientific, business, and government communities. In 1990, the committee's mission expanded to include encouraging people with disabilities to become statisticians, improving disability statistics, and developing better measures and standards.

I want to personally thank current and past members of this committee, as well as many other volunteers, who have helped make the ASA and our profession welcoming and accessible to everyone. I also want to congratulate our members with disabilities on their successes.

As you prepare your presentations for JSM, please visit www.amstat.org/committees/cmtesd/confresources.html and follow the suggestions to make your talks accessible to all our members.

NISS Celebrates 20 Years

Speaking of anniversaries, the National Institute of Statistical Sciences (NISS) is celebrating its

20th Anniversary this year. NISS was established in 1990 by universities in the Research Triangle area of North Carolina and statistical societies such as the ASA, Institute of Mathematical Statistics, and International Biometric Society (ENAR and WNAR). It is another platform that provides opportunities for cross-sector collaboration among academia, industry, and government.

About 60 government agencies, corporations, and universities belong to NISS Affiliates and NISS/SAMSI Affiliates programs. These programs received the SPAIG Award from the ASA in 2005 for their successful partnerships among academia, industry, and government.

The mission of NISS is "to identify, catalyze, and foster high-impact, cross-disciplinary, and cross-sector research involving the statistical sciences." It is dedicated to strengthening and serving the national statistics community by catalyzing community members' participation in applied research driven by challenges facing government and industry (see www.niss.org).

One of the many contributions NISS has made to our profession is work force development. NISS has been a leader in training and mentoring post-doctoral fellows (more than 70 so far) and provides career development opportunities for statisticians and scientists, especially those in the fledgling stages of their careers.

In May, NISS was awarded a two-year grant of more than \$750,000 from the National Science Foundation (NSF) to establish a postdoctoral research program in collaboration with NSF's Division of Science Resource Statistics (SRS).

SAMSI Achieves Much in Eight Years

As I write about NISS's success, it is hard not to think about the Statistical and Applied Mathematical Sciences Institute (SAMSI), which was established in 2002 and has an ASA representative on its governing board.

On behalf of the ASA, I want to take this opportunity to thank SAMSI's founding director, Jim Berger, for his service to our profession. I also want to give him the opportunity to share his thoughts about SAMSI as he passes the baton to Richard Smith:

It is hard to believe that SAMSI is already eight years old. It seems like only yesterday that we opened our doors, not quite sure if



Sastry Pantula

anyone would walk in or what to do with them if they did!

Well, they walked in. Next year, for instance, SAMSI will have eight year-long visitors, 35 semester-long visitors, 15 postdoctoral fellows, hordes of shorter-term visitors and more than a thousand workshop participants. It also turns out that we never had any trouble figuring out what to do with those who walked in; we just put them together and wonderful things started happening! We did find ways to accelerate the process, for instance, through the introduction of the research working groups, which meet physically at SAMSI, and through web conferencing (since not everyone can be at SAMSI all the time). Typically, 10 to 15 such working groups are concurrently operating during any given year.

It is also amazing to look back and realize that we have had 26 outstanding research programs. Of course, the success of these programs is primarily due to the extraordinary national and international leaders in statistics, applied mathematics, and disciplinary science who first imagined, then developed, and, finally, led the programs. Space precludes their individual recognition here, but they were at the heart of SAMSI's success.

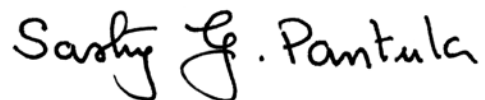
Another of the most satisfying aspects of the job has been seeing all the young researchers and students who had their lives changed by SAMSI. This includes 67 postdoctoral fellows (most of who were here for two years), nearly 140 semester or year-long graduate students, and the thousands who attended the many SAMSI education and outreach events, many of which were specifically focused on enhancing diversity.

The people who have made indelible contributions to SAMSI are too numerous to mention here, but I certainly want to highlight—and profusely thank—the former and current associate directors: Tom Banks, Steve Marron, Young Truong, Chris Jones, Jim Damon, Ralph Smith, Michael Minion, Pierre Gremaud, and Nell Sedransk. They were central to so much of SAMSI's development and operation. Alan Karr was also an [associate director], but also much more. For instance, it was his leadership that made the new SAMSI wing of the NISS/SAMSI building possible.

Of course, SAMSI would not have been possible without the support of the National Science Foundation, since it is the NSF money that goes (almost entirely) toward supporting the many visitors and postdocs at SAMSI. SAMSI also benefits from the involvement of many local statisticians and scientists, whose participation would not be possible without the extensive support of the local universities and the biostatistics, mathematics, and statistics departments therein. To all, my deepest thanks, and a special thanks to Dan Solomon, who, from the beginning of SAMSI, was a major supporter and fount of wisdom.

While I'm stepping down as SAMSI director, I certainly won't be leaving SAMSI. Indeed, from now on, I'll have the fun of being downstairs—in the working group research rooms—rather than upstairs doing admin[istration]. That is one of the many reasons it is great that Richard Smith is assuming the directorship: I'm sure that he will do an outstanding job of ensuring that the research happening downstairs at SAMSI is stunning!

Thank you for all of you for your various contributions to our association and to our profession. See you in Vancouver! Please don't forget your passports.



Correction

Gary King of Harvard, a longtime member of the ASA, was inadvertently left out of a list of ASA members elected to the National Academy of Sciences that was published in the June issue of *Amstat News*. We congratulate King on his selection and apologize for not including him previously.

Election Results for 2011

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Journal Seeks Undergraduates Interested in Research

The *Journal of Young Investigators (JYI)* is soliciting staff applications and news, feature, and research article submissions.

Founded in 1997, *JYI* publishes peer-reviewed scientific manuscripts, news, and features articles, as well as information pertinent to careers in science. It is the premier monthly research journal organized entirely by undergraduates.

Students interested in joining the staff are encouraged to submit applications for the following positions:

Senior news and features editor

Director of the careers center

Director of human resources

Science journalist

Research associate editor

Career researcher

Human resources officer

Public relations graphic designer

All *JYI* staff members contribute their time on an unpaid basis and should possess a passion for promoting scientific research.

Undergraduates also are encouraged to submit manuscripts in biology, chemistry, engineering, the physical sciences, mathematics, psychology, and other social sciences. Senior honors theses and summer research projects are especially welcome. Submissions are peer-reviewed by *JYI*'s editorial staff and considered for publication at www.jyi.org.

Represented at more than 50 academic institutions and in nearly a dozen countries, *JYI* has been featured in *Nature*, *The New York Times*, and *The Chronicle of Higher Education*.

For more information regarding opportunities for student involvement, visit www.jyi.org/participate.php. Direct all questions to Tim Xu, director of public relations, at dpr@jyi.org or Sherry Yu, director of human resources, at dhr@jyi.org. ■

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Statistics Students with Reading Disabilities Need Tools

Joan Turek, Peter Lachenburch, John Gardner, Christopher Lee,
Bob Martinengo, David Keer, and Michele Connolly



Statistics is a profession well suited to persons with disabilities, as it offers few physical barriers to participation. However, there is a need to ensure reading-impaired college students have access to the tools they need.

In addition to the blind, persons with dyslexia and similar cognitive disabilities need assistance. Options range from Braille to audio text readers, depending on the nature of the disability. Only about 20% of persons with a reading disability use Braille.

Scientific textbooks are more readily available in an accessible form at the high-school level, as there are legal requirements for publishers to provide files in a standard format that can be converted to Braille. Since texts in an accessible form are much more limited at the college level and a textbook in Braille can cost thousands of dollars, it is the college's responsibility—usually their disability office—to ensure students receive required materials in a timely fashion.

College staff can order materials from agencies such as Recording for the Blind and Dyslexic or scan student textbooks themselves to be converted to digital form and read by an audio text reader. They also may request electronic files that can be formatted for the students. Publishers usually provide PDF files to colleges for free. Sometimes, especially for older texts, they provide print versions that can be scanned and converted to digital form. The AccessText network assists in obtaining these materials from publishers and will soon allow colleges to share files they have created for reading-disabled students.

Reworking PDF files so they can be converted while ensuring they convey the materials in the book correctly can be a difficult task, but there is software available to help. InftyReader, available from InftyProject, provides audio solutions and can

Resources

AccessText Network, www.accesstext.org

DAISY Consortium, www.daisy.org

Recording for the Blind & Dyslexic, www.rfbd.org

ReadHowYouWant, www.readhowyouwant.com

Bookshare, www.bookshare.org

InftyProject, www.inftyproject.org

MathML, www.w3.org/Math

liblouisxml (Braille converter), www.jjb-software.com/liblouisxml-guide.html

National Instructional Materials Accessibility Standard, <http://nimas.cast.org>

American Physics Society, <http://aps.org/publications/apsnews/200812/blind.cfm>

U.S. Department of Health and Human Services, www.hhs.gov/web/508 and www.hhs.gov/web/policies/accomodation/index.html

eTextbooks (including statistics), www.coursesmart.com/search

export text as XHTML, which can then be converted to Braille using the free liblouisxml application. MathML, a specification for describing mathematics that can be embedded in XHTML files, deals with both the presentation and meaning of formula components.

Also, the emergence of e-books in the EPUB format offers an important option, although EPUB readers that offer full accessibility have been slow to reach the market. Currently, the EPUB format does not support mathematics, but it does permit SVG graphics, which can be made accessible.

Access to journals and scientific materials other than textbooks also is needed. The American Physics Society is developing ways to improve journals' accessibility to persons with a reading disability. ■



H. O. Hartley



Oscar Kempthorne



George Snedecor

USING THE ARCHIVES

STUDENTS USE ASA ARCHIVES TO COMPLETE PROJECT

Patricia A. English
Committee on ASA Archives and
Historical Materials

In the spring of 2009, six statistics students used the ASA archives, located in the special collections department of Iowa State University's (ISU) library, to produce posters about statistical topics or statisticians of note. The posters were presented at JSM in Washington, DC. I talked with the students about using the archives—ease of use, amount of information, etc.

Some topics and statisticians were easier to research than others. Dai-Trang Le wrote about George Snedecor, for whom there was a large number of boxes from which to pull information (almost too much information).

David Rockoff first wanted to review the history of a statistical test, but found it was not easy to trace through the archives, so he changed to writing about statisticians speaking out on issues such as depression and smoking.

Karl Pazdernik chose Oscar Kempthorne, who was an important figure at ISU and for whom there was also a large number of boxes. My favorite quote from Pazdernik's poster is, "I hated farming so much I had to get out. There was only one way to do it: brainpower."

Laura Hildreth chose to highlight Henry Wallace. I learned from her poster that Wallace was an influential statistician at ISU who had a positive impact on Snedecor. He went on to be appointed Secretary of Agriculture in 1933 under President Franklin Delano Roosevelt and served as his vice president from 1941–1944. As far as I can tell, he was the highest-ranking statistician in government during the 20th century.

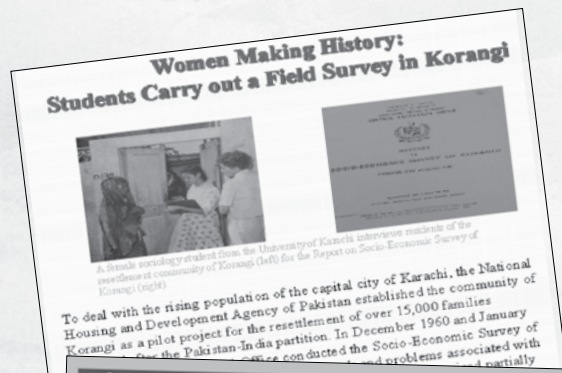
Luvenia N. Hellams highlighted the relatively unknown career of Dorothy Cooke. Cooke earned an MS in statistics from Iowa State College in 1946

How to Use the Archives

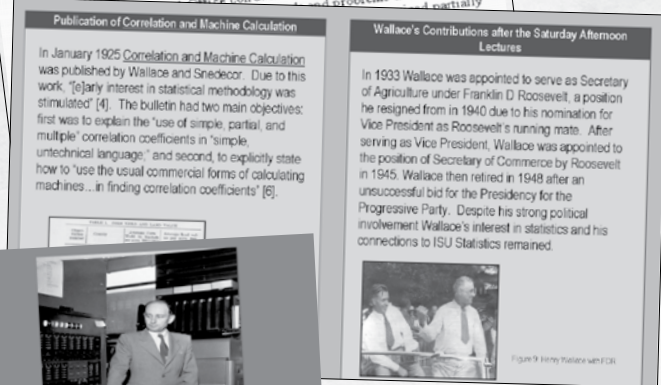
The ASA collection contains 195 boxes of material, including business meeting minutes, handbooks, photographs, lectures and symposia, sesquicentennial souvenirs and other artifacts, collections from famous statisticians ... The list goes on for 65 printed pages. However, you can search the online listing at www.lib.iastate.edu/spcl/manuscripts/MS349.html to see if the collection has what you are interested in. Once you have located an item, you should read the reproduction information at www.lib.iastate.edu/spcl/services/reproduction.html before ordering.

You may request your copy by either calling the special collections department at (515) 294-6672 or sending an email to spclref@iastate.edu. Response time and cost vary. Of course, you can drop by the library to look at the materials in person if you are in the area.

Treasures from the ASA Archives



To deal with the rising population of the capital city of Karachi, the National Housing and Development Agency of Pakistan established the community of Korangi as a pilot project for the resettlement of over 15,000 families from the Pakistan-India partition. In December 1960 and January 1961, students of the University of Karachi conducted the Socio-Economic Survey of Korangi to identify the problems associated with the settlement.



Publication of Correlation and Machine Calculation

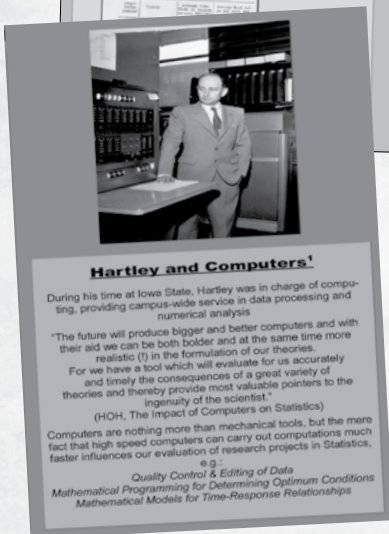
In January 1925 *Correlation and Machine Calculation* was published by Wallace and Snedecor. Due to this work, "tefany interest in statistical methodology was stimulated" [4]. The bulletin had two main objectives: first was to explain the "use of simple, partial, and multiple" correlation coefficients in "simple, untechnical language" and second, to explicitly state how to "use the usual commercial forms of calculating machines...in finding correlation coefficients" [6].

Wallace's Contributions after the Saturday Afternoon Lectures

In 1933 Wallace was appointed to serve as Secretary of Agriculture under Franklin D Roosevelt, a position he resigned from in 1940 due to his nomination for Vice President as Roosevelt's running mate. After serving as Vice President, Wallace was appointed to the position of Secretary of Commerce by Roosevelt in 1945. Wallace then retired in 1948 after an unsuccessful bid for the Presidency for the Progressive Party. Despite his strong political involvement Wallace's interest in statistics and his connections to ISU Statistics remained.



Figure 9: Henry Hurler with ECG



Hartley and Computers!

During his time at Iowa State, Hartley was in charge of computing, providing campus-wide service in data processing and numerical analysis.

"The future will produce bigger and better computers and with their aid we can be both bolder and at the same time more realistic (!) in the formulation of our theories. For we have a tool which will evaluate for us accurately and timely the consequences of a great variety of theories and thereby provide most valuable pointers to the ingenuity of the scientist."

(HOH, *The Impact of Computers on Statistics*)

Computers are nothing more than mechanical tools, but the mere fact that high speed computers can carry out computations much faster influences our evaluation of research projects in Statistics.

e.g.,
Quality Control & Editing of Data
Mathematical Programming for Determining Optimum Conditions
Mathematical Models for Time-Response Relationships

Three of the posters created by students using the ASA archives. From the top: Luvenia N. Hellams' poster highlighting Dorothy Cooke, Laura Hildreth's poster highlighting Henry Wallace, and Kristian Schmidt's poster highlighting H. O. Hartley.

ASA Elections Randomization Tables

Randomization table and instructions for how to use the table to randomly order names on ASA election ballots circa 1960. Records, MS 349, Box 29, Folder 1, Special Collections Department, Iowa State University Library.

To find this and other treasures from the archives, visit www.lib.iastate.edu/spl/manuscripts/MS349.html. If you have questions, email spclref@iastate.edu or call (515) 294-6672.

and became an instructor in the newly formed department of statistics in 1949. After leaving Iowa State, she went on to focus on sample surveying techniques within developing nations such as Pakistan, the Philippines, Jordan, and Vietnam.

Kristian Schmidt chose H. O. Hartley for his poster, partly because Hartley was born in Germany (like Schmidt). Hartley was an interesting statistician, poet, and great believer in the use of computers and how they were the wave of the future in analysis (and this opinion was expressed before the early 1960s). He also had a sense of humor.

I have barely scratched the surface of the six posters, let alone the amount of information available about statisticians and statistics in the ASA archives. The posters can be found at ISU; however, you will need to contact the special collections department to get a PDF of one of them. You also can contact me at patricia.english@pfizer.com. ■

StatAid Offers Statistics for Human Rights

Michael Kisielewski

“A network of human-rights organizations in Zimbabwe has sought our help in building its capacity for conducting statistical analysis and using data to advance its work. A ‘typical’ workweek has begun ...”

It’s Monday morning and staff in Maryland are mulling over a project proposal to explore the application of geographic information systems to documenting human-rights violations in Sierra Leone. As we sift through a large data set on human-rights abuses in western Africa, we ponder the statistical approaches that can be used in our proposed analysis. Meanwhile, 9,300 miles from Washington, DC, in Zimbabwe, our executive director is putting together a stack of handbooks and technical manuals in preparation for a training session she will be conducting. A network of human-rights organizations in Zimbabwe has sought our help in building its capacity for conducting statistical analysis and using data to advance its work. A ‘typical’ workweek has begun ...

Nominations Sought for Impact Award

AcademyHealth has issued a call for nominations for the sixth annual Health Services Research Impact Award, which recognizes outstanding research that has been successfully translated into health policy, management, or clinical practice and, as a result, had a positive impact on health and health care.

The lead researcher of the winning impact will receive \$2,000, and the research will be disseminated widely as part of AcademyHealth’s ongoing effort to promote the health services research field.

The deadline for nominations is July 30. For a nomination form or more information about eligibility requirements and selection criteria, visit www.academyhealth.org/awards/hsrimpactnominations.htm. Questions may be addressed to Patrick Burbine at Patrick.burbine@academyhealth.org or (202) 292-6738. ■

For decades, statisticians—and ASA members in particular—have been plying their trade to promote human rights and advance humanitarian causes. Through a close partnership with the Science and Human Rights Program of the American Association for the Advancement of Science, the ASA’s Committee on Scientific Freedom and Human Rights has assisted in situations where statisticians have been denied fundamental freedoms and provided expertise in analyzing human rights violations data.

More recently, the efforts of Statisticians Without Borders and the Special Interest Group on Statistical Volunteerism have culminated in assistance trips to Haiti, questionnaire and sample design assistance to the Inter-American Development Bank, and even basic data entry for health and human rights surveys. By and large, those efforts have been pro bono. However, pro bono efforts aren’t always feasible, especially when a project requires a substantial amount of time, effort, human resources, and expertise in complex human-rights questions.

Some statisticians, such as Mary Gray at American University, have focused a major portion of their research on humanitarian and human rights concerns, helping nurture a longer-term agenda of improving human rights outcomes through empirical evidence. Meanwhile, nonprofit organizations such as the Human Rights Data Analysis Group (HRDAG) at Benetech have advanced the science of human rights violations data analysis and will continue doing so.

Despite these efforts, the humanitarian and human rights communities still have many statistical needs that aren’t being met:

Organizations that focus on human-rights concerns typically do not have sufficient in-house capacity for more than basic summary statistics. Although initiatives such as HRDAG can offer strong technical assistance on large projects requiring sophisticated statistical methods, few statisticians are available to provide basic capacity-building support to the vast array of small, local human rights advocacy groups (and larger, national groups as well).

Research on best methods for human rights violations data collection is sparse and poorly funded. Most advances on appropriate methods result from “on-the-fly” innovations made during existing data collection and analysis projects.

Thus far, most of the statistical and other quantitative work on human rights violations has focused on civil and political rights, but there is a great need for improvement of data collection and analysis related to economic, social, and cultural human rights, such as the right to food, housing, shelter, education, and health.

For all those reasons and more, StatAid was created.

StatAid is a 501(c)(3) nonprofit organization with a permanent staff of three, an adjunct staff member, multiple interns and volunteers, and a board of directors made up of statisticians who have been involved directly in human rights work for decades. Its mission is to:

Provide affordable statistical consulting services to nonprofit organizations, nongovernmental organizations, and international and national governments and institutions, with a specific focus on organizations that promote, defend, and/or monitor human rights and humanitarian causes

Participate in and initiate research that improves survey methodology and statistical methods for collecting and analyzing data related to human rights and humanitarian concerns

Offer statistical and survey methodological training to the types of organizations listed above that wish to expand their knowledge of and ability to use statistical and survey methodology, and, in so doing, serve as a capacity-building resource for those organizations

Since its inception in July 2009, StatAid has undertaken several projects. For example, it used generalized estimating equations to explore predictors of development levels for the United Nations Human Development Programme. It performed complex sample design and analysis for human rights violations surveys in Africa for the Center for Disaster Assistance and Humanitarian Medicine. StatAid also is working with high-school and college students in the greater DC area, providing internship experiences and introducing students to policy planning based on empirical evidence.

StatAid's long-term goals include providing statistical capacity building to domestic and international human rights and humanitarian groups, engaging in research on best methods for collecting and analyzing human rights violations data in various contexts, and being readily available on a consulting basis to organizations that would benefit from its services, regardless of their ability to fund the work.

Thus far, the majority of StatAid's support has come from individual donations and fees charged

for its consulting services. Although foundation grants will ultimately provide the majority of StatAid's funding, individual donations are greatly needed—especially during this initial growth phase. Individual donations offset expenses for which foundation funding is scarce or nonexistent, and for which consultation fees simply cannot be charged. For example, StatAid's outreach efforts to small, subnational, nongovernmental organizations with little funding depends on individual donations, as does the ability to accept and mentor high-school and college students.

For years, statisticians and quantitative social scientists have been part of a rich tradition that has supported the advancement of human rights and humanitarian causes. StatAid was born out of the desire to continue—and enhance—that tradition. To support StatAid by volunteering, email probono@stataid.org. To donate funds, visit www.stataid.org or send a check (payable to StatAid) to 6930 Carroll Ave., Suite 420, Takoma Park, MD 20912. Donations are 100% tax deductible. ■

OLKIN RECEIVES ZELEN AWARD Nominations Sought for Next Year

The department of biostatistics at the Harvard School of Public Health named Ingram Olkin the recipient of the 2010 Marvin Zelen Leadership Award in Statistical Science. Olkin, professor of statistics and education and CHP/PCOR fellow of the department of statistics at Stanford University, delivered a lecture titled “Measures of Heterogeneity: Diversity and Inequality” on May 21 at Harvard University.

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

The award recognizes an individual in government, industry, or academia who, by virtue of his/her outstanding leadership, has greatly affected the theory and practice of statistical science. While individual accomplishments are considered, the most distinguishing criterion is the awardee's contribution to the creation of an environment in which statistical science and its applications have flourished.

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

All nominations must be received by November 15.

Statistician's View Given at Congressional Briefing on Climate Science



Richard L. Smith of The University of North Carolina speaks during the congressional briefing "Climate Science: Key Questions and Answers."

Richard L. Smith of The University of North Carolina presented a statistician's viewpoint during a May 11 congressional briefing, titled "Climate Science: Key Questions and Answers." The briefing, sponsored by the ASA and 12 other science organizations, was organized to address questions raised recently on the science of climate change.

Smith began with a slide show about the role statisticians play in climate change research. He noted that many criticisms of climate change research in the news recently are not new and that robust criticism is a natural and necessary part of the scientific process. He did agree that climate science would benefit from a fuller and more open discussion in which differences of scientific viewpoint are addressed as part of an ongoing scientific process.

Smith illustrated his points with the "hockey stick" temperature time series and statistical analyses of claims that global mean temperatures have decreased since 1998. From his temperature trend analysis, he concluded there was no evidence of a decrease in temperatures post-1998. In fact, allowing a change in slope in 1998, the analysis showed the temperature trend increases after 1998, more so after adjusting for El Niño.

Addressing the hockey stick controversy—a critique of the statistical methods in the 1998–1999 analysis of Michael Mann, Raymond Bradley, and Malcolm Hughes showing the temperature time series from tree ring proxy data having a hockey stick shape—Smith said subsequent authors showed the basic hockey stick shape to be valid. He illustrated this using the "principal components analysis," in which the hockey stick shape emerges as one includes higher components, which are necessary for proper application of this technique.

Smith concluded his talk with slides about data access and peer review. Regarding the former, he noted, the "climate science community is already one of the most open about making data available to the rest of the scientific community and the general public." Concerning peer review, Smith urged climate skeptics to publish their results in scientific journals, rather than on blogs and other unofficial outlets, and emphasized the role journal editors and reviewers must play to realize this.

Richard Alley, an earth scientist from Penn State, and Warren Washington, an atmospheric scientist and climate modeler at the National Center for Atmospheric Research, also spoke.

Washington explained peer review, the process for the Intergovernmental Panel on Climate Change reports, and the role of skeptics. He also discussed the then yet-to-be-released America's Climate Choices reports from the National Academies and other upcoming National Research Council reports. He closed with a slide on measures to make climate change research more trustworthy, which touched upon transparency, data access, reproducibility, and the quality of scientific information provided to policymakers.

Alley presented the case that with high scientific confidence, humans are raising carbon dioxide levels—which is warming the climate—and changes to date are small compared to what can be expected if action is not taken. Using the analogy of the scientific evidence being a braided rope, rather than a single hair, he described high scientific confidence as having the following attributes:

- No single mistake, or small set of mistakes, could notably change the results
- The results do not depend on any single fact, data set, model, analysis, investigator, or laboratory

Instead, major results depend on multiple lines of evidence from many investigators and labs, collected in many ways and independently assessed by many groups.

Presentation slides and videos of the talks are available at www.amstat.org/outreach/climatescience.cfm. ■

NC Universities Awarded NIH Grant

A team of statisticians and clinicians from The University of North Carolina at Chapel Hill (UNC), Duke University, and North Carolina State University (NCSU) was recently awarded a \$12.5 million, five-year P01 Research Program Project grant from the National Cancer Institute (NCI). The grant application, titled "Statistical Methods for Cancer Clinical Trials," began on April 1 and supports a major collaborative, multidisciplinary effort called the Innovative Methods Program for Advancing Clinical Trials (IMPACT).

IMPACT will take advantage of the concentration of statistical and clinical researchers across the three institutions, as well as

the highly rated cancer centers at UNC and Duke, to develop and implement state-of-the-art statistical techniques for trial design and analysis. Led by Michael Kosorok of UNC, Marie Davidian of NCSU, and Stephen George of Duke, the project also involves numerous other faculty, including Sin-Ho Jung of Duke, Anastasios Tsiatis of NCSU, Joseph Ibrahim of UNC, Danyu Lin of UNC, and Jianwen Cai of UNC.

The investigators will collaborate across the three institutions on five integrated research projects that tackle statistical challenges posed by complex clinical endpoints, missing data, meta-analysis and comparative effectiveness research, identification of diagnostic markers, the goal of personalized medicine, and development of

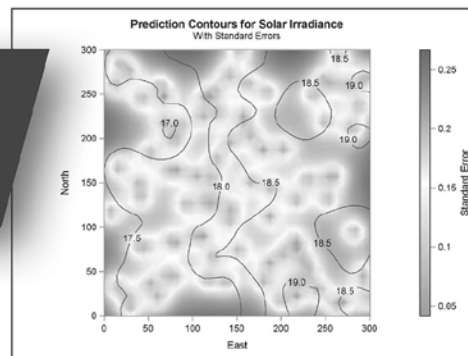
optimal sequential courses of treatment.

The overarching objective is to make significant, innovative contributions to cancer trial design and analysis methods that have the potential to improve the efficiency and speed with which new therapies reach clinical practice. However, focus will be placed on development and dissemination of professionally designed software that implements new methods. The software will be made freely available, along with technical reports and program updates, on a dedicated program website now under development.

The program also will sponsor an annual research symposium, to be held in Research Triangle Park, North Carolina. ■

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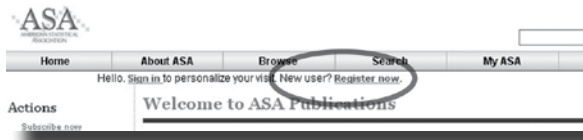
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Journal of the American Statistical Association



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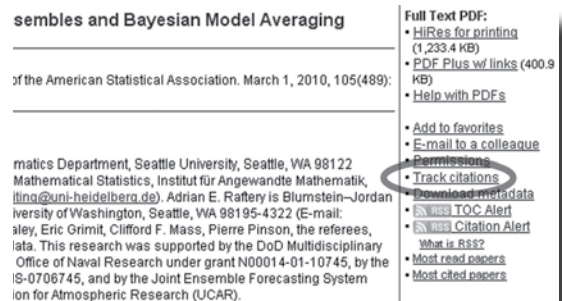
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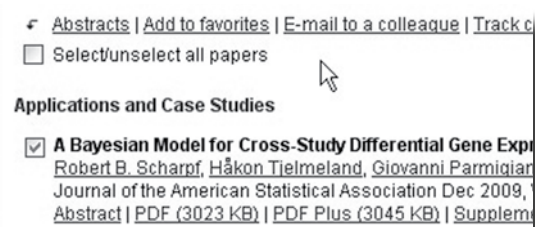
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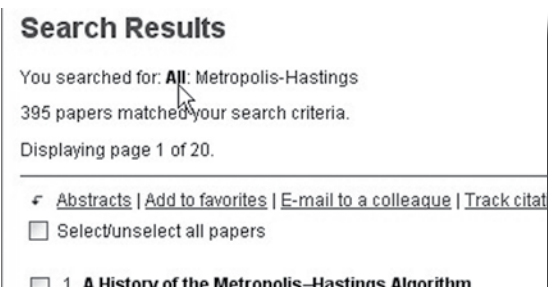
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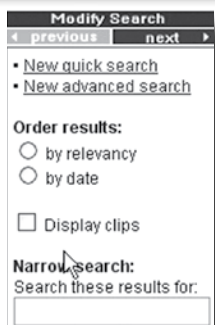
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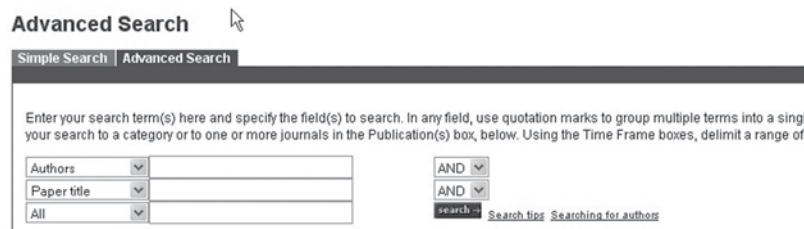


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Next to the basic Search button, you'll see the Advanced Search link. This lets you conduct a much more refined search.



Select one or more fields for your search—all, abstract, article title, keywords, authors, publication year, affiliations.

To search with multiple fields, choose one of three search terms to join the fields together: AND, OR, NOT.

You can search all the journals or choose a single journal. To choose multiple journals, hold down the CTRL key while clicking on titles.

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If you find that your library no longer subscribes to an ASA journal that is critical to your institution's mission, just go to that title's page and click on Recommend This Title to Your Librarian. ■

Special Interest Group

SIGMEDD Outlines Medical Devices Sessions at JSM

Arkendra De

There will be a SIGMEDD meeting at JSM this year on August 2. Anyone interested in medical devices and diagnostics is welcome to attend. Check the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for the updated time and location.

The term “medical devices” incorporates many products, including heart valves, pacemakers, artificial joints, maggots, laboratory tests for diagnostic medicine, and software for medical decisionmaking. To assess performance for such a heterogeneous group requires a wide spectrum of trial designs, including Bayesian and adaptive. Many of the trial designs differ from the classical drug trial setting, since randomization is not always feasible. In addition, laboratory tests have a

unique set of challenges, and they have gained increased prominence due to the burgeoning interest in personalized medicine.

JSM 2010 attendees can learn about the statistical issues of medical devices and diagnostics at any of the following nine topic-contributed and invited sessions:

Topic-Contributed

- Statistical Methods in Medical Device Studies
- Statistical Considerations in the Design and Conduct of Medical Device Studies
- Challenging Statistical Issues in Medical Device Trials
- Adaptive Design for Drug/Diagnostic Combination Trials
- Challenges and Methods for Evaluating Diagnostic Devices and Medical Device Software
- Data Analysis Issues in Medical Device Studies

Invited

- Statistics and Development of Personalized Medicines
- Bayesian Approach for Safety and Efficacy Analyses
- Risk Stratification Markers: Applications to Public Health and Clinical Medicine

JSM is not the only forum for statisticians interested in medical devices and diagnostics. The Statistical Interest Group for Medical Devices and Diagnostics, SIGMEDD, has been functioning as an ASA special interest group for three years. SIGMEDD brings together statisticians who share an interest in statistical challenges in medical devices and diagnostics.

The main conduit for communicating SIGMEDD’s activities is its website at www.amstat.org/sections/sigmedd. Statisticians interested in medical devices and diagnostics can use it to track activities and communicate with others interested in statistical issues for medical devices. ■

FREE Career Development Seminar *Statistics Careers in Innovation-Driven Organizations*

Christy Chuang-Stein, Executive Director, Statistical Research and Consulting Center, Pfizer Inc.

Roger Hoerl, Head, Applied Statistics Laboratory, General Electric Global Research

Ralph O’Brien, Professor, Department of Epidemiology and Biostatistics, Case Western Reserve University

Susan Paddock, Head, Statistics Group, RAND Corporation

Chris Volinsky, Executive Director, Statistics Research AT&T Labs-Research

2:00 p.m. August 1, 2010

Sponsored by the ASA Committee on Career Development

Chinese Delegation Visits ASA, NC State, SAS/JMP

Adozen deans, department heads, and statistics faculty members from China met with ASA President Sastry Pantula on May 3. The visitors included Hong Ji, Jing Ruan, and Jie Yan of Capital University; Shucui Ma of Liaoning University; Baojun Zhang and Jingyi Ma of Central University; Jingzhu Du of Inner Mongolia College; Xiaofei Zhang of Shandong University; Zhiqiang Pang of Lanzhou University; Hong Liu of Zhongnan University; Shangxiong Meng of Beijing Wuzhi University; and Yi Guo of The Ohio State University.

Jian Cao, John Sall, Jianfeng Ding, and Bryan Yan of SAS/JMP, along with several faculty members from the North Carolina State University statis-

tics department, participated in the meeting. NC State Dean Dan Solomon welcomed the delegation and told the history of applied statistics at the university.

Pantula spoke about the ASA's education initiatives and summarized the stated goals from a number of applied statistics programs in the United States, presenting key features of good master of applied statistics programs. Visitors also heard about the master of analytics program at NC State.

Sall hosted a welcoming dinner, at which ASA Past President Sally Morton and NISS Director Alan Karr spoke.

On May 4, the visitors learned about JMP software, Enterprise Miner, JMP/SAS integration, and JMP Academic Partnerships,



Hong Ji, dean of Capital University of Economics and Business, greets ASA President Sastry Pantula.

before going for a sightseeing tour in New York.

China will invest in a number of universities, helping them develop about 20 master of applied statistics programs during 2011 and more in the near future. ■

NISS, SAMSI Win InSpire Award

The National Institute of Statistical Sciences (NISS) was recently awarded the North Carolina Public Relations Society of America InSpire Bronze Best of Category Award for the social media category.

Bronze InSpire awards acknowledge exceptional public relations achievements and the individual components of campaigns. A panel of experts associated with the Public Relations Association of Mississippi evaluated the submitted entries.

NISS and its sister institute, the Statistical and Applied Mathematical Sciences Institute (SAMS), have built a following of statisticians and applied mathematicians from around the world on the @NISSAMSAMI Twitter account. This account has 566 followers, most of whom are statisticians and applied mathematicians.

NISS and SAMS use Twitter to promote research projects, papers reporting research,

workshops and events, and other information of interest to their target audience. They also post photos using Twitgoo, which entices more people to read about events and projects.

Neither institute, alone, has enough information to tweet, so NISS and SAMS employ the one account to promote both institutes at the same time. During conferences and workshops, tweets are delivered about the speakers. Later, URLs are offered from which people can download copies of speakers' talks.

"We have been amazed at the amount of response we have received from our Twitter account," said Jamie Nunnally, director of communications for NISS and SAMS. "At wefollow.com, @NISSAMSAMI is now rated as the #1 most influential Twitter account for statistics."

The award was presented on May 5 at the Brier Creek Country Club. Bill Leslie, anchor for WRAL News, was the master of ceremonies. ■

Report an Extreme Disappointment

Keith Crank, ASA Research and Graduate Education Manager



Crank

The *Path Forward: The Future of Graduate Education in the United States* is a recent report from the Educational Testing Service (ETS) and Council of Graduate Schools (CGS) (see www.fgereport.org). Released in April 2010, the report attempts to provide an argument for increased attention to graduate education and recommendations for academia, industry, and government.

Since both ETS and CGS have a vested interest in graduate education, this report cannot be considered to be objective, but it could be a useful document. In statistics and biostatistics, it is certainly the case that graduate education is of utmost importance and we need to produce more graduates with both master's and PhD degrees.

The report makes recommendations for universities, business and industry, and government. For universities, it suggests more attention be paid to recruiting the most talented undergraduates, more effort be made to reduce attrition, and more time be devoted to preparing students for careers outside of academia.

The report recommends that business and industry do more for employees (e.g., tuition reimbursement programs and lifelong learning accounts) and nonemployee students (e.g., internships, graduate fellowship programs, and endowed 'chairs' for graduate students).

For the federal government, the report asks for additional funds for graduate students in the form of fellowship programs, loan forgiveness, and amended tax policies to make graduate fellowships tax exempt. It also recommends funding at the master's level, in addition to the doctoral level.

It's not clear whether these are appropriate recommendations, since the use of data in this report is poor and often inconsistent. The author(s) don't seem to know the difference between counts and percentages. And, much of the time, they perform what I would call a "mixed metaphor of data use." By that, I mean they present a piece of information in the form of a data point, and then try to use it to make an argument that is unrelated to the piece of data.

As an example of inconsistency, I refer to Page 14. At the top of the page, the report mentions a 7% increase in the age cohort for graduate students (probably ages 25–35 based on other information in the report) over a 10-year period (either 2000–2010 or 1997–2007; it's impossible to tell). At the bottom of the same page, the age cohort changes to include those who would be undergraduates and the time frame

is 1995–2005. For this age cohort, they get a 13% increase in the 10-year period. It's not clear why they couldn't use the same time period and age cohort, and they give no explanation for the difference.

On page 26, they discuss "stay rates," the percentage of international students receiving a PhD in the United States who are still in the United States five years later. The report says, "... if the mix of international graduate students is increasing, a proportional increase in the stay rate is needed to keep the total number of doctoral graduates living in the [United States] constant." Since there has been an increase in PhD degrees awarded by U.S. institutions to both U.S. and foreign students, the stay rates would need to decrease to keep the total number of doctoral graduates living in the United States constant. (I don't believe we want to keep the total number of doctoral graduates living in the United States constant. In statistics and biostatistics, demand is increasing, so we need to produce more PhDs.)

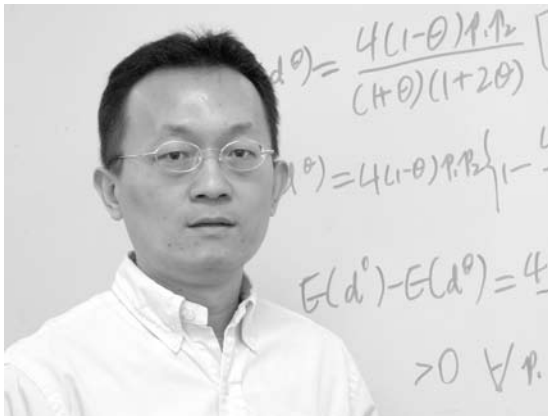
My final example from the report is at the bottom of Page 7. The report says, "For example, only slightly more than one quarter of students receiving an undergraduate degree in 1992–1993 had earned a graduate degree, either master's or doctorate, or a first professional degree 10 years later, despite the fact that graduate enrollments have risen by about 50% since the early 1980s (from 1.4 million to 2.3 million)." The report seems to imply that the fraction (one quarter) in the first part of the sentence should be comparable to the percentage (50%) used in the second part of the sentence, even though they are fractions/percentages of totally different objects. (And an increase from 1.4 million to 2.3 million is an increase of almost 65%.)

I was excited to hear about this report, as someone who believes graduate education is important. I had hoped it would provide additional reasons to increase support for graduate students. Unfortunately, it did not. Although it is likely to be cited extensively by advocates of graduate education, this report is a mishmash of inconsistent and sometimes contradictory information. I was extremely disappointed. That it comes from the ETS, which is supposedly testing our students on their ability to reason, and the CGS, which is expected to train our graduate students, is even more disappointing.

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. ■

Member Spotlight

Xiaoyi Gao



Gao

I earned my PhD in bioinformatics-statistics from North Carolina State University (NCSU) in 2006. Unlike most of the NCSU statistics students, I did not have any statistics or mathematics background before I started my studies in 2002. However, thanks to the rigorous statistics training I received, I am now a three-time winner of the Section on Statistics in Epidemiology's travel award for my work in population stratification (2006) and multiple testing correction (2008) and on a theoretical proof that relates to allele sharing distance (2009). I always feel grateful for my training, without which I could never be who I am now.

I left China and came to the United States because I believed I could and should get a better education. My first year at NCSU was busy and challenging. I noticed that a lot of my classmates had much more statistics background than I did. Originally, I was seeking an MS degree in bioinformatics and had never thought about statistics. My primitive understanding of statistics was just some formulas, and I had never asked where they were from. But the bioinformatics program at NCSU is inside the department of statistics, which gave me an opportunity to make a lot of statistics friends. Most importantly, I quickly fell in love with statistics.

I spent most of my first year at NCSU making up for my lack of quantitative training. The educational environment was quite friendly, and all my friends were willing to share their statistics knowledge with me. During my second year, I started to be able to compete with my statistics classmates.

After finishing an MS degree in bioinformatics-statistics in 2003, I pursued a PhD in the same program under the direction of Bruce Weir. I was given an opportunity to independently come up with ideas for my dissertation, which was challenging. I used to

joke with my friends that I had already started my post-doc training, even before I received my PhD.

To nobody's surprise, some of my ideas crashed and burned. However, it was during this period that I found I could excel in statistical genetics and developed the ability to think independently, which was crucial for the success of my later research. The special training was rewarding. I published four first-author, peer-reviewed articles and won three ASA travel awards based on my dissertation work.

My research journey was not always smooth. I remember that tears of joy came to my eyes when my first English-language research article was accepted. It was at that moment all my hard work, frustration, and tough experiences paid off. One of my papers was rejected four times; however, it finally came out after more than two years of revisions. On one hand, the rejection was hard to swallow. But on the other hand, it made my work better. I learned to never give up.

In addition to my rigorous statistics training at NCSU, I made many friends that I continue to maintain. I also had several internship opportunities that paved the way for me to derive ideas for solving real-world problems.

After I graduated, I worked as a post-doc at Duke University Center for Human Genetics and then at the Miami Institute for Human Genetics. I am now faculty at the Washington University School of Medicine.

In my spare time, I enjoy playing with my baby daughter and watching her grow. I still remember when I was a statistics toddler. It was at NCSU that I started to walk, to run, and to jump. As I wrote in my dissertation, "I found my career, passion, and confidence at NCSU. I am proud of being one of the NCSU statistics alumni." I am also one of you, the family of ASA. ■

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.

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ASA-SIAM Series

Book Series Returns to JSM

The ASA-SIAM series will be housed at booth #404 in the exhibit hall during JSM 2010, where attendees can shop for books at 20–30% off list prices and get free shipping.

In past years, attendees were invited to visit the booth and complete a short survey about the book series in exchange for a giveaway such as a tote bag or flashlight. This year, the survey tradition continues, but instead of a small gift, completing a survey will entitle attendees to an entry into a raffle for an iPod touch. The winner's name will be chosen on August 4 (entrants do not need not be present to win).

For those considering a book project of their own, Sara Murphy and some of the members of the series' editorial board will be onsite to talk about ideas and how to go about submitting a proposal. Books appropriate for the series include research monographs, introductory texts, and graduate-level textbooks on topics of interest to statisticians, biostatisticians, applied mathematicians, engineers, and scientists. More information about the series is available at www.siam.org/books/series/sa.php. To arrange a time to talk about a project, contact Murphy at murphy@siam.org prior to JSM. ■

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Careful Statistical Reasoning Can Provide Support for Supreme Court Decisions

Joseph L. Gastwirth and Qing Pan

This winter, the Supreme Court considered the case of Diapolis Smith, an African-American man convicted in 1993 of second-degree murder by an all-white jury in Kent County, Michigan. Smith requested a new trial, arguing that minorities were under-represented on venires in the county. The statistics employed in *Berghuis v. Smith* exemplify the increasingly important role statistical evidence plays in legal cases and the larger role statistical inference could play.

Two Supreme Court cases provide guidance on jury representation. In *Taylor v. Louisiana*, the Supreme Court stated that the Sixth Amendment guarantees a criminal defendant the right to a trial by an impartial jury drawn from a fair cross-section of the community. Subsequently, in *Duren v. Missouri*, the court stated three criteria a defendant must prove to establish a *prima facie* case: (1) a “distinct group” is identified, (2) the group was not fairly represented on the jury venires, and (3) the aspect of the jury selection process creating the “systematic exclusion” or under-representation of the group needs to be specified.

Statistical evidence is essential in the second step and often useful in the third. If the defendant’s evidence meets these criteria, the state must justify the practice in question by showing it advances a substantial societal interest (e.g., ensuring the care of young children).

In *Berghuis v. Smith*, the defendant relied on statistical evidence to satisfy the second and third criteria. African Americans formed 7.28% of Kent County’s age-eligible population, but 6% of the jury pool during the six-month period up to and including his trial. While the defendant suggested several factors caused the “systematic under-representation,” a major one was that potential jurors were first assigned to local courts, rather than the circuit courts hearing felony cases. A change in the system soon after the defendant’s trial allowed this argument to be checked. During the following year, African Americans formed 6.17% of the jury pool.

Courts have relied on three statistical approaches to assess under-representation (see Assessing Under-Representation). The Michigan Supreme Court noted that the U.S. Supreme Court had not specified the preferred approach; therefore, courts should consider the results of all three tests when the parties submit sufficient evidence.

That court gave the defendant the benefit of the doubt on the under-representation issue, but decided he had not shown that the assignment process caused the systematic under-representation. The 6th Circuit Court reversed the Michigan Supreme Court. Its opinion concluded that under-representation was demonstrated because the CD measure was -18% during the first period when the defendant’s trial was held and -34% the month of his trial. It accepted testimonial evidence that, at the time of the defendant’s trial, the process of sending minorities to local courts before the circuit courts led to their systematic under-representation on circuit courts.

Neither party submitted a standard deviation analysis, although an amicus brief to the U.S. Supreme Court from a group of academics that included statisticians did. That brief questioned the use of statistical testing in the context of fair representation because the number of individual jurors called for possible service can be so large that minimal deviations between the minority fraction of the pool and their fraction of the eligible population would be deemed significant. The amicus brief recommended that the court use the CD measure and that a $CD = -15\%$ or less be a general threshold, which should be modified to -25% when the minority group formed less than 10% of the jury-eligible population.

At the U.S. Supreme Court, the defendant argued that the CD was the appropriate measure of under-representation, while the state argued that the court should adopt a rule that an AD of at least 10% is required. This AD criterion has been criticized, as minorities forming less than 10% of the jury-eligible population could be totally excluded. The court noted that the magnitude of under-representation in this case was substantially less than in *Duren v. Missouri*, where the shortfall in female jurors met all three statistical criteria. The opinion reversed the 6th Circuit Court, which had relied solely on the CD measure. The U.S. Supreme Court reinstated the Michigan Supreme Court’s decision because it was far from “unreasonable” in applying the precedential cases that the standard federal courts should use under a 1996 law.

An important aspect of the statistical evidence that was not called to the attention of the courts is that the number of African Americans in the jury

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Qing Pan is an assistant professor of statistics at The George Washington University and a researcher at the biostatistics center.

Assessing Under-Representation

Courts have relied on three statistical approaches to assess under-representation. All compare the minority group's proportion, p , of venire members to their fraction, π , in the eligible population.

The first approach, absolute disparity (AD), considers the difference $p - \pi$, expressed in percentages. For the two periods, $AD = -1.28\%$ and $AD = -1.11\%$, respectively.

The second measure, comparative disparity (CD), is AD/π , or the relative shortfall. The CDs are -18% and -15% for the periods.

The third approach is based on a standardized test statistic z , the ratio of the difference between the observed and expected numbers of minority members and its standard deviation. Courts call this method "standard deviation analysis," and shortfalls of two to three standard deviations, corresponding roughly to statistical significance at the .05 or .01 level, support the defendant's claim of under-representation.

pool was an estimate. The reason for this is that the Michigan Department of Motor Vehicles' database, from which potential jurors are selected, does not record racial identification. The defendant's statistician used the residence pattern of members of the jury pool to estimate their race. This was done for each of the 112 census tracts by assuming the fraction of African Americans among the individuals from a tract equalled their fraction of the jury-eligible residents of that tract.

To conduct a formal statistical test employing the difference between the estimated number of African-American individuals in the jury pool and its expected number, based on the census data for the county, we calculated its standard deviation. It differs from the standard deviation of the binomial model, which is typically used in jury discrimination cases. Applying this test to the data for the two periods showed that the shortfalls in African-American jurors in the first and second periods were found to be equivalent to 2.45 and 3.17 standard deviations, respectively. These statistically significant results should satisfy the second *Duren v. Missouri* criterion.

To assess whether the defendant's claim that differences in juror assignment in the two periods created the shortfall, one would calculate $CD1 - CD2$ and find that the standardized form of statistic- T is .3, with a one-sided p -value of .382. This substantiates the court's finding that the difference between the 18% CD and the 15.1% CD in the two periods was insufficient to meet the third *Duren v. Missouri*

criterion (i.e., the original assignment system had a significantly adverse impact on the representation of African Americans on the circuit court venires).

Another statistical point should be noted. Many locales exclude individuals who don't understand English, or felons still on parole from serving on juries; the minority fraction, π , obtained from the census data is not quite accurate. This could be accounted for by analyzing the minority fraction of jury questionnaires before individuals are excused from service.

Our experience with this case also suggests the judiciary would benefit from a better understanding of fundamental concepts of hypothesis testing. Both the U.S. and Michigan Supreme Court opinions state, "Standard deviation analysis seeks to determine the probability that the disparity between a group's jury-eligible population and the group's percentage in the qualified jury pool is attributable to random chance." The probability referred to, of course, is the p -value, which is calculated assuming random (chance) selection of the jury pool from the eligible population.

We also believe the concept of power would help inform courts when the size of the available sample is too small to detect a legally meaningful shortfall or is so large that a minor difference would be classified as significant. Consider the "four-fifths" rule used in disparate impact employment discrimination cases in which the ratio of the probability that a jury-eligible minority member is called for service to the corresponding probability of a white should be at least .80. Suppose the court wished to have a high power, say 90%, of detecting a shortfall for this rule. Applying this to *Berghuis v. Smith* for the first period, the power of the usual test—based on the binomial model with $\pi = .0728$ —for a sample of 929 is less than 40%. In such situations, a finding of nonsignificance should not be given much weight by the courts. Had the court been made aware of these considerations, it might have required jurisdictions to preserve data for several years, or at least a sufficient time that the demographic characteristics of an adequate number of potential jurors would be available to check the representativeness of the jury pool.

At the hearing, the sample size issue was actually noted by Justice Sonia Sotomayor. She observed that the sizes of the jury pools in the two periods differed substantially and questioned the soundness of comparing the minority proportions in the two periods. ■

Editor's Note: This commentary is based on a paper submitted for publication in *Law, Probability, and Risk*. The paper contains citations to the articles mentioned here and can be found on the Social Science Research Network at www.ssrn.com.

Congress Appears Gridlocked for Remainder of Year

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

As election-year maneuvering ramps up, congressional progress is slowing to a near standstill. Little is expected to happen other than the Senate reviewing the nomination of Solicitor General Elena Kagan to the Supreme Court. The gridlock affects a number of science-related bills, including some of interest to the statistical community.

Hitting closest to home for the science and technology (S&T) community were the two failures this spring to reauthorize the America COMPETES bill. The original COMPETES acted on the recommendations of the National Academies' *Rising Above the Gathering Storm* report to improve America's competitiveness by increasing basic research funding and improving science and math education. Passing the House in 2007 by 367–57, the bill was a significant bipartisan success. While not expected to have such strong bipartisan support in the House this year, the reauthorization was expected to pass without trouble. The bill, however, was withdrawn by Democrats after a successful effort by Republicans to gut the S&T funding provisions; a subsequent scaled-back version of the bill also failed to pass. The bill finally passed 262–150 on the third attempt.

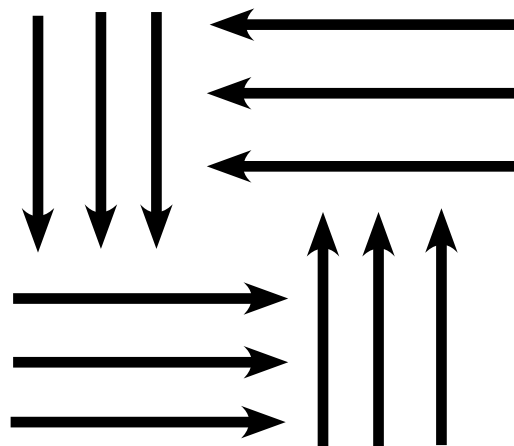
Few expect Congress to finish its appropriations bills before the start of fiscal year 2011 (FY11) on October 1. In fact, most people are speculating about how long into FY11 the continuing resolutions (CRs)—which will fund the government at FY10 levels—will

go and what form the eventual FY11 budget will take.

The National Institutes of Health could be hit hard by an appropriations stalemate, as its budget effectively goes down by \$5 billion—the amount provided as additional funding for both FY09 and FY10 in last year's American Recovery and Reinvestment Act. The hope in the community is that the FY11 budget will have an increase that will offset this drop. While still possible, any increase would not be realized until well into FY11, and Congress would have to find additional funding in a tight fiscal environment to go beyond the administration's requested \$1 billion increase (on the baseline budget.)

The National Science Foundation (NSF) and federal statistical agencies would also be affected by a CR to start FY11, particularly agencies requesting significant increases. (See my April column at http://magazine.amstat.org/2010/04/sciencepolicy_apr10.) If Congress approved the FY11 budgets by October 1 with the increases requested, the planning for and implementation of the increased funding would be most effective. Otherwise, agencies must operate tentatively through the start of FY11, not knowing when they will get their FY11 budgets or what they will be.

The reauthorization of No Child Left Behind, renamed the Elementary and Secondary Education Act (ESEA), now appears more likely to be taken up in the next congressional session.



Chances of a Senate companion bill to the Waxman-Markey climate bill dimmed when Sen. Lindsey Graham (R-SC), who was negotiating a bill with senators John Kerry (D-MA) and Joseph Lieberman (I-CT), withdrew his support to protest Senate majority plans to prioritize immigration reform.

There are other initiatives of interest to the statistical community that may advance. The Senate Homeland Security and Governmental Affairs Committee marked up the Census Oversight Efficiency and Management Reform Act in April, advancing it without opposition (although Sen. Tom Carper (D-DE) said he would address budget issues raised by the Commerce Department once the bill goes to the floor).

Also, the Senate Judiciary Committee made public a draft outline for forensic science reform legislation in early May in response to the National Academies' 2009 *Strengthening Forensic Science* report, which the

Science Policy Actions

The ASA signs a letter supporting a National Institutes of Health FY11 budget of \$35 billion.

The ASA presidents sign letters to North Carolina senators, requesting help in promoting statistical literacy.

The ASA signs letters in support of the reauthorization of the America COMPETES Act.

The ASA president sends a letter to a Department of Transportation official about the lack of statisticians on the Advisory Council for Transportation Statistics.

ASA president sends letter to Senate Judiciary Committee Chair Patrick Leahy regarding his committee's draft outline for forensic science reform.

ASA Board endorsed in April. The draft outline establishes an Office of Forensic Science (OFS) in the office of the Deputy Attorney General and a Forensic Science Commission staffed by OFS. This is in contrast to the Strengthening Forensic Science call for a National Institute for Forensic Science that "must not be in any way committed to the existing system" and "must not be part of a law enforcement agency." The ASA has submitted comments on the outline.

Legislation is also expected for the reauthorization of the Department of Justice and Department of Education Institute of Education Sciences. Anticipating such legislation, 2009 ASA President Sally Morton wrote Attorney General Eric Holder and Education Secretary Arne Duncan last year urging greater autonomy for the Bureau of Justice Statistics and

National Center for Education Statistics in accordance with the National Academies' *Principles and Practices for a Federal Statistical Agency*.

The administration has also been working on a "data synchronization" proposal to facilitate sharing IRS business tax data throughout the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. The proposal could be finalized and proposed to Congress this summer.

Finally, the ASA's K-16 education manager, Rebecca Nichols, and I continue to work toward having a statistical literacy bill introduced as part of our ongoing effort to ensure statistical literacy is promoted in the ESEA reauthorization.

Stay tuned to see how far these initiatives—and the other bills discussed here—advance. ■



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In the Hot Seat: Two Experienced Consultants Discuss Hiring Statisticians

Erin Tanenbaum, ASA Committee on Applied Statisticians

When interviewing for a job in statistics, what do you think the interviewer is interested in learning about you? Do you approach the interview as though you are defending a thesis or taking a high-stakes exam? Or do you see it as a conversation between two people trying to find the right fit? The key to landing the right job is putting yourself in the shoes of the interviewer, determining what qualities are key to succeeding in their workplace, and then tailoring your résumé and interview responses accordingly.

Erin Tanenbaum of the ASA Committee on Applied Statisticians recently interviewed two hiring managers in statistical consulting to find out what it takes to succeed. Some of their answers may surprise you.



Batchner

Mary Batchner, executive director of Ernst & Young's (E&Y) Quantitative Economics and Statistics Group, and Laura Schweitzer, director in PricewaterhouseCoopers' (PwC) National Economics and Statistics Practice, are seasoned statisticians who have hired numerous master's and PhD statisticians over the years. Although similar, their recruiting patterns do differ.



Schweitzer

Batchner: "We're not a huge group, so in the past year, we've only hired one, maybe two, [advanced degree] statisticians, but we are in the process of recruiting two statisticians right now. In addition, there is the normal recruiting process

for about four staff-level quantitative types, but not specifically statisticians, as not all undergraduate programs offer a statistics major."

Schweitzer: "We have probably hired an average of three people per year. [Of that,] I would say about 25% with a PhD, 60% have a master's, 15% are working on a master's, but currently have a BA."

Aside from specific statistical qualities, showing a bit of personality goes a long way in many interview situations.

Schweitzer: "You can't help getting away from personality. After all, you are hiring someone to work with you. So I'm thinking, 'Would I turn to this new person and say "please do this"?' I'm looking for flexibility, confidence. I'm trying to see ... do we gel? Do we have a personal connection? I'm not talking about chit-chat. It can be a shared experience or something statistical. But, can they connect with me through our discussion? This is very important."

Batchner: "At the interview stage, I look for poise; I look for eye contact. It's always good if they have a little humor. Not that it is self-deprecating humor; it shows that they are comfortable enough, poised enough, relaxed enough to offer a little funny remark when you're struggling for words or something like that."

GPA and School

Unlike bachelor's-degree holders, GPA is less important for statisticians with a master's degree and practically irrelevant for PhD candidates.

Schweitzer: "I don't have a cut-off for GPA, but if someone had a low GPA, I'd ask them about it. If it is a PhD candidate, I don't look at the GPA at all because it is assumed that they are going to know their stuff."

Batchner: "If people get into and pass grad[uate] school, their GPAs tend to be pretty good. I think they would drop out if they failed out. It seems to be A, B, or fail. So, I haven't seen a GPA yet at the grad level that I thought was a deal breaker."

The institution also does not matter, although both agreed international degrees may be scrutinized more.

Batchner: "You know, we've had good people from all kinds of schools. I haven't seen better or worse based on the school. A talented person can perform well in any program and come out and succeed."

“Those with the social statistics degree can probably explain things a little better, but in the end, we need people to be able to grow to a point where they can deal with the real-world problems.”

Schweitzer: “We did just hire someone with an international degree. Although I will say that this is the exception, rather than the rule. I feel comfortable interviewing [international degree holders, still] we might think a little bit more about the reputation of the school since we have less experience with those schools.”

The Foundation: Statistical Background

For both Batcher and Schweitzer, statistical training is key.

Batcher: “The first thing I screen for is [whether] they have the right technical training, the right statistical training, and the fundamentals. I also am looking for ‘the more the better’ because, certainly, we would like them to have some modeling exposure, but the solid Mathematical Statistics 1, Mathematical Statistics 2 shows that they have the fundamentals. If they have done well in calculus [then that exemplifies their mathematical skills]. A lot of people come in with courses with statistics, but many are not math based. So, I like to see that they’ve had the math up to a certain base. This may be a holdover for me from my days in the government. I’m most interested in the person with a statistics with the math[ematics background, instead of a statistics for social sciences background]. Those with the social statistics degree can probably explain things a little better, but in the end, we need people to be able to grow to a point where they can deal with the real-world problems.”

Schweitzer: “First thing we are looking for is the appropriate educational training and

background. Within statistics, there are a lot of different things you can do, and some of them we do here and others we don’t. So if someone has a real interest in experimental design, I want to know that because we just don’t do that here. I want to know where their interest lies and how deep their technical skills really are. For example, some people say that they have regression experience, but when you poke a little deeper into what they were doing, they don’t actually understand the analysis that they did. Instead, they took a higher-level approach.”

Tanenbaum asked, “How do you dive deeper on a skills set?”

Schweitzer: “For example, with regression modeling, I want to know if they did any model validation. Did they do any diagnostics with their model? You know, I have interviewed people who have run a regression analysis, but never did any diagnostics. To me, that really says that they didn’t really know that much about what they needed to do.”

Data Analysis

Both PwC and E&Y’s practices rely on working with large data sets. As such, SAS or other database programming skills are important.

Schweitzer: “We have hired people who don’t have any SAS experience. [In those cases,] we like to see that they have at least worked with large data through some other package. [When reviewing their skills,] I ask about the size of the data sets they have worked with. If they are still in school, chances are they have only worked with fake data, which you know is relatively nice and clean data sets. A big piece of the job is getting your data ready for the analysis, and a less amount of time is spent actually doing your analysis.”

Batcher: “I also look for internships and work experience where they’ve learned SAS or other computing packages. Most everyone puts down that they know SAS, but sometimes that means they have taken a class, the instructor has given them code, and they altered the code slightly and ran it. But if they’ve used SAS and actual[ly] written the code themselves—in a real environment —[it] is a plus.”

Both Batcher and Schweitzer mentioned that statistical programming skills are less important with management positions.

Schweitzer: “As you move up, [database programming] largely becomes supervisory. For example, I do not have SAS installed on my laptop. I still need to understand the day-to-day analysis, but working with the data is something that I would delegate.”

Communicating Statistics

Batcher and Schweitzer both find communications skills to be a make-or-break characteristic in the consulting world.

Batcher: “Our clients need to understand [the candidate]. Clients can become very frustrated if they cannot understand the statisticians. When we communicate statistics, there are two things I want to make sure doesn't happen. One is showing off and using too much statistical jargon to our clients. The second thing is adding too many details [when describing an analysis many statisticians say,] ‘Well, first I did this, and then I did this, and then ...’ I prefer a two-sentence explanation or overview in language that would be clear to our clients. In fact, for many of our clients, this is sort of their first encounter with statisticians. So, candidates' explanations should be enough that they get an intuitive grasp, but we don't want to drag our clients through the weeds. [Statisticians] love to throw out ‘this or that, but that would then violate the statistical assumption that blah blah blah,’ which is totally meaningless to the client. So, it seems like we, as statisticians, speak this mystical language and therefore you, as a client, are dependent on me. And that's what I consider to be showing off. You can explain the details, but you need to say it in a different way, such as, ‘Well, we can take a couple different approaches and they each have their own set of mathematical assumptions ... we'll find the best approach which will meet all of the assumptions for this project.’”

Schweitzer: “I'm looking to see that they understand the results of the analysis and understand the implications of the results. If they worked on an interesting project, I'll always ask what the outcome was. I sometimes think that statisticians stop and don't really take that next leap to show what the analysis means, which is important for consulting. It's

not just what test did you apply, but also what was the outcome and what did it mean for your employer or client, and what actions were taken as a result of your analysis?”

Batcher: “Sometimes I might just ask them to explain [a statistical concept like what is a standard deviation]. Sometimes I'm surprised; I'm not sure if it's the nervousness about the situation, but ... they stumble around quite a bit. I think that when people get a little flustered, it might be smart for them to take a deep breath and collect their thoughts instead of just jumping right in without thinking the answer through a bit. Now, if they cannot answer the question, it's not a deal breaker, but if they can do it, it's a plus. I guess we've all been in situations where we botched a simple question. So if everything else is stellar, it won't kill them [but pausing before rambling may increase their chances of success].”

Even before the interview, Batcher and Schweitzer both look for evidence of communications skills.

Batcher: “I look at the cover letter. I look at the résumé on the coursework and sometimes you can tell that they took courses that included writing and that they participated in activities. Also, [work in teaching or] consulting labs are good.”

Schweitzer: “I like to see evidence that a person can talk to a client. So whether that is having some kind of extracurricular activities or work with the community, you know something that shows that they are not just interested in doing their statistical work, because when you are in consulting, talking to a client is one of the most important things you need to do. Yet, finding someone with those skills can be difficult.”

Moving from Analyst to Manager

Both PwC and E&Y have a solid hierarchy that starts with analysts/associates/staff and moves up similar to the following: senior associate, manager, senior manager, director, and partner. Batcher and Schweitzer's groups tend to hire primarily associates through managers, since other positions require a large sales portfolio. Tanenbaum, Schweitzer, and Batcher discussed how Schweitzer and Batcher's search changes based on work experience or level.

Batcher: “Most of what I’ve been thinking about is right out of school. The candidate is finishing in a month or two. They have a couple internships; they have their transcripts. We have an example of a class project; we have their résumé and cover letter and we are looking for three things: (1) a solid foundation, (2) the ability to communicate, and (3) less about specific knowledge. What I am looking for changes at the management rank. At entry management level, do they know how to help someone when they get stuck? At the next level, I want to know that they know how to guide a bigger project. They don’t have to run giant projects; they may just be managing their own work, but they need to know how to pay attention to deadlines or coordinate with clients and take the lead that the project goals are met, including the timelines.”

Schweitzer’s group hires fewer candidates straight from school.

Schweitzer: “I like to see a candidate who has worked in business, since we do business consulting. I think, personally, the thing about coming right out of school is that it takes a little while to adjust and to understand what it means to work, and how you interact with people in the workplace is part of getting up to speed when you first start. So, sometimes if you get someone who has already had that experience, then it allows them to really hit the ground running when they get to you.

“At entry level, I’m looking for time management. How do you juggle multiple deadlines? How do you juggle projects? With more experience, I’m looking for the ability to work with staff to get things done and also to develop the staff so that they can continue to progress in their own careers. I’m also looking for the ability to learn new things [at all levels]. For someone who has worked on the job, how did they get up to speed on a new project? How did they learn new software? I’m looking to see how they learned those new tasks.

“In addition, as you get more experience, you do less hands-on and start taking on more big-picture work.”

Tanenbaum asked, “What is big-picture work?”

Schweitzer: “How do I answer the client’s question? What analysis is appropriate to answer their question? What’s the right way to answer this problem? Then, the ‘how to do’ this analysis is left to lower-level staff.”

Statisticians also have struggles in the consulting world.

Schweitzer: “[At the management level,] I think that a lot of statisticians shy away from working with clients. I actually had someone tell me that they went into statistics because they didn’t want to deal with clients. So, finding someone who not only can be accomplished in statistics, but they also can communicate their work in a way that a client can understand, is very important.

“Another thing I see that is missing is statisticians finding the business purpose of the analysis. So, I think that most statisticians need a little bit more business training, which is why we tend to hire people with work experience. Statisticians often know how to do an analysis, but don’t know how that analysis will actually help the client solve their problems. In addition, I think that a consulting environment can be very stressful, so I ask how people handle themselves under stress. Some people like to do the same thing every single day and others like to have a little variety. Figuring out what type of position the candidate is looking for is really important.”

Batcher: “One transition that is often hard for statisticians is to give up the technical work and do more and more project management and people management. So, that is something that I want to at least talk to people about. ‘Are you aware that as you become a manager, most of the work should be done by people with lower billing rates and a lot of the heavy lifting technically on projects gets pushed down to the staff and senior level because their billing rates are not so high?’

“I think it’s important that they be made aware that as you move into management, your technical abilities are used less and less as [they are] replaced with the role of the guide. I think this is true almost anywhere you work. Since this way of thinking is a change for people, the question becomes will they still be happy with the new role.

“There are a lot of statisticians out there who are very comfortable doing ‘neat’ analyses. For them, making that transition to all these other things [is] not nearly as rewarding, yet they need to find ways to make nontechnical tasks rewarding. And that is often with helping more junior people get where they need to go. There is a lot of discomfort out there as people know

they are very good, that they can do it the best way, the correct way, and then they have to let someone else do it while they only review it and give the others guidance. Letting go is sometimes a difficult transition.”

Master’s vs. PhD

It became clear to Tanenbaum that the choice of degree is completely personal, as both are an asset in consulting. Batcher and Schweitzer’s teams are both staffed predominately with master’s degree holders.

Batcher: “[With a master’s degree,] I like to see a focus on applied statistics and real-world applications. Often times, they have gone for a master’s instead of a PhD because it gets them very quickly into the real world and real-world problems. We consciously have a mix of master’s and PhDs in our group.

“In our world, a person’s degree matters as much for credentials as it does for anything else. Because we sell our credentials, it is nice in a litigation setting if you can say this person has a PhD and a great deal of experience in a particular area. Then, it’s an easier sell. Not that this is the bulk of our work, by any means. In

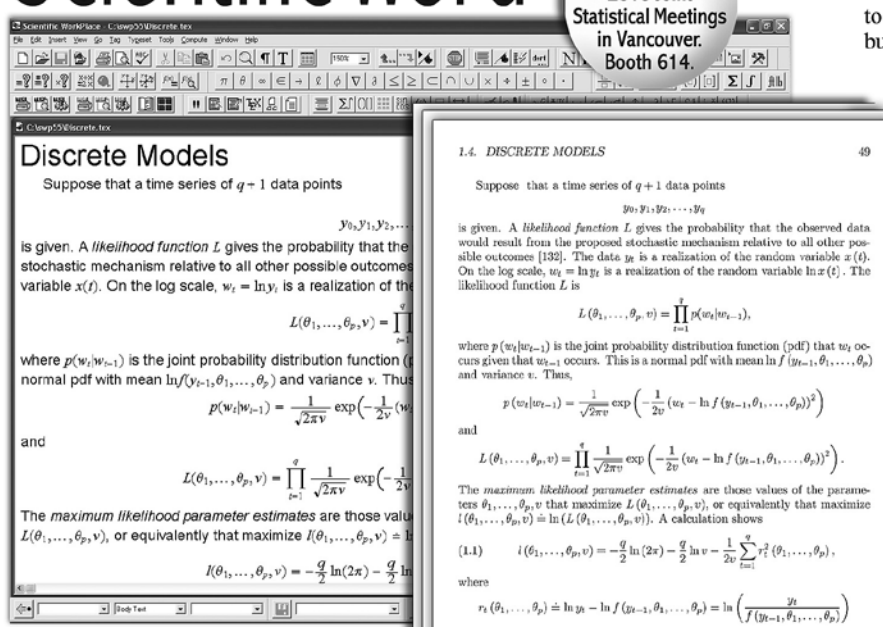
our world, the funny thing is our master’s candidates have been more experienced. So, they have been the managers and the PhDs have been the new people.”

Schweitzer: “The master’s [candidates] are usually more applied. When I look at a PhD candidate, I often take for granted that they have the technical skills, so I’m often seeing if they can translate the theory into the business. [PhDs] often get caught up in the theory. Since we are working with real-world data, it is not always going to follow all of the assumptions that the theory will follow, but we still have to give a result to the client. Sometimes, I think that PhDs are more rigid in following those rules. Not to say that theory is not important. Still, how you work with real-life data in real-world situations is a theoretical problem.”

So, as you prepare for your next job, start thinking about the interviewer’s point of view. In the end, a job search is about finding the right match—interviewers are trying to find someone with specific qualities and employees are trying to find a rewarding career. Determining the qualities to emphasize in a résumé or interview may make landing your next job that much easier. ■

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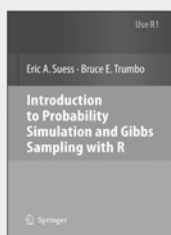
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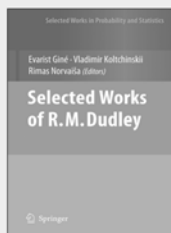


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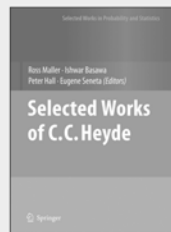
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Donald M. Berwick

President Barack Obama recently nominated **Donald Berwick** to be administrator of the Centers for Medicare and Medicaid Services. Berwick, who was the 2008 Deming Lecturer, is currently president and CEO of the Institute for Healthcare Improvement. He also is a clinical professor of pediatrics and health care policy in the department of pediatrics at Harvard Medical School and professor of health policy and management in the Harvard School of Public Health.

A summa cum laude graduate of Harvard College, Berwick holds a master's degree in public policy from the John F. Kennedy School of Government. He earned his medical degree from Harvard Medical School, where he graduated cum laude.

For more information, visit <http://tinyurl.com/y4ktd8k>.

Tomas Drgon

Tomas Drgon recently accepted the position of scientific review officer for the Biostatistical Methods and Research Design study section of the National Institutes of Health (NIH), which reviews statistical grant proposals. Drgon's research has focused on genomewide association studies for substance abuse, particularly applied to smoking cessation. His research interests include principal component analysis, directed acyclic graphs, graphical models, hierarchical models, clustering, Bayesian methods, and systems biology.

Drgon earned his PhD in biochemistry and molecular biology at Comenius

University in Bratislava, Slovakia. He has been with NIH for 15 years, first at the National Institute of Diabetes and Digestive and Kidney Diseases and then at the National Institute on Drug Abuse. He will be transitioning to his new position at the Center for Scientific Review this summer.

Kung-Yee Liang



Liang

Kung-Yee Liang was recently named the Rema Lapouse Award recipient for 2010. The Rema Lapouse Award is granted annually for excellence in psychiatric epidemiology.

Liang is an internationally renowned epidemiologist and biostatistician. He earned his PhD in biomathematics-biostatistics from the University of Washington in 1982, before taking a position as professor of biostatistics and epidemiology at the Johns Hopkins Bloomberg School of Public Health. For many years, Liang served as director of the graduate program. He has been a visiting professor to Imperial College, Institute of Biometric Sciences, and served as vice president and acting president of the National Health Research Institutes in Taiwan.

Liang has published more than 200 articles in professional journals and seminal texts in biostatistics. He is known primarily for his innovative work in generalized linear models, particularly his and Zeger's model for a generalized estimating equation approach, a breakthrough technique for family studies, multistage clustered samples in survey research, and longitudinal data.

A leading scientist in the field of genetic epidemiology, Liang has studied the genetics of a variety of psychiatric disorders, including schizophrenia and obsessive-compulsive disorder. His work in public health has included a range of cohort studies, such as the precursors study of Hopkins medical school graduates and several population-based cohorts with a focus on

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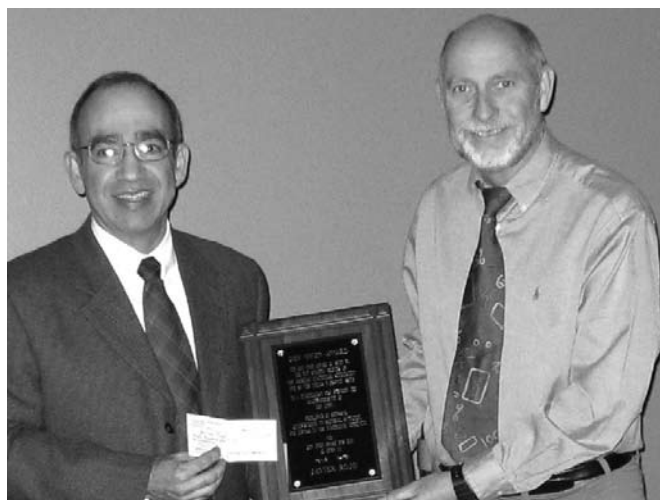
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Javier Rojo Wins 2010 Don Owen Award



Javier Rojo (left) and John Schoolfield

The Don Owen Award for 2010 was presented to Javier Rojo on April 9 at the Conference of Texas Statisticians on behalf of the San Antonio Chapter of the American Statistical Association. Following the presentation, Rojo presented a talk describing the summer education programs and symposia he has organized. He also shared his personal experiences as a collegiate baseball player and how he switched to a career in statistics after suffering an injury that ended his baseball career.

Rojo earned his PhD from the University of California, Berkeley, in 1984 and is a faculty member in the department of statistics at Rice University. He accepted this position in 2001 after serving 17 years as a professor in the mathematical sciences department at The University of Texas at El Paso. Since 2005, he has also served as an adjunct professor at The

University of Texas MD Anderson Cancer Center. In addition to his teaching activities, he serves as chair of the PanAmerican Advanced Studies Institute

Rojo is a Fellow of ASA, Institute for Mathematical Statistics (IMS), and the American Association for the Advancement of Science. He is a chartered statistician of the Royal Statistical Society and a member of the International Statistical Institute, the Bernoulli Society, and the Econometric Society. He also has been elected as a Sigma Xi (Scientific Research Society) Distinguished Lecturer. He is an editor of the *Journal of Nonparametric Statistics*.

For the ASA, Rojo is currently a member of the Noether Award Committee and has served on the Committee on Outreach Education, Committee on Minorities in Statistics, and Committee on Professional Ethics. He was also the Section on

Nonparametrics representative to the Council of Sections, chair of the Committee on Fellows, and program chair for the International Biometric Society - WNAR at JSM in 2000.

Rojo also has been active in his support of the Society for the Advancement of Chicano and Native Americans (SACNAS). In recent years, he has focused on increasing the presence of statistics at the SACNAS annual meetings, frequently serving as the chair and speaker for statistics sessions.

Rojo has published many articles and technical reports in various outlets, including the *Journal of the American Statistical Association*, and *Annals of Statistics*. At Rice University, he has directed three completed PhD dissertations and is supervising two PhD candidates. He also directed two completed PhD dissertations at Centro de Investigación en Matemáticas in Guanajuato, México. While at The University of Texas at El Paso (which did not have a PhD program), Rojo encouraged and mentored eight master's theses, although master's candidates were not required to submit a thesis.

While he was a doctoral candidate at the University of California, Berkeley, Rojo was mentored by Erich L. Lehmann, with whom he maintained a strong collaborative association that resulted in Rojo's development of the Lehmann Symposia, which are designed to showcase ongoing developments in

theoretical statistics. He is also currently editing the collected works of Lehmann for a two-volume set to be published by Springer.

Rojo is the founder and principal investigator for the Rice University Summer Institute of Statistics, a 10-week summer program funded by the National Science Foundation and National Security Agency designed for undergraduates to participate in team projects spearheaded by top scientists. Students also have an opportunity to meet with NASA scientists and biostatisticians at The University of Texas MD Anderson Cancer Center. This program has been successful in encouraging students to embark on a graduate school statistics or mathematics program.

Through his service to the PanAmerican Advanced Studies Institute and his association with CIMAT, Rojo has made enormous contributions to the promotion of statistics in México and El Salvador. He was honored by his election to the CONACYT Sistema Nacional de Investigadores as a level-three researcher. He also has served as a plenary speaker for the Mexican Statistical Association and the Mexican Mathematical Society.

Rojo symbolizes all the qualities of Don Owen, which this award embodies. The Don Owen Award is presented annually by the San Antonio Chapter of the American Statistical Association and Taylor & Francis. ■

substance abuse and mental and personality disorders. He has organized scientific sessions and been an invited lecturer at numerous conferences and schools. Many of his articles are considered classics in biostatistics, winning accolades from leaders in his field.

Currently the editor of *Statistica Sinica*, he serves as coeditor of the *Journal of the American Statistical Association*, *Biometrics*, and *Biostatistics*. Liang has been the recipient of numerous honors and awards, including the Snedecor Award and the American Public Health Association (APHA) Spiegelman Award. In 1997, he received the Advising, Mentoring, and Teaching Recognition Award from the Johns Hopkins School of Hygiene and Public Health Student Assembly.

Liang was recently offered the presidency of the National Yang-Ming University in his native Taiwan, where he will be returning this year. In addition, he will direct neuroscience and psychiatry research in the medical school, considered one of the most prestigious in Asia.

Liang's award ceremony and lecture will take place during a special session of the APHA during its annual meeting in Denver, Colorado, in November.

John McGready



McGready

The ASA Section on Teaching Statistics in the Health Sciences (TSHS) recently named **John McGready** winner of its Outstanding Teaching Award.

McGready is an assistant scientist in the department of biostatistics at Johns Hopkins Bloomberg School of Public Health. While at Johns Hopkins, he has won six school-wide teaching awards and developed the online course, "Statistical Reasoning in Public Health I and II," which has consistently received top ratings in distance education courses. In fact, McGready has won the Excellence in Online Teaching Award twice.

McGready is also the developer and co-instructor of Data Analysis Workshops I and II, offered in the winter and summer institutes of epidemiology and biostatistics at Johns Hopkins.

Colleagues have commented on his enthusiasm for teaching, his dedication to teaching biostatistics, and his "... extraordinary teaching excellence. ..." He also won the TSHS Best Contributed Paper Award in 2006.

McGready will be recognized during the TSHS business meeting and mixer at JSM 2010 in Vancouver, British Columbia.

Computing's Chambers Award for "The Bigmemory Project," an R package that implements massive matrices and their supporting manipulation and exploration.

In addition to the \$1,000 prize, Kane will have his JSM registration paid for by the section and be reimbursed for travel and housing. The award will be presented during the section's business meeting and mixer at JSM.

Michael Kane

Michael Kane of Yale University was recently named winner of the ASA Section on Statistical

Sallie Keller

Sallie Keller, the William and Stephanie Sick Dean of Engineering at Rice



Larry Nelson of North Carolina State University, Winston Richards of Penn State University, and David Banks of Duke University

Friends, family, and statisticians gathered in Durham, North Carolina, on May 2 to celebrate the 75th birthday of **Winston Richards**, who teaches at Pennsylvania State University in Harrisburg and is a long-time visitor and teacher during the summer at Stanford.

The birthday party was a more intimate reprise of the larger celebration that occurred during the recent Statistics Week conference at the University of the West Indies in Richard's native Trinidad. He and Ingram Olkin were the guest speakers there.

Richard's students, colleagues, and friends in the profession probably know him best for his public work—he is a gifted teacher, mentor, and dedicated ambassador of statistics to the public. However, the May 2 celebration provided a window into his private life. He and his wife, Kathleen, have eight children and more grandchildren than guests could count.

Richards is a Fellow of the ASA and past-president of the ASA's Harrisburg Chapter. He has served on several ASA committees, most recently the Committee on Membership.

Read about your colleagues and friends in the news. Go to www.amstat.org and click on "Statisticians in the News."

University in Houston, Texas, was recently appointed director of the Institute for Defense Analyses of the Science and Technology Policy Institute (STPI) in Washington, DC. She will assume her new duties in September.

Keller brings a wealth of experience and knowledge to STPI. A past-president of the ASA, Keller was a group leader for the Statistical Sciences Group at Los Alamos National Laboratory from 1998–2005 and currently chairs a network Grand Challenge Advisory Board for Sandia National Laboratory. She also served as the program director for statistics and probability in the Division of Mathematical Sciences at the National Science Foundation.

Active on advisory committees, Keller chaired a number of National Research Council panels, including one on modeling and simulation for defense transformation. She is a Fellow of the ASA and the American Association for the Advancement of Science and a National Associate of the National Academy of Sciences.

To read more about Keller's appointment, visit <http://tinyurl.com/39csezuv>.

Obituary **Tim Robertson**

Richard Dykstra

Tim Robertson passed away on April 5 at the age of 72 to the regret of his colleagues, family, and friends.

Robertson, son of Helen Oliver-Girdner and stepfather Flick Girdner, was born October 4, 1937, in Denver, Colorado. His family moved

to Chillicothe, Missouri, in 1942, and he graduated from Chillicothe High School in 1955.

Robertson attended the University of Missouri in Columbia and earned his BA in mathematics in 1959. He and his wife, Joan, were married prior to his senior year. He entered graduate school in the fall of 1959 and earned his MS in mathematics in 1961.

Robertson accepted an assistant professor position in mathematics at Cornell College in Mount Vernon, Iowa, where he and Joan also served as houseparents in the men's dormitory from 1961–1963.

In 1963, Robertson and Joan returned to Columbia, where he pursued his PhD. His thesis advisor was H. D. (Dan) Brunk, with whom he established a close friendship that existed until Brunk's death in 2009. Brunk instilled an appreciation for mathematical rigor and a thrill of research in Robertson that carried through his entire academic life.

Robertson joined the department of statistics and actuarial science at the University of Iowa as a new PhD in 1965. He was a good teacher and researcher and was promoted to associate professor in 1968 and full professor in 1974. Eighteen students wrote their PhD dissertations under his guidance. Most became successful scholars, and several maintained contact with Robertson until his death.

Robertson was a successful and well-respected scholar. He was a Fellow of both the American Statistical Association and the Institute

of Mathematical Statistics. He was elected to membership in the International Statistical Institute, and he was an active member of the Mathematical Association of America. Robertson was the lead author of the monograph "Order Restricted Statistical Inference," which was considered the standard reference on the topic. He was the recipient of a University of Iowa Collegiate Teaching Award in 1990 and generally recognized as being an outstanding teacher.

Robertson served as associate editor for several statistical journals and took an active role in university activity. He served on the Educational Policy Committee for several years, as well as on the Board in Control of Athletics. Though Robertson was a demanding advisor, he was also nurturing. He had high expectations of his students, but his door was always open to them. He was enthusiastic in the classroom, and many of his students recall being kept on their toes by relevant questions directed at them.

Robertson developed many interests outside the university. He loved the outdoors and often took his family on camping and canoeing trips to the Boundary Waters of Minnesota and various Iowa rivers. He trained hunting dogs, competed in field trials with them, and was a founding member of the Eastern Iowa Shooting Dog Association. In 1992, Robertson and Joan purchased a farm near the Cedar River at Cedar Bluffs. They built a modest home (referred to as "the cabin"),

which was later enlarged to become the elegant, comfortable home he and Joan enjoyed until their deaths.

Robertson was preceded in death by his loving wife and lifelong companion, Joan, who passed away on February 25. He is survived by his four children—Kelly, Jana, Doug, and Mike—and six grandchildren.

Obituary **Arnold J. Rosenthal**

Arnold Rosenthal, born in 1922 in New York City, passed away on February 26. He earned a BS from the City College of New York in 1941 and a PhD from Brooklyn Polytechnic Institute in 1958. He worked for the Celanese Corporation for 41 years as a statistician.

From 1963 to 1987, Rosenthal was both editor and publisher of two highly acclaimed and widely used abstract services: Quality Control and Applied Statistics and Operations Research/Management Science. These provided an important resource to statisticians and operations researchers worldwide in the days before the Internet. Rosenthal was, for many years, an active participant of the Gordon Research Conference on Statistics in Chemistry and Chemical Engineering. He and his wife, Dorothy, also served as the group's photographers. Dorothy has graciously donated their pictures to the ASA for its archives. ■

Biometrics

Byar Award Winners, JSM Fill Out Section Activities

Edited by Page Moore, Biometrics Section Publications Officer

X Jessie Jeng of the University of Pennsylvania was chosen as the 2010 winner of the David P. Byar Young Investigator Award. He will receive a \$1,500 award for the paper titled “Optimal Sparse Segment Identification with Application in Copy Number Variation Analysis,” which will be presented at JSM in August.

The David P. Byar Young Investigator Award is given annually to a new researcher in the Biometrics Section who presents an original manuscript at JSM. The award commemorates David Byar, a renowned biostatistician who made significant contributions to the development and application of statistical methods during his career at the National Cancer Institute.

This year, there were 16 papers submitted to the Byar Award Committee, which consisted of Daniel Heitjan of the University of Pennsylvania, Barry Graubard of the National Cancer Institute, J. Jack Lee of MD Anderson Cancer Center, Paul Vos of East Carolina University, Kathy Cronin of the National Cancer Institute, and Joanna Shih of the National Cancer Institute. The committee also chose the following three members to receive travel awards:

- Jaeun Choi of The University of North Carolina for “Joint Analysis of Survival Time and Longitudinal Categorical Outcomes”
- Eunhee Kim of Brown University for “Semiparametric Transformation Models for Multiple Biomarkers in ROC Analysis”
- Elif F. Acar of the University of Toronto for “Nonparametric Covariate Adjustment in Conditional Copulas: An Application to Twin Birth Weights”

The travel award winners will receive \$1,000 to help pay for travel to JSM, where they will present their papers.

Mixer and Business Meeting

All award winners will be honored during the Biometrics Section mixer and business meeting on August 2. In addition, Jim Cochran will take a few minutes to share information about Statisticians Without Borders (SWB), such as current projects and how members can become involved. SWB is a group that does pro bono statistical work related to international health issues, particularly in the developing world. The mixer is open to all JSM attendees

JSM 2010 Program

The theme of this year’s Joint Statistical Meetings—to take place July 31–August 5 in Vancouver, British Columbia—is “Statistics: A Key to Innovation in a Data-Centric World.” The Biometrics Section will cosponsor the short course “Regression Modeling Strategies,” taught by Frank Harrell Jr. on August 1, in addition to the following invited sessions:

- Statistical Evaluation of Markers Used to Select Treatment, organized by Margaret Pepe of the University of Washington
- Study Design and Statistical Analysis Challenges in Women’s Health Studies, organized by Marcia Ciol of the University of Washington
- Evaluation of Risk Prediction, organized by Shulamith Gross of Baruch College
- Getting More from Genomewide Association Studies, organized by Mitchell Gail of the National Cancer Institute



Horseshoe Bay—in Vancouver, British Columbia—is one of the many places to visit during JSM.

Visit the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for up-to-date session times and locations.

JSM 2011

It’s time to start thinking about invited sessions for JSM 2011, which will be held July 30–August 4 in Miami Beach, Florida. Anyone interested in organizing an invited session or who has ideas for one should contact the section’s 2011 program chair, Tianxi Cai, at tcai@hsph.harvard.edu.

A typical invited session consists of three 30-minute talks followed by a 10-minute invited discussion and 10 minutes of floor discussion; however, other formats are possible. The 2010 program is a good source for examples.

The most mature ideas will have an advantage when competing for the limited number of slots. The Biometrics Section will have at least four invited sessions, but be able to compete for additional slots.

Ideas for short courses should be sent to the section’s 2011–2012 continuing education chair, Annie Qu, at anniequ@illinois.edu. ■

Section Is Primary Sponsor of Five Invited Sessions

JSM 2011

If you have ideas for JSM 2011 invited sessions, contact the section's program chair, Danny Kaplan, at kaplan@macalester.edu.

The statistics education program includes a lineup of thought-provoking presentations, roundtable discussions, and posters. Following are the invited sessions primarily sponsored by our section.

Statistics Degree Programs in a Data-Centric World: What Needs to Change?, organized by Jessica Utts of the University of California, Irvine

Panelists: Douglas G. Simpson, University of Illinois at Urbana-Champaign

James Rosenberger, Penn State

Christopher Malone, Winona State University

Raymond Bain, Merck Research Laboratories

Dalene Stangl, Duke University

Eileen King, Cincinnati Children's Hospital Medical Center

Rethinking Our Statistics Courses: What to Let Go of in Order to Grow?, organized by Deb Rumsey of The Ohio State University

Panelists: Deborah J. Rumsey, The Ohio State University

Allan Rossman, Cal Poly

Beth Chance, Cal Poly

Jessica Utts, University of California, Irvine

Establishing a Career in Statistics Education, organized by Joan Garfield of the University of Minnesota

Panelists: Dennis Pearl, The Ohio State University

Robert DelMas, University of Minnesota

Herle McGowan, North Carolina State University

Hollylynne Stohl Lee, North Carolina State University

Beyond the Introductory Course: Strategies for a Second Course in Statistics, organized by Tisha Hooks of Winona State University

Panelists: Julie Legler, St. Olaf College

Shonda Kuiper, Grinnell College

Robin Lock, St. Lawrence University

Brad Hartlaub, Kenyon College

Nathan Tintle, Hope College

Effective Use of Instructional Technology, organized by Rob Gould

Presenters: Michelle Everson, University of Minnesota

Webster West, Texas A&M University

Jamis Perrett, Texas A&M University

Nicholas Horton, Smith College

In addition, the following topic-contributed sessions were organized by section members.

Statistics Education Funding from the National Science Foundation Division of Undergraduate Education, organized by Stephanie Fitchett of the National Science Foundation

Statistical Literacy 2010, organized by Milo Schield of Augsburg College

Challenges in Large Sections: GAISE-ing Toward Solutions, organized by Kim Gilbert of The University of Georgia

Statway: Integrating College-Level Introductory Statistics and Developmental Mathematics, organized by Roxy Peck of Cal Poly

JSE: A Resource for Innovative Statistics Instruction in a Data-Centric World, organized by John Gabrosek of Grand Valley State University

Evidence-Based Education: Improving Teaching and Learning Through Understanding Students' Attitudes, organized by Candace Schau of CS Consultants, LLC

Collaborative Projects in Statistics Education Research, organized by Bob delMas of the University of Minnesota

Survey Data and Online Analysis Systems, organized by Katie Genadek of the University of Minnesota

The Section on Statistical Education is also sponsoring seven contributed paper sessions and several roundtables, in addition to cosponsoring a few other sessions. For more information, contact Tisha Hooks at thooks@winona.edu.

Visit the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for up-to-date session times and locations. ■

Register today for the Joint Statistical Meetings, to take place in Vancouver, British Columbia, Canada

www.amstat.org/meetings/jsm/2010

Section to Sponsor Five Invited Sessions at JSM

Ron Brookmeyer, Section Chair; Ruth Pfeiffer, Section Program Chair; Jaya Satagopan, Section Secretary/Treasurer; and Jing Cheng, Section Publications Officer

The Statistics in Epidemiology (SIE) Section will serve as the primary sponsor of five invited, four topic-contributed, and 20 contributed sessions, as well as one A.M. roundtable—Gerontologic Biostatistics: Application and Resources, led by Heather Gwynn Allore of Yale University—at the 2010 Joint Statistical Meetings in Vancouver, British Columbia. All are invited to attend these sessions and the SIE awards reception and presentation of the Nathan Mantel Lifetime Achievement Award.

Invited Sessions

August 1

Spatial Epidemiology, GIS, and Disease Mapping, organized and chaired by Dongseok Choi of Oregon Health & Science University. *Speakers:* Tom Koch, The University of British Columbia; Andrew Lawson, Medical University of South Carolina; and Victoria Wan, Simon Fraser University

August 2

A Key to Innovation in Genetic Epidemiology, organized by Iryna Lobach of New York University School of Medicine and chaired by Iryna Lobach of New York University School of Medicine. *Speakers:* Hongyu Zhao, Yale University; Kathryn Roeder, Carnegie Mellon University; Danyu Lin, The University of North Carolina at Chapel Hill; and Glen Satten, CDC

August 3

Advances in Instrumental Variables Methods, organized and chaired by Dylan Small of the University of Pennsylvania. *Speakers:* J. Niels Rosenquist, Harvard Medical School; Joseph W. Hogan, Brown University; and Jing Cheng, University of Florida
Discussant: Thomas Louis, Johns Hopkins Bloomberg School of Public Health

August 4

Novel Methods for Extended Case-Control Designs, organized and chaired by Ivy Liu, Victoria University of Wellington. *Speakers:* Norman Breslow, University of Washington; Christopher J. Wild, University of Auckland; Yan Li, The University of Texas at Arlington; and Paul J. Rathouz, The University of Chicago

August 5

Risk Stratification Markers: Applications to Public Health and Clinical Medicine, organized by Estelle Russek-Cohen of FDA and chaired by Ruth Pfeiffer of the National Cancer Institute. *Speakers:* Mitchell H. Gail, National Cancer Institute; Estelle Russek-

Cohen, FDA; and Ralph B. D'Agostino Sr., Boston University
Discussant: Margaret Sullivan Pepe, Fred Hutchinson Cancer Research Center

Topic-Contributed Sessions

The topic-contributed sessions include the following:

Integrated Analysis of Family and Case-Control Data in Genetics, organized by Jeanine Houwing-Duistermaat of Leiden University Medical Center

Methodological Challenges Encountered in the Analysis of HIV and STD Data at the Centers for Disease Control and Prevention, organized by Felicia Hardnett of CDC

Risk Prediction in Survival Data, organized by Nancy Cook of Brigham and Women's Hospital

Hierarchical Models for Health Disparity: A Road Map to Healthy People 2010, organized by Tapabrata Maiti of Michigan State University

Contributed Sessions

Titles of the contributed sessions include the following:

- Spatial Epidemiology and Disease Mapping
- Topics in Testing
- Clustered Data
- Infectious Disease Modeling
- Topics in Causal Inference
- Longitudinal Data Analysis
- Survival Analysis
- Topics in Missing Data
- Errors in Variables and Misclassification
- Diagnostic Testing and ROC Analysis
- Epidemiology Designs Based on Complex Survey Data
- Epidemiologic Studies of Obesity and Cancer
- Topics in Genetic Epidemiology
- Infectious Disease Epidemiology
- Survival Methods and Poisson Regression for Health Data
- Topics on Time Series and Longitudinal Measurements
- Topics in Infectious Disease Modeling
- Health Science Applications
- Methods for Binary Outcome Data
- Methods for Growth Curves and Trajectories

Visit the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for up-to-date session times and locations. ■

Packed Program Planned for JSM



The Health Policy Statistics Section (HPSS) has a full program for JSM this year that displays the range of topics associated with health policy research and applications. HPSS is the primary sponsor of two invited sessions, eight topic-contributed

sessions, six contributed sessions, a speaker luncheon, poster presentations, two A.M. roundtables, and one P.M. roundtable. These can be identified in the online program at www.amstat.org/meetings/jsm/2010/onlineprogram by selecting "Health Policy Statistics Section" as the sponsor.

The annual section mixer and business meeting will be held on August 2 at Steamworks Brewing Company (375 Water Street, a short stroll from

the convention center) and feature free food and drink, amiable company, and the presentation of the HPSS student awards. HPSS members, organizers, speakers, discussants, and friends are invited. This year's HPSS Student Award winners will give their presentations on August 3.

Roundtables

Roundtables allow people to learn about new topics while meeting others with similar interests. Be sure to register before the meeting or soon after arrival; tickets must be purchased at least 24 hours before the event, and roundtables often sell out. HPSS-sponsored roundtables include the following:

August 2, 12:30 p.m. – 1:50 p.m.

Issues of Data Capacity and Statistical Quality to Support Health Care Modeling and Microsimulation Efforts, led by Steve Cohen of the Agency for Healthcare Research and Quality

There is a growing demand for timely, high-quality, and precise estimates of health care parameters at the national and subnational levels and associated readily accessible data resources to inform health care policy and practice. Analytic efforts directed at modeling current and future states include developing economic models projecting health care expenditures and utilization; estimating the impact of changes in financing, coverage, and reimbursement policy; and determining who benefits and who bears the cost of a change in policy. High standards of data quality and statistical integrity for these modeling and microsimulation efforts are needed to ensure policymakers understand the level of uncertainty associated with the model-based estimates. This roundtable discussion will focus on

Student Paper Award Winners

The following papers were chosen because they exemplify innovative and creative applications of statistical analysis to address pressing issues in health policy.

"Near/Far Matching: Building a Stronger Instrument," by Mike Baiocchi of the University of Pennsylvania

"Bayesian Semiparametric Analysis of Case-Control Studies with Time-Varying Exposures," by Dhiman Bhadra of the University of Florida

"Full Bayesian Procedure for File Linking to Analyze End-of-Life Medical Costs," by Roe Gutman of Harvard University

"Assessing Privacy Using the Area Under the Receiver-Operator Characteristic Curve," by Gregory Matthews of the University of Connecticut

"Regression Adjustment and Stratification by Propensity Score in Treatment Effect Estimation," by Jessica Myers of The Johns Hopkins University

The winners will present their papers during a JSM session on August 3. The awards presentation will take place during the HPSS mixer on August 2.

issues of data capacity, statistical quality, and evaluations to improve the utility of these efforts.

August 3, 7:00 a.m. – 8:15 a.m.

Development and Psychometric Evaluation of the PROMIS Item Banks and Short-Form Instruments, led by Laura Lee Johnson of the National Institutes of Health

In late 2004, the National Institutes of Health formed the Patient-Reported Outcomes Measurement Information System (PROMIS) cooperative network. One of the primary goals of PROMIS is to develop health-related quality-of-life item banks, which would be a valuable resource for the clinical research investigative community. This roundtable will provide an overview of the development of the item banks and psychometric evaluation processes, as well as an update on the current status of PROMIS. Based on attendees' interests and backgrounds, topics of discussion may include item response theory, differential item functioning, standardizing the score metric, literature reviews, collection and use of qualitative data, mode and environment of administration, and how to use a patient-reported outcome measure in clinical research and practice.

August 4, 7:00 a.m. – 8:15 a.m.

Reliability and Misclassification in Physician Profiling, led by John L. Adams of RAND Corporation

There is growing interest in physician report cards to inform consumer choice and support pay-for-performance incentive systems. Physicians are being profiled on both cost and quality of care, but the reliability of these profiles has not been adequately explored. We will discuss the interaction between the statistical and policy issues in physician profiling. Among the topics we will cover are the reliability and misclassification risks of various systems.

Visit the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for up-to-date session times and locations. ■

Speaker Luncheon



HPSS's speaker luncheon is always a high point. This year, Ruth Etzioni, a professor of biostatistics and health services at the Fred Hutchinson Cancer Research Center, will give a talk titled **"Statistician at the Policy Table: Integrating Modeling in the Development of Public Health Guidelines"** on August 4 from 12:30 p.m. – 1:50 p.m.

A key product of evidence-based medicine is the publication of national policies for disease control, providing guidance to clinicians and the public about options for prevention, screening, diagnosis, and treatment. Policy development generally takes the form of a group decisionmaking process, in which an interdisciplinary panel of subject-area experts integrates many studies of diverse quality and attempts to make intelligent inferences from imperfect and incomplete evidence. Etzioni will relate her experiences as a statistician on two national guidelines panels for the early detection of prostate cancer, argue that statisticians can play a critical role as members of policy panels, and provide a vision for and an example of how to use modeling to aid panel members as they weigh the quantitative tradeoffs of competing public health policies.

Etzioni has been modeling cancer interventions and outcomes for more than 15 years. She models prostate cancer for the Cancer Intervention and Surveillance Modeling Network, which aims to quantify the contributions of screening and treatment changes to declines in prostate cancer mortality. Her prostate cancer models have been used to estimate the frequency of overdiagnosis, determine whether PSA screening could have caused the early downturn in prostate cancer mortality, and compare different screening intervals and biopsy referral strategies. Through her membership on national prostate cancer policy panels, she is working to integrate modeling directly into the policy-development process.

'Olympian' Program Planned for JSM

Michael Elliott, 2010 Section Program Chair, and Paul Beatty, 2011 Section Program Chair



The Survey Research Methods Section (SRMS) will primarily sponsor seven invited sessions, 18 topic-contributed sessions, 23 contributed sessions, and six roundtables.

Invited session topics include missing data, small-area estimation, the use of paradata, and planning for the 2020 Census. Highlights from the topic-contributed and contributed program include sessions on federal survey issues (e.g., record linkage at the U.S. Census Bureau, estimating farms at the Department of Agriculture, and counting workplace injuries at the Bureau of Labor Statistics), design (e.g., two-phase data collection and addressed-based sampling), analyzing data from multi-mode surveys, small-area estimation, and novel weighting methodologies. There are also two sessions in honor of Rod Little's 60th birthday that will focus on missing data and survey methodology.

The SRMS poster session will take place on August 2. For the third year in a row, prizes will be awarded for the best posters. There also will be several students presenting in the student paper competition that is jointly sponsored by the Social Statistics and Government Statistics sections on August 5. Finally, the SRMS committee meeting will take place on August 4.

Speaker Luncheons and Roundtables

Speaker luncheons and roundtables provide an opportunity to learn about a new topic and meet others with similar interests in a relaxed setting. Tickets must be purchased 24 hours before the event, although they do sell out early, so register as soon as possible. A.M. roundtables are \$15; P.M. roundtables and speaker luncheons are \$40. SRMS will sponsor the following:

August 2, 7:00 a.m. – 8:15 a.m.

Cell Phone Surveying in the United States: An Update from a 2010 AAPOR Task Force, led by Paul J. Lavrakas, Independent Contractor

Conducting representative telephone surveys of the general public in the United States has become challenging in the past five years because of the growing prevalence of cell phone-only and cell phone-mostly households—now estimated to constitute more than 40% of all U.S. households. The American Association for Public Opinion Research (AAPOR) reconstituted its Cell Phone Surveying Task Force and will issue the 2010 task force report in May. This discussion will be led by the chair of the AAPOR task force. Topics of discussion will include challenges related to sampling and coverage, nonresponse, measurement, weighting, legal and ethical issues, operations, and costs.

August 2, 12:30 p.m. – 1:50 p.m.

Incorporating and Managing Paradata into Survey Operations for Quality Control and Cost Containment, led by Cheryl Landman and Andrea Piani of the U.S. Census Bureau

Managing survey operations in an electronic environment provides opportunities and challenges. One such opportunity is the potential to collect paradata,

or measures of survey progress, costs, and quality. This roundtable will focus on building real-time systems to manage these performance indicators. Key questions to be considered include the following: What paradata are being collected and used in "real time"? How are these data being used? What technologies are being used for building, displaying, and monitoring paradata? What is the development process? Are these built on a database or streamed from multiple sources? In addition, we would like to discuss the potential for more sophisticated displays of paradata during data collection that might facilitate quick decisions during the data-collection period, potentially including changes to questionnaires, samples, modes, or interviewing methods.

August 3, 12:30 p.m. – 1:50 p.m.

Communicating Qualitative Research Findings to a Statistical Audience, led by Kathy Downey of the Bureau of Labor Statistics

Qualitative research methods, such as cognitive interviewing and focus groups, have become commonplace in survey research. These methods are typically used to aid development of data-collection instruments and contact strategies. Findings using these methods may alert statisticians to potential non-sampling errors and users to potential data discrepancies. Thus, it is important that qualitative research findings be communicated effectively to statistical audiences. The purpose of this roundtable is to engage qualitative researchers, sampling statisticians, and statistical data users in a constructive dialogue that focuses on effective communication of qualitative research findings as they relate to survey research. Participants will take away an improved understanding of the underlying assumptions, interpretation, and report generation of qualitative research findings.

August 3, 12:30 p.m. – 1:50 p.m.

Best Practices for Asking Questions on Sexual Orientation on Surveys, led by Elizabeth Saewyc of the Internal Revenue Service and Barry Wayne Johnson of The University of British Columbia

In 2009, the Sexual Minority Research Assessment Team completed the report *Best Practices for Asking Questions on Sexual Orientation on Surveys*. Over five years, a multidisciplinary expert panel pooled decades of knowledge and experience, conducted new methodological research, and met with many survey specialists to identify the best scientific approaches to gathering data on sexual orientation. This report is the culmination of the work of this panel. Elizabeth Saewyc, one of the report's authors, will lead a discussion highlighting the report's recommendations.

August 4, 12:30 p.m. – 1:50 p.m.

Evaluation and Management of Cost Structures in Statistical Work with Administrative Record Data, led by John L. Eltinge of the Bureau of Labor Statistics

Statistical organizations often consider using data from administrative records to supplement or replace data from standard sample surveys. This work with administrative data often can involve costs that are substantial and difficult to measure. In this roundtable, participants will be invited to share their experiences with the evaluation and management of these cost structures, including the following:

Costs attributable to specific steps in work with administrative record data, including initial work with the data-originating organization; data management; record matching; review, editing, and imputation; and systems development and maintenance

Methods to obtain solid empirical information on the above-mentioned cost components

Methods for realistic comparisons of the costs of obtaining data from sample surveys and administrative records, respectively

August 4, 12:30 p.m. – 1:50 p.m.

Fitting Multilevel Models to Complex Sample Survey Data, led by Brady West of the Institute for Social Research

This roundtable discussion will aim to spark conversation about state-of-the-art (and available) computing methods for taking model-based approaches to the analysis of complex sample survey data. Topics for discussion include multilevel modeling of panel (longitudinal) survey data, programs for handling

survey weights appropriately when fitting multilevel models to survey data, general software options for applied researchers working with survey data, published examples in which participants might be willing to share code from the analyses, and how to make recommendations for nonstatistical clientele.

Visit the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for up-to-date session times and locations. ■

Statistical Consulting

Timely Program Offered

Cynthia R. Long, Section Publications Officer

This year's Joint Statistical Meetings will take place from July 31 to August 5 in Vancouver, British Columbia, and the Statistical Consulting Section has put together an interesting and timely program that includes an invited panel and paper, topic-contributed panel and paper, and contributed paper and oral poster sessions.

The invited panel session, *Improving the Dialogue Between the Consulting Statisticians and Nonstatisticians in the Case of Nonstandard Applications*, is on August 1. Invited paper sessions include *Why I Took the Red Pill: Four Consulting Statisticians Discuss Making a Difference in the Real World* on August 2 and *Statistics and Development of Personalized Medicines* on August 4. The section is also cosponsoring the invited paper session *Experiences of Statistical Consulting in Lawsuits* on August 4.

The topic-contributed panel session, *Statistics in the Community*, is on August 1, and the topic-contributed paper session, *Consulting for Translational Research: Emerging Issues and Recommendations*, is on August 3.

The contributed paper session, *Topics in Statistical Consulting*, will take place on August 2, and the contributed poster session is slated for August 3.

The section also organized three A.M. and three P.M. roundtable discussions that still have spots open.

Join section members on August 3 during the business meeting and mixer for good food, drink, and mingling. The short business meeting following the mixer will include an introduction of section officers, the financial report, and JSM program reports. There also will be door prizes.

Visit the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for up-to-date session times and locations.

Sessions, Posters, and Roundtables Planned for JSM

Mary Gray, Section 2010 Program Chair, and Robert Oster, Section 2010 Publications Officer

Meeting and Mixer

The section will hold its annual business meeting and mixer, open to all JSM participants, on August 2. A highlight of this meeting will be the presentation of the new TSHS Outstanding Teaching Award to a section member.

Officers of the Teaching of Statistics in the Health Sciences (TSHS) Section are pleased to present the section's portion of the JSM 2010 program. The section is sponsoring and cosponsoring a variety of sessions, posters, and roundtables on statistical education and training. Search the online program at www.amstat.org/meetings/jsm/2010/onlineprogram for a complete list of all TSHS-related activities and up-to-date session times and locations.

Invited Sessions

Teaching to Diversity, a panel featuring applications and the conference theme, will take place on August 2. Speakers from the United States, United Kingdom, and Peru will discuss the challenges and rewards of teaching statistics to diverse professional and geographic audiences and serving as Statisticians Without Borders consultants. This session is cosponsored by the Section on Statistics and the Environment.

The panel Establishing a Career in Statistics Education will introduce various paths that present themselves in this field. Scheduled for August 3,

it is cosponsored with the Section on Statistical Education and the Section for Statistical Programmers and Analysts.

Focusing on the conference theme and cosponsored by *The American Statistician*, the Committee on Career Development, the Section on Quality and Productivity, and the Section on Statistical Education is the panel Statistics Training in a Data-Centric World. Speakers from academe and the government will participate on August 5.

Topic-Contributed Sessions

The panel Statistics in the Community: Present and Future, scheduled for August 1, will focus on establishing the reality of and prospects for professional service. This session is cosponsored with the Statistical Consulting and Quality and Productivity sections.

Statistical Literacy 2010 includes "Probability in Decline" and "The Undetectable Difference: An Experimental Look at the 'Problem' of p -Values." The Section on Statistical Education is the principal sponsor for this August 2 session.

Consulting for Translational Research: Emerging Issues and Recommendations looks at the transition from genetic studies to personalized medicine, the role of bench scientists, regulatory challenges, and translational research and the T1-T2 continuum. Scheduled for August 3, its principal sponsor is the Section on Statistical Consulting.

On August 4, there is a panel on NIH funding of biostatistical research and training. Among the speakers

will be representatives of funders and fund recipients. Cosponsors are the Biometrics Section and ENAR.

The panel Survey Data and Online Analysis Systems will feature these systems' use in a variety of classroom settings. Scheduled for August 5, its principal sponsor is the Section on Statistical Education.

Contributed Sessions

An oral poster presentation will take place August 2 and include topics such as the relationship between attitude and knowledge in health care statistics, attitudes and beliefs toward statistics of health science students, the development of a noncredit research training program for clinical researchers, and respondent-driven sampling implementation.

On August 4, Biostatistics in the Health Sciences: Improving Literacy, Building Careers will examine issues in teaching nursing majors, dentists-to-be, public health students, and clinicians. Papers to be presented include "Building the Biostatistics Pipeline" and "Misuse of Statistical Terms: What Should We Do About It?"

Roundtables

TSHS is sponsoring three A.M. roundtables: Incorporating Lean Six Sigma into an MBA Statistics Course on August 2; CTSpedia Education Initiatives: Statistics Teaching, the Clinical and Translational Science Award Sites, and the Web on August 3; and Promoting Statistical Literacy Among Clinical and Laboratory Researchers on August 4. ■

San Antonio Chapter Hosts Career Day



Keying Ye, a professor in the department of management science and statistics at The University of Texas at San Antonio, addresses students who attended Career Day in Statistics on April 17.

The San Antonio Chapter hosted Career Day in Statistics on April 17 in collaboration with the department of management science and statistics at The University of Texas at San Antonio (UTSA) and the TRIO programs at UTSA. The goal of the career day was to emphasize the importance of quantitative education in everyday life and raise awareness of career opportunities in statistics.

More than 100 high-school students from various local high schools attended the event, which took place at UTSA. Following a short welcome by Vanessa Kenon, project director of the TRIO programs (Upward Bound, McNair, and Educational Talent Search), and Daniel Hollas, senior associate dean of the UTSA College of Business, the students attended lectures, enjoyed lunch, and participated in hands-on statistical activities involving applications of Pearson's Chi-square goodness-of-fit test and applications of the Poisson distribution.

During the lectures, students were given a broad view of statistical applications in various fields. Speakers included biostatisticians, statisticians, and actuaries. Each career-oriented talk offered a brief overview of real-life, day-to-day applications of statistics.

AP Statistics Project Competition Breaks Record



73 competition poster boards fill Cooper Auditorium at City of Hope National Medical Center.



Winners of the 5th Annual Southern California AP Statistics Project Competition with teachers and chapter members

The Southern California Chapter held its fifth annual project competition for high-school AP Statistics students on May 15 at City of Hope National Medical Center. A new record of 73 teams (from seven schools) participated.

Before the awards luncheon, Don Bentley, professor emeritus at Pomona College, gave a presentation titled "The Compleat [sic] Statistician," in which sound statistical practice was related to a competition project that was completed well. Ten entries were declared winners and the students were given a small cash prize and T-shirts donated by Minitab.

Concurrent with the competition, the chapter held a tutorial session for teachers who accompanied their students. After a welcome by competition chair Rodney Jee, chapter president, Robert Gould, presented a review of the graphics used on the competition entries. Robert Newcomb of UCI presented a demonstration of SAS' JMP software, and Lee Kucera of Capistrano Valley High School gave a lesson on the uses of Texas Instruments' NSpire calculator for teaching statistics. At the end of the session, door prizes and giveaways from SAS JMP, Minitab, and Texas Instruments were given to the teachers.

The competition has been the chapter's primary K-12 outreach over the past few years. Its success has led to wider participation, and chapter members have begun discussing ways to improve it and find additional avenues to promote the statistics profession to students. ■

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CE_26T

Introduction to CART: Data Mining with Decision Trees
August 4, 2010, from 8:00 AM – 9:45 AM

CE_30T

Introduction to MARS: Predictive Modeling with Nonlinear Automated Regression Tools
August 4, 2010, from 10:00 AM – 11:45 AM

CE_34T

Advances in Data Mining: Jerome Friedman's TreeNet/MART and Leo Breiman's Random Forests
August 4, 2010, from 1:00 PM – 2:45 PM

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What data mining or predictive modeling tools do you currently use?

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For more information about these events, visit www.amstat.org/datetime. 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

July

*31–8/5—2010 Joint Statistical Meetings, Vancouver, British Columbia, Canada

JSM is the largest gathering of statisticians held in North America. Attended by more than 5,500 people, activities include oral presentations, panel sessions, poster presentations, continuing education courses, an exhibit hall, a career 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

»*1–4—Cavell Brownie Scholars JSM Mentoring Program, Vancouver, British Columbia, Canada

The goal of this program is to increase the representation of students and postdocs from under-represented groups pursuing academic careers and entering the professoriate. Graduate students and postdoctoral scholars will be paired with faculty mentors at the 2010 Joint Statistical Meetings. Nominations are encouraged. For more information, visit www.ncsu.edu/diversity/CavellBrownieScholarsProgram.php or contact Marcia Gumpertz, Box 7527, North Carolina State University, Raleigh, NC 27695-8203; (919) 515-7826; gumpertz@ncsu.edu.

5–7—16th ISSAT International Conference on Reliability and Quality in Design, Washington, DC

For more information, visit www.issatconferences.org or contact Conference Secretary, P.O. Box 1504, Piscataway, NJ 08855; rqd@issatconferences.org.

16–18—Measurement, Design, and Analysis Methods for Health Outcomes Research, Boston, Massachusetts

Participants will learn to design, implement, and analyze health outcomes studies and critically review and use outcomes research data for clinical decisionmaking, healthcare planning, and technology development. This program is geared toward introductory to intermediate outcomes research professionals. For more information, contact Rachel Werkman, CCPE Dept. A, 677 Huntington Ave., Boston, MA 02115; (617) 384.8692; ccpemarketing@hsph.harvard.edu and mention reference code MDA10-CAL02.

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 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.

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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, Research Triangle Park, 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 Fajfrová, 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 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, Research Triangle Park, NC 27709; (919) 685-9350; info@samsi.info.

13–15—ENBIS 2010 – 10th Annual Conference of the European Network for Business and Industrial Statistics, Antwerp, Belgium

This conference will include keynote lectures, invited and contributed sessions, workshops and pre- and post-conference courses. The social program will include a reception at Antwerp City

Hall and dinners in the medieval cellars in downtown Antwerp and Marble Hall of the Antwerp Zoo. For more information, visit www.enbis.org or contact Peter Goos, Prinsstraat 13, Antwerp, International 2000, Belgium; +3232654059; peter.goos@ua.ac.be.

13–17—RSS 2010 International Conference, Brighton & Hove, United Kingdom

The annual conference of the Royal Statistical Society seeks to bring together statisticians, researchers, analysts, and other users of statistics to hear, digest, and discuss the latest research and developments in statistics. The conference will feature leading international speakers on highly topical subjects. For more information, visit www.rss.org.uk/rss2010 or contact Paul Gentry, 12 Errol St., London EC1Y 8LX, London, International EC1Y 8LX, UK; +020 7614 3918, conference@rss.org.uk.

19–22 —Applied Statistics 2010 (AS2010), Ribno (Bled), Ljubljana, Slovenia

This conference will provide an opportunity for researchers, data analysts, and other professionals to exchange their knowledge. Cross-discipline and applied paper submissions are welcome. For more information, visit <http://conferences.nib.si/AS2010> or contact Andrej Blejčec, Vecna pot 111, Ljubljana, International SI-1000, Slovenia; +386 59 232 789; info.as@nib.si.

24–26—Info-Metrics: Theory and Application, Washington, DC

Discuss and study the latest developments of info-metrics across the sciences. Conference topics include theory and methods and applications across the sciences. Examples include economics/econometrics (theory and applications), finance and risk management, philosophy of science, predictive games, natural sciences, and social sciences. For more information, visit www.american.edu/cas/economics/info-metrics/conference/index.cfm or contact Amos Golan, 4400 Massachusetts Ave., NW, Washington, DC 20016; (202) 885-3783; info-metrics@american.edu.

»25—Statistics Symposium, Washington, DC

This symposium will celebrate the 75th anniversary of the department of statistics at The George Washington University. The event will highlight a variety of theoretical and applied statistical research. For more information, visit www.gwu.edu/~stat/75th or contact Tapan Nayak, Department of Statistics, The George Washington University, Washington, DC 20052; (202) 994-6549; tapan@gwu.edu.

October

8—Second HEC Finance and Statistics Conference, Paris, France

This conference will gather experts in financial economics, econometrics, and statistics to discuss volatility modeling, simulation-based estimation, and asset pricing under incomplete information. Invited speakers include Yacine Aït-Sahalia, Jianqing Fan, Peter C. B. Phillips, Nick Polson, and Pietro Veronesi. Contributed posters may be submitted until July 31. For more information, visit www.hec.fr/financeandstatistics2010 or contact Veronika Czellar, 1, rue de la Liberation, Jouy en Josas, International 78351, France; +33139677364; czellarv@hec.fr.

10–12—Midwest SAS Users Group Conference, Milwaukee, Wisconsin

This conference will offer presentations, workshops, and tutorials to enhance attendees' SAS skills, as well as opportunities to network with other SAS users. Staff from SAS Institute will be available to provide expertise and insight. Conference attendees are encouraged to present papers on a variety of topics, including statistics, modeling, data mining, forecasting, pharmaceutical applications, health care, health insurance, and life sciences applications. For more information, visit www.mwsug.org/mil2010/index.htm or contact Doug Thompson, 501 West Michigan, Milwaukee, WI 53201; (414) 299-7998; Doug.Thompson@Assurant.com.

***14–16—Space-Time Statistics to Evaluate the Impacts of Climate on Health and Renewable Energy, Boulder, Colorado**

This workshop will include sessions on recent advances in climate change research, impacts on human health, and challenges in development and penetration of renewable energy. Technical sessions will cover recent developments in space-time statistical methods, Bayesian methodology, and extreme value analysis. A one-day short course will be offered on October 14, and there will be a poster session. For more information, visit www.stat.purdue.edu/envr2010 or contact Amanda Hering, Mathematical and Computer Sciences Department, Golden, CO 80401; ahering@mines.edu.

19–22—IX CLATSE (Latin American Congress of Statistical Societies), Viña del Mar, Chile

This meeting is for specialists and users of statistics to exchange results of scientific research, teaching experiences, and applications. For more information, visit www.clatse.org or contact Departamento Estadística, Universidad Valparaíso, Avenida Gran Bretaña 1901, Valparaíso, International 2350026, Chile; 56-32-2508320; info@clatse.org.

20–22—International Conference on Modeling, Simulation, and Control 2010, San Francisco, California

This conference is held under the World Congress on Engineering and Computer Science, organized by the International Association of Engineers. For more information, visit www.iaeng.org/WCECS2010/ICMSC2010.html or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK, Hong Kong; +852 3169 3427; wcecs@iaeng.org.

November

8–12—17th Annual Biopharmaceutical Applied Statistics Symposium, Hilton Head Island, South Carolina

This symposium will provide a forum for

pharmaceutical, medical, and regulatory science professionals to share timely and pertinent information concerning the application of biostatistics in biopharmaceutical environments. For more information, contact Ruth Whitworth, P.O. Box 8015, Statesboro, GA 30460; (912) 478-7904; bass@georgiasouthern.edu.

10–13—2010 American Evaluation Association (AEA) Annual Conference, San Antonio, Texas

This meeting is expected to bring together about 2,500 evaluation practitioners, academics, and students in a collaborative, thought-provoking, and fun atmosphere. The conference will be broken down into 44 topical strands that examine the field from a particular methodology, context, or issue of interest to the field and the presidential strand, highlighting this year's presidential theme of evaluation quality. For more information, contact Heidi Nye, 16 Sconticut Neck Road, #290, Fairhaven, MA 02719; (888) 232-2275; info@eval.org; www.eval.org/eval2010/default.asp.

December

5–10—International Biometric Conference, Florianopolis, Brazil

This conference will bring together approximately 800 statisticians and others interested in the development and application of statistical and mathematical theory and methods to the biosciences. The meeting program includes oral and poster presentations of methodological advances, applications to specific subject-matter challenges, and educational offerings. Special celebratory events are planned. For more information, visit www.rbras.org.br/~ibcfloripa2010 or contact Dee Ann Walker, 1444 I St. NW, Washington, DC 20005; (202) 712-9049; info@tibc.org.

***5–10—66th Annual Deming Conference on Applied Statistics, Atlantic City, New Jersey**

This conference will focus on recent developments in statistical methodologies in 12 three-hour tutorials. Attendees will receive bound proceedings of the presentations.

The conference will be followed by two parallel short courses: Bayesian Adaptive Clinical Trials and SAS for Mixed Models. For more information, contact Walter Young, 16 Harrow Circle, Wayne, PA 19087-3852; (610) 989-1622; demingchair@gmail.com.

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 international statisticians to discuss new work. The theme for the 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.

»15–17—Borrowing Strength: Theory Powering Applications - A Conference in Honor of Lawrence Brown's 70th Birthday, Philadelphia, Pennsylvania

This workshop will emphasize areas of statistical research offering innovative approaches to problems arising in various branches of the sciences. It also will cover topics of fundamental statistical theory having broad applicability. In addition to the core invited talks, the workshop will feature poster and discussion sessions. For more information, visit stat.wharton.upenn.edu/~zhangk/BS/index.htm or contact Linda Zhao, 3730 Walnut St., Philadelphia, PA 19104; (215) 898-8228; lzhao@wharton.upenn.edu.

»16–18—International Conference on Applied Statistics and Financial Mathematics, Hong Kong, China

ASFM2010 will bring together leading international researchers concerned with theoretical and practical aspects of applied statistics and financial mathematics. Its main aims are to promote active collaboration between practitioners in these areas and applied mathematicians and acquaint early career researchers with

the current state of the art. For more information, visit www.polyu.edu.hk/amal/events/conference/asfm2010 or contact Shermie Li, HJ609, Core J, Department of Applied Mathematics, The Hong Kong Polytechnic University, Hong Kong, International, China; masfm10@inet.polyu.edu.hk.

»26–28—International Conference on Theory and Applications of Statistics, Dhaka, Bangladesh

This conference will bring together statisticians from all over the world to explore new developments in statistical theory and applications to teaching, research, and the use of statistics in policymaking, with the focus on developing countries. The conference will include keynote speeches and plenary, invited paper, and contributed paper sessions. In addition, there will be workshops on special topics. The deadline for submitting abstracts for contributed papers is July 15. For more information, visit www.dusdaa.org/conference2010 or contact Mir Masoom Ali, Dept. of Mathematical Science, Ball State University, Muncie, IN 47306-0490; (765) 285-8640; mali@bsu.edu.

2011

January

3–5—International Conference on Mathematical Sciences in Honor of A. M. Mathai, Pala, Kerala, India

This conference will celebrate the 75th birthday of A. M. Mathai and mark the golden jubilee of the department of statistics at St. Thomas College. Topics to be covered include integral transforms and special functions, differential equations and applications, functional equations and fractional calculus, real and complex analysis, applied problems of analysis, theoretical and applied problems of mechanics, astrophysics, distribution theory, stochastic processes, statistical inference, multivariate analysis, mathematical and stochastic modeling, computation, and simulation. For more information, visit

www.stcp.ac.in/seminar/ICMS/ICMS.htm or contact Thomas Mathew, Department of Mathematics and Statistics, Baltimore, MD 21044; (410) 455-2418; mathew@umbc.edu.

*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/mcmskil/index.html or contact Brad Carlin, MMC 303, Division of Biostatistics, School of Public Health, 420 Delaware St. SE, Minneapolis, MN 55455; (612) 624-6646; brad@biostat.umn.edu.

April

»21–24—International Conference on Probability, Statistics, and Data Analysis (ICPSDA-2011), Raleigh, North Carolina

This conference aims to provide a forum for leading experts and young researchers to discuss recent progress in statistical

theory and applications, thereby providing new directions for statistical inference in various fields. The conference will include plenary, invited, and topic-contributed sessions. For more information, visit www.iisaconference.info or contact Sujit Ghosh, Department of Statistics, North Carolina State University, Raleigh, NC 27695-8203; (919) 515-1950; iisa.conf@gmail.com.

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; maggarwal@memphis.edu.

June

20–24—Seventh International Conference on Mathematical Methods in Reliability, Beijing, China

This international conference will focus on theory, methods, and applications of reliability models and associated inferential issues. For more information, visit www.mmr2011.cn or contact Lirong Cui, Beijing Institute of Technology, School of Management and Economics, Beijing, International PRC, China; +1 905 525 9140; Lirongcui@bit.edu.cn.

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.

30–7/3—Statistics 2011 Canada/IMST-2011-FIM XX, Montréal, Quebec

This conference is dedicated to all areas of mathematical and statistical sciences. In addition to traditional theoretical/applied areas, interdisciplinary research is encouraged. Historically, this conference has concentrated on applied and theoretical statistics, Bayesian statistics, bioinformatics, biostatistics, combinatorics, computer and information sciences, design and analysis of experiments, ergodic theory, functional analysis, graph theory, multivariate analysis, number theory, partial differential equations, and topology. For more information, contact Yogendra Chaubey, 1455 de Maisonneuve Blvd. W., Montréal, Quebec H3G 1M8, Canada; +1 514 848 2424, ext. 3258; stat2011@mathstat.concordia.ca.

July

3–6—2nd IMS Asia Pacific Rim Meetings, Tokyo, Japan

This meeting series provides a forum for scientific communication and collaboration among researchers in Asia and the Pacific Rim. The program will cover a range of topics in statistics and probability, as well as recent developments and the state of the art in a variety of modern research topics and applications. For more information, contact Runze Li, Department of Statistics, Penn State University, University Park, PA 16802-2111; (814) 865-1555; ril4@psu.edu.

*30–8/4—2011 Joint Statistical Meetings, Miami Beach, Florida

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September

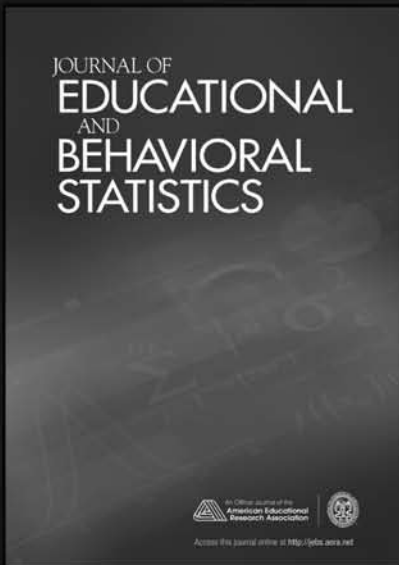
4–8—11th European Network for Business and Industrial Statistics (ENBIS) Conference, Coimbra, Portugal

Theoretical and practical papers covering all areas of business and industrial statistics are invited. For more information, visit www.enbis.org or contact Marco P. Seabra dos Reis, Department of Chemical Engineering, University of Coimbra, Polo II, Rua Sílvio Lima, Coimbra, International 3030-790, Portugal; +351 239 798 700/727; marco@eq.uc.pt.

December

28–31—International Conference on Advances in Probability and Statistics – Theory and Applications: A Celebration of N. Balakrishnan's 30 Years of Contributions to Statistics, Hong Kong, China

This conference will be held as a tribute to N. Balakrishnan for his 30 years of contributions to statistics. It will feature topics in distribution theory, reliability and lifetime data analysis, censoring methodology, and ordered data analysis. The conference aims to bring together researchers interested in theory and applications of probability and statistics to discuss recent developments and suggest future research directions. For more information, visit <http://faculty.smu.edu/ngh/icaps2011.html> or contact Hon Keung Tony Ng at ngh@mail.smu.edu. ■



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California

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Ron Brookmeyer (biostatsearch@ucla.edu) and refer to "AIDS Biostatistics Postdoctoral Position" in letter. Review of applications will begin immediately. Open to U.S. citizens or permanent residents. UCLA values diversity and is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

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Colorado

■ National Jewish Health, Denver, Colorado. Assistant professor in division of biostatistics and bioinformatics. Responsibilities include collaboration with multidisciplinary clinical research groups. Some teaching is part of the promotion process. Doctorate in statistics/biostatistics and experience with genetic and pathway analysis required. Missing data and clinical trials experience a plus. Interested candidates should send their CV to Sandi Uno at unos@njhealth.org. EOE.

Illinois

■ Rush University Medical Center seeks outstanding candidates at rank of associate or full professor to lead section in the department of preventive medicine. This nationally recognized department conducts behavioral and multilevel clinical trials focusing on chronic disease, women's health. 3+ years of relevant experience and research independence are

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Biostatistics Senior Manager

As a Biostatistics Senior Manager, you will influence and contribute to the development strategy, defend statistical approaches internally and externally, and independently lead large and/or complex studies and/or projects. Preferred qualifications are a Doctoral degree in Statistics/Biostatistics or other subject with high statistical content and 3 or more years of post-graduate statistical experience in the pharmaceutical industry or medical research, or a Master's degree in Statistics/Biostatistics or other subject with high statistical content and 6 or more years of post-graduate statistical experience in the pharmaceutical industry or medical research.

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■ Head biostatistician, division of digestive diseases, department of internal medicine. PhD in biostatistics or related field. Background in longitudinal analysis and field epidemiologic studies and prior supervisory/consulting experience required. Excellent communication/computing skills required. Letter, curriculum vitae, and 3 references: Martha Clare Morris, ScD, Medical Services Building, 610 S. Maple, Ste. 4700, Oak Park, IL 60304. Rush University Medical Center is an EOE.

Maryland

■ Statistical programmer. IMS Inc., in Rockville, MD, invites applications for candidates with a PhD in statistics or math. Knowledge of statistical packages, R, and C/C++ required. Background in genetic analysis a plus. Challenging career combining statistics and programming in cancer research for the National Cancer Institute. No work experience required. Send your resume to jobs@imsweb.com or see www.IMSWEB.com to apply. EOE.

Massachusetts

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

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MISSISSIPPI STATE UNIVERSITY MATHEMATICS & STATISTICS FACULTY POSITION IN STATISTICS

Applications are invited for a tenure-track position at the rank of Assistant or Associate Professor starting August 2010. Requirements include a doctoral degree in statistics or biostatistics, demonstrated success in or a strong potential for research, and a commitment to effective graduate and undergraduate teaching. ABD's will be considered. Salary is competitive and commensurate with experience and qualifications. Candidates in any area of statistics or biostatistics are encouraged to apply. The Department of Mathematics and Statistics offers an M.S. degree in statistics and a Ph.D. degree in mathematical sciences.

Opportunities exist for interdisciplinary research and consulting in applied areas such as agricultural sciences, engineering, forestry, geosciences, remote sensing, and biomedical research. For full consideration, send a detailed resume, transcripts, a summary of research plans, a statement of teaching philosophy, and three letters of recommendation, at least one of which addresses the applicant's teaching, to: Chair, Statistics Search Committee, Department of Mathematics & Statistics, P.O. Box MA, Mississippi State, MS 39762-9715. Further information about the department can be found at www.msstate.edu/dept/math. All applicants must also complete the online Personal Information Data Form located at www.jobs.msstate.edu. Select "Create Application" and choose "Personal Information Data Form" and apply to Requisition #5105. The screening process will begin on June 1, 2010 and will continue until the position is filled. Mississippi State University is an AA/EOE.

■ Research assistant professor, biostatistics, department of biostatistics, Boston University School of Public Health (<http://sph.bu.edu/bio>). Doctorate in statistics/biostatistics required. Experience in statistical genetics preferred, but not required. Applicant will be expected to participate in collaborative research projects in medical/genetics research and in applied methodological research. Send CV, description of research experience, and three references to: Search Committee, c/o Chary Ortiz (chary@bu.edu). Boston University is an EOE.

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FOURTH SEATTLE SYMPOSIUM IN BIostatISTICS: CLINICAL TRIALS

Sheraton Hotel, Seattle, Washington, USA
November 22-23, 2010



The University of Washington and Fred Hutchinson Cancer Research Center present the Fourth Seattle Symposium in Biostatistics: Clinical Trials. Presentations will encompass recent advances in: the role of biomarkers in design and interpretation of clinical trials, issues in multi-regional clinical trials, issues with biomarkers in individualized therapy, and safety in clinical trials. Short Courses will precede the Symposium on Saturday and Sunday, November 20-21.

SHORT COURSES (Fees: \$300 Half Day; \$600 Full Day; \$900 for Two Full Days)

Saturday, November 21

- Short Course 1: Statistical Design of Sequential Clinical Trials in R
8:00 AM-5:00 PM *Instructors: Scott Emerson and Daniel Gillen*
- Short Course 2: The Use of Genetic Marker Data in Clinical Trials
8:00 AM-5:00 PM *Instructors: Bruce Weir and Patrick Heagerty*

Sunday, November 22

- Short Course 3: Data Monitoring Committees: A Practical Approach
8:00 AM-5:00 PM *Instructors: Susan Ellenberg, Thomas Fleming and David DeMets*
- Short Course 4: Statistical Evaluation of Markers for Classification and Prediction
8:00 AM-12:00 PM *Instructors: Margaret Pepe and Holly Janes*
- Short Course 5: Practice Issues in the Conduct and Reporting of Large-Scale Clinical Trials: The Women's Health Initiative Experience
1:00-5:00 PM *Instructors: Garnet Anderson and Holly Janes*

SYMPOSIUM

(Fees: On or before 10/01/2010, \$300 Attendee \$75 Student; After 10/01/2010, \$350 Attendee, \$100 Student)

Monday, November 22, 8:00-10:45 AM: Biomarkers: Role in the Design and Interpretation of Clinical Trials

Ross Prentice (keynote): *Biomarkers as Mediators of Clinical Trial Results: The Women's Health Initiative Clinical Trial*

David DeMets: *Role and Potential of Surrogate Outcomes*

Laurence Freedman: *Nutrition Biomarkers in Chronic Disease Prevention Research*

Steve Self: *Biomarkers in Vaccine Development and Evaluation*

Monday, November 22, 11:00 AM-12:30 PM: Issues in Multi-Regional Clinical Trials (MRCT)

Janet Wittes: *Multi-Regional Clinical Trials: To Whom Do Their Results Apply?*

Invited Panel: *Overview: Issues in Multi-Regional Clinical Trials*

Monday, November 22, 1:45-5:45 PM: Biomarkers: Issues in Individualized Therapy

Robert O'Neill (keynote): *Recent Developments in the Use of Clinical Trials to Support Individualizing Therapies: A Regulatory Perspective*

Margaret Pepe: *Metrics for Quantifying and Comparing Markers Used for Treatment Selection*

Dan Sargent: *Biomarkers in Phase II Trials: Why, When, How?*

Rich Simon: *Clinical Trials for Predictive Medicine: New Paradigms for Design and Analysis*

Bruce Weir: *Using SNPs to Characterize Genetic Effects in Clinical Trials*

Lon Cardon: *Frontiers Beyond Patient Selection for Enhanced Efficacy*

Tuesday, November 23, 8:00 AM-12:55 PM: Safety

Robert Temple (keynote): *Past, Present and Future of Product Safety Assessments*

Thomas Fleming: *Identifying and Addressing Safety Signals in Clinical Trials*

Christy Chuang-Stein: *Quantitative Risk/Benefit Assessment*

Jesse Berlin: *Meta-analysis and Other Strategies for Pooling, Not Drowning, including T2DM Interventions and ESAs*

Invited Panel: *Overview: Issues in Identifying and Addressing Safety Signals*

More Symposium and Short Course information available online at: symposium.biostat.washington.edu



NRSA T32 Postdoctoral Fellowship
Interdisciplinary Women's Reproductive Health

The University of Texas Medical Branch in Galveston, TX is accepting applications for one postdoctoral fellow interested in pursuing an academic career in women's health research. This 2-year NIH funded fellowship provides formal and informal training in theory and methods as well as practical experience in conducting clinical research. Program faculty include national experts in statistics, epidemiology, and women's health who can offer many opportunities to participate in data analysis, manuscript preparation, and grant writing in a collaborative environment.

Who may apply: Applicants who have completed a MD, PhD, or equivalent degree in a discipline related to women's health. Must be US citizen, non-citizen national or permanent resident and able to commit full time effort to the program for 2 years.

To apply, send 1) a personal statement including career goals, a brief description of proposed research, and how this training will help achieve your career goals; **2)** a current CV; and **3)** 3 letters of reference to:

Abbey Berenson, MD, MMS at abberens@utmb.edu or Dan Freeman, PhD at dfreeman@utmb.edu

Michigan

■ University of Michigan Biostatistics Department has an immediate opening for a full or associate research professor. The department has particular interest in candidates with a track record related to clinical trials or health sciences research and the ability to work effectively in clinical and academic environment. Information available: www.sph.umich.edu/biostat. Contact Cathie Spino, Dept. of Biostatistics, 1415 Washington Heights, Ann Arbor, MI 48109-2029. EOE/AA.

North Carolina

■ The department of biostatistical sciences, Wake Forest University School of Medicine, Winston-Salem, NC, is seeking biostatistician applicants. Position requires MS in biostatistics or statistics with excellent written/verbal communication skills. Experience in biomedical consulting and statistical programming preferred. Responsibilities include collaboration

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For statisticians and statistical programmers, excellent quantitative abilities and communication skills (written, verbal and presentation) are a must with a high level of analytical and conceptual ability in order to provide strategic focus to projects. Candidates must have a proven track record of strong execution and results. For Biostatistics, opportunities are available for junior and experienced individuals; candidates must have a PhD in Statistics/Biostatistics or related field. For Programming opportunities, a Bachelors degree is required and an advanced degree in statistics or related area is strongly preferred. These positions require experience in the use of statistical software, particularly SAS®. Experience analyzing and reporting clinical research data is highly desired especially in Oncology therapeutic area.

To apply for this position, please visit: <http://www.novartisoncology.com/careers>

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with medical investigators on design, conduct, analysis, and presentation of single- and multi-center research studies. Interested individuals apply to: www.wfubmc.edu/Job-Openings. Job ID#13598. AA/EOE.

Ohio

■ Quantitative risk analysts, economic capital IV, experience required. Send resume to J. Poldruhi, KeyBank National Association, 127 Public Square, 9th Fl., Mailcode OH-01-27-0906, Cleveland, OH 44114. Must refer to job code 99978604. EOE.

Texas

■ JCPenney's Home Office is seeking a senior manager statistical analysis who will be responsible for managing the design, execution, and interpretation of

complex analysis involving data related to customers and business. Master's degree in statistics, operations research, mathematics, economics preferred. 8–10 years' experience in quantitative analysis and decision support. SAS, SQL, Teradata, and Unix desired. Send résumés to scatalin@jcpenney.com EOE.

Washington

■ Senior research statistician, Seattle Children's Research Institute. Requires MS in statistics, biostatistics, epidemiology/public health, or related field; a minimum of 2 years' related experience; and statistical computing experience using SAS, S-plus, R, and/or Stata. We offer competitive pay, generous paid time off, transportation discounts, and employee reward and recognition programs. For more information and to apply, visit us at www.seattlechildrens.org; Req# 10-795. EOE. ■

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Founded in 1911, The University of Hong Kong is committed to the highest international standards of excellence in teaching and research, and has been at the international forefront of academic scholarship for many years. Ranked 24th among the top 200 universities in the world by the UK's *Times Higher Education*, the University has a comprehensive range of study programmes and research disciplines spread across 10 faculties and about 100 sub-divisions of studies and learning. There are over 23,400 undergraduate and postgraduate students coming from 50 countries, and more than 1,200 members of academic and academic-related staff, many of whom are internationally renowned.

Department of Statistics and Actuarial Science

Applications are invited for the following appointments in the Department of Statistics and Actuarial Science, subject to funding, from September 1, 2010 or as soon as possible thereafter, with the possibility of renewal. The posts will initially be made on a three-year fixed-term basis. Appointment with tenure will be considered during the second three-year contract.

1. Professor/Associate Professor/Assistant Professor in Statistics/ Applied Probability (Ref.: RF-2009/2010-445)

2. Associate Professor/Assistant Professor in Actuarial Science (Ref.: RF-2009/2010-446)

The Department of Statistics and Actuarial Science is under the Faculty of Science and has representation on 4 Faculty Boards: Arts, Business & Economics, Science and Social Sciences. It serves the University and the discipline of Statistics and Actuarial Science through the inter-related functions of teaching, consultation and research. Information about the Department and its mission can be obtained at <http://www.hku.hk/statistics>.

For post (1), applicants should have a Ph.D. degree in statistics or related disciplines such as applied probability, statistical finance and actuarial science. Candidates with demonstrated ability of research and experience in teaching are preferred.

For post (2), applicants should have a Ph.D. degree in actuarial science or related disciplines such as applied probability and statistics. Candidates possess all or some of the following are preferred: (i) an actuarial qualification from a recognised professional body of actuaries; (ii) work experience in actuarial science and mathematical finance; and (iii) teaching experience in actuarial science, probability, stochastic calculus and mathematical finance.

The level offered depends on the appointee's years of experience, publications and on-going research. In line with the University's guideline, the primary criterion for a Professorship is demonstrated excellence in research and scholarship, but evidence of leadership in curriculum, pedagogy development and teaching effectiveness will also be taken into account.

Annual salaries will be in the following ranges (subject to review from time to time at the entire discretion of the University):

Professor : HK\$897,060 - 1,256,460
Associate Professor : HK\$661,980 - 1,023,720
Assistant Professor : HK\$504,480 - 779,640

(approximately US\$1 = HK\$7.8)

Applicants should indicate clearly the reference number and *which* level they wish to be considered for.

A highly competitive salary commensurate with qualifications and experience will be offered. The appointments will attract a contract-end gratuity and University contribution to a retirement benefits scheme, totalling up to 15% of basic salary, as well as leave, and medical/dental benefits. Housing benefits will be provided as applicable. At current rates, salaries tax does not exceed 15% of gross income.

Further particulars and application forms (152/708) can be obtained at <http://www.hku.hk/apptunit/>; or from the Appointments Unit (Senior), Human Resource Section, Registry, The University of Hong Kong, Hong Kong (fax: (852) 2540 6735 or 2559 2058; e-mail: senrapp@hku.hk). **Review of applications will start from March 1, 2010.** Candidates who are not contacted within 6 months of the date of their applications may consider their applications unsuccessful.

The University is an equal opportunity employer and is committed to a No-Smoking Policy

The University of Michigan Center for Human Growth and Development (CHGD)

CHGD at the University of Michigan invites applications for a faculty position at the rank of Associate Research Scientist in the area of biostatistics/bioinformatics. This is a research based appointment focused in the application of statistics in an interdisciplinary setting related to medical, social science and public health fields, including the application of advanced statistical methods to longitudinal data using linear and nonlinear mixed models, survival analysis and structural equation modeling.

The Center for Human Growth and Development (CHGD) is internationally known for its leadership in integrating biological, behavioral, and cultural aspects of human development. It currently has 32 faculty members, who also hold tenure appointments in one of the University's schools or colleges, and 5 faculty associates who hold research appointments at CHGD.

Candidates are expected to develop an internationally recognized program of research for the development and application of Bayesian models for analyzing longitudinal outcomes with nonignorable missing data in projects of medical and public health science. A Ph.D. in biostatistics is required. The position will remain open until filled, but preference will be given to applicants who have submitted all requested materials prior to July 31, 2010. Applicants should send the following (in PDF format): a curriculum vitae, copies of up to three reprints, a one- to two-page summary of research plans, and arrange to have three letters of reference sent directly to: gubaci@umich.edu.

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

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Position available for a survey sampling statistician with 3 or more years of relevant experience. Responsibilities include sample design and selection, power calculations, frames development, weighting including nonresponse adjustment and benchmarking, imputation, and variance estimation. Must have a master's or doctoral degree in statistics and have very good writing skills. Coursework in sample survey design is highly desirable.

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BIostatISTICS FACULTY POSITION
University of California, Davis, School of Medicine
Department of Public Health Sciences, Division of Biostatistics

Position #PU-05R-10: The University of California, Davis, School of Medicine is recruiting for a junior academic position at the Assistant/Associate Professor level (100% FTE).

As an assistant/associate faculty member, the appointee's responsibilities will include collaborative research, independent research and teaching biostatistics, as well as mentoring students. Applicants must possess a doctoral degree in biostatistics or statistics and have experience in teaching biostatistics to biostatistics or statistics and non-specialist audiences. An established record of collaborative and independent methodological research is required, including demonstrated experience with the design, analysis and reporting of epidemiologic and medical studies and experience in obtaining grant funding. Experience with cancer research, imaging, clinical trials, translational or health services research is highly desirable. Previous experience in Center or Program Project cores is highly desirable. Demonstrated experience or potential for assuming administrative and leadership roles for biostatistics in a School of Medicine or School of Public Health setting are highly desirable. Preference will be given to candidates with strong written and verbal communication abilities. Candidates must have the ability to work cooperatively and collegially within a diverse environment.

Candidates should send a cover letter referencing position #PU-05R-10, a CV and the names of five references to Laurel A. Beckett, Ph.D., (labeckett@phs.ucdavis.edu) Professor and Chief, Division of Biostatistics, MS1C, University of California, Davis, CA 95616. To receive full consideration, applications must be received by September 30, 2010. However, applications will be accepted and the position will remain open until filled, through June 30, 2011.

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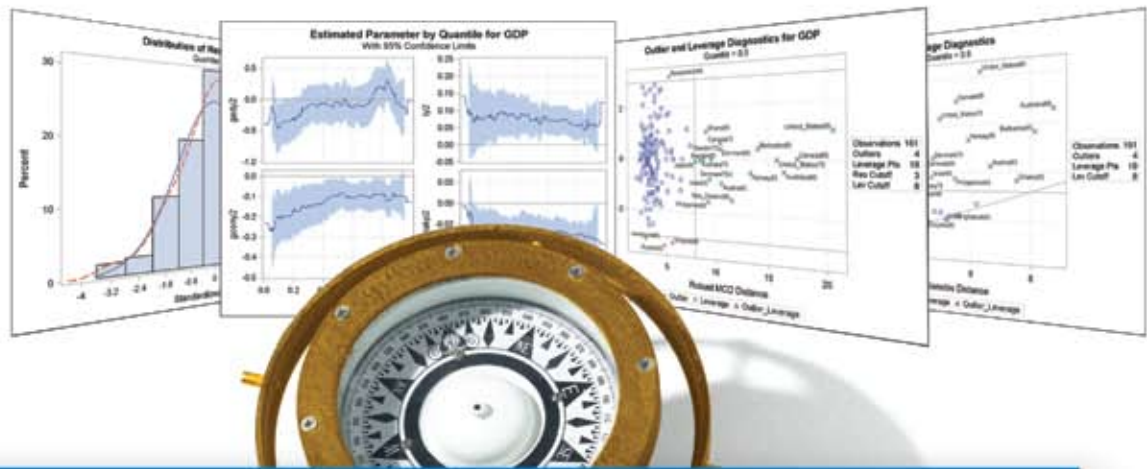
Penn State World Campus	p. 47
Springer	p. 32

PROFESSIONAL OPPORTUNITIES

Amgen	p. 54
The Cambridge Group	p. 59
Capital One	p. 56
Mississippi State University	p. 56
NORC	p. 59
Novartis	p. 58
Smith Hanley	p. 53
U.S. Census Bureau	p. 55
University of California, Davis	p. 61
The University of Hong Kong	p. 60
University of Michigan	p. 60
The University of Texas Medical Branch	p. 58
University of Washington	p. 57
Westat	p. 60

SOFTWARE

Cytel	p. 26
JMP, a business unit of SAS	cover 4
MacKichan Software	p. 31
Minitab	centerfold
NCSS	p. 33
Salford Systems	p. 46
SAS	cover 3
SAS/STAT	p. 15
StatSoft	cover 2
StatPoint Technologies/Statgraphics	centerfold
TexaSoft	p. 51



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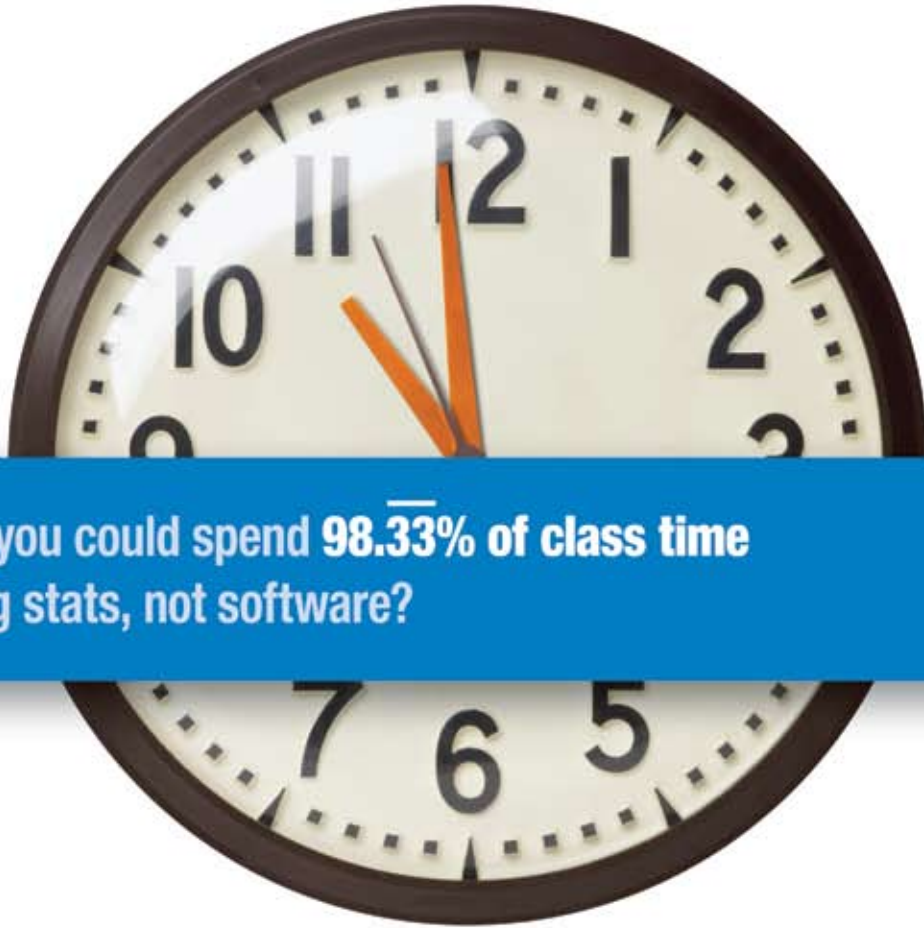
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