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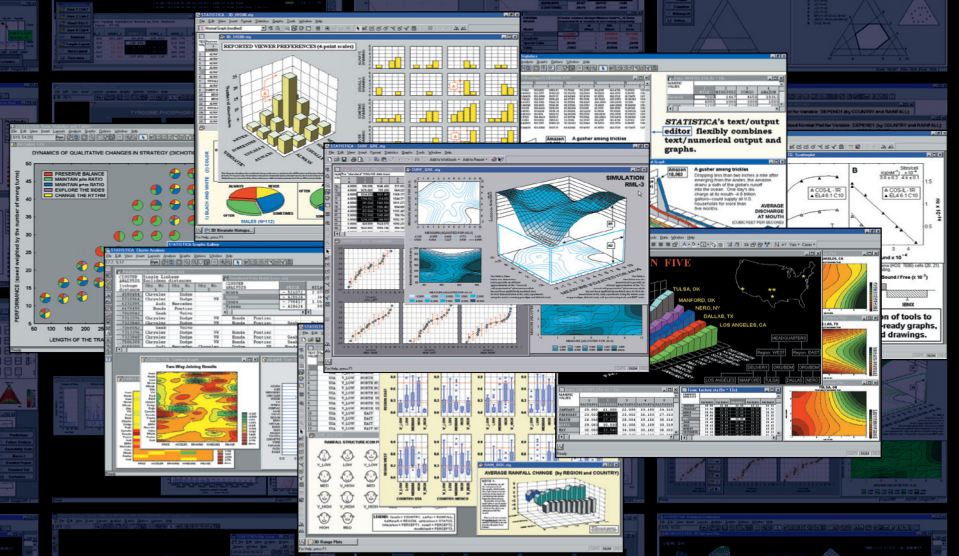

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American Statistical Association

VISION STATEMENT OF THE ASA

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 OF THE ASA

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

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Master's Notebook

Statisticians Are Heroes? **p. 43**

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

Niki Arya is a principal statistician for GlaxoSmithKline (GSK). She has been working for GSK for six years, specializing in designing and analyzing the data for early-phase oncology clinical trials. She earned a BS in chemistry from The University of North Carolina at Chapel Hill, an MS in epidemiology from the University of Virginia, and an MS in biostatistics from The University of North Carolina at Chapel Hill.

STAT*tr@k*

Some Advice for Beginning Graduate Students in Statistics **p. 45**

This column is geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, *Amstat News* managing editor, at *megan@amstat.org*.

Contributing Editors

Paul Bernhardt is a third-year graduate student studying statistics at North Carolina State University. His main research interests are in biostatistics, though he has not yet begun his dissertation work.

Bernhardt

Franklin

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cover design and photo by Melissa Muko

Let's All Celebrate the First **World Statistics Day**

United Nations Secretary-General Ban Ki-Moon—when declaring October 20, 2010—the first World Statistics Day, said, "Let us make this historic World Statistics Day a success by acknowledging and celebrating the role of statistics in the social and economic development of our societies and by dedicating further efforts and resources to strengthening national statistical capacity."

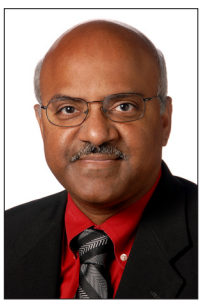
World Statistics Day is the brainchild of the United Nations Statistics Division, created with the goal of making the day a global celebration and bringing more credibility and attention to national celebrations. Other goals include celebrating the service provided by the global statistical system, helping to strengthen the awareness and trust of the public in official statistics, and serving as an advocacy tool to support the work of statisticians across different settings. It is a day "to raise awareness of the many contributions of official statistics premised on the core values of service, integrity, and professionalism," said Ki-Moon. "It will address a broad audience, ranging from decisionmakers and data providers to the generally very heterogeneous data-user community, at the national, the regional, and the global levels. The celebration will encourage their support of statistics, bringing together users and producers of statistics."

What a wonderful idea! As I mentioned in my address at JSM 2010 in Vancouver, "Government statisticians work hard and their innovations are at times underappreciated. There is much to celebrate in official statistics with its many accomplishments." Let me take World Statistics Day as another opportunity to thank all statisticians who work on federal statistics around the globe for their valuable service to humanity. Let us all celebrate their service, professionalism, and integrity.

The entire world is celebrating World Statistics Day. Thailand issued a population and housing census 2010 commemorative stamp. A conference is being held in Geneva, Switzerland, titled "Measuring a Globalized World: The Geneva Contribution." Under the high patronage of His Majesty the King Mohammed VI, the Kingdom of Morocco is celebrating World Statistics Day with the theme "Statistics: Concept, Method, and Ethics."

The ASA, Royal Statistical Society, and National Institute of Statistical Sciences also are organizing activities to celebrate this great occasion. And with the help of staff members from the ASA, I have contacted many statistics and biostatistics department chairs with ideas for celebrations. Closer to my home—in Raleigh, North Carolina—SAS Institute is celebrating official statistics and students at North Carolina State University are organizing various activities, including a seminar by Bob Groves, director of the U.S. Census Bureau, on October 18.

November elections are not far away, and your local public policymakers may be interested in a photo opportunity on World Statistics Day. Please do not pass up a good opportunity to educate others about statistical literacy or promote the practice and profession of statistics. As you know, policymakers do make use of statistics, so why not help them use those statistics properly? For example, the late Rep. Richardson Preyer of North Carolina said, "Statistics do not always lie, but they very seldom voluntarily tell the truth. We can argue any position on this bill from a set



Sastry Pantula

of statistics and some study or another." Let us work to increase the public's trust of and improve the public opinion of official statistics.

I also contacted (nonrandomly) chief statisticians at various government agencies and asked them to say a few words about their agencies, which I include below. (By the way, as I have encouraged before, these folks make excellent speakers for your students and colleagues. Please consider inviting one of them, and thank them personally for their service to our country and profession.)

"Statistics are the chapter and verse of the story of the world around us. They provide an impartial description of our economy beyond that which we directly experience, which then allows us to understand how our own experience measures up."
– J. Steven Landefeld, Director, Bureau of Economic Analysis

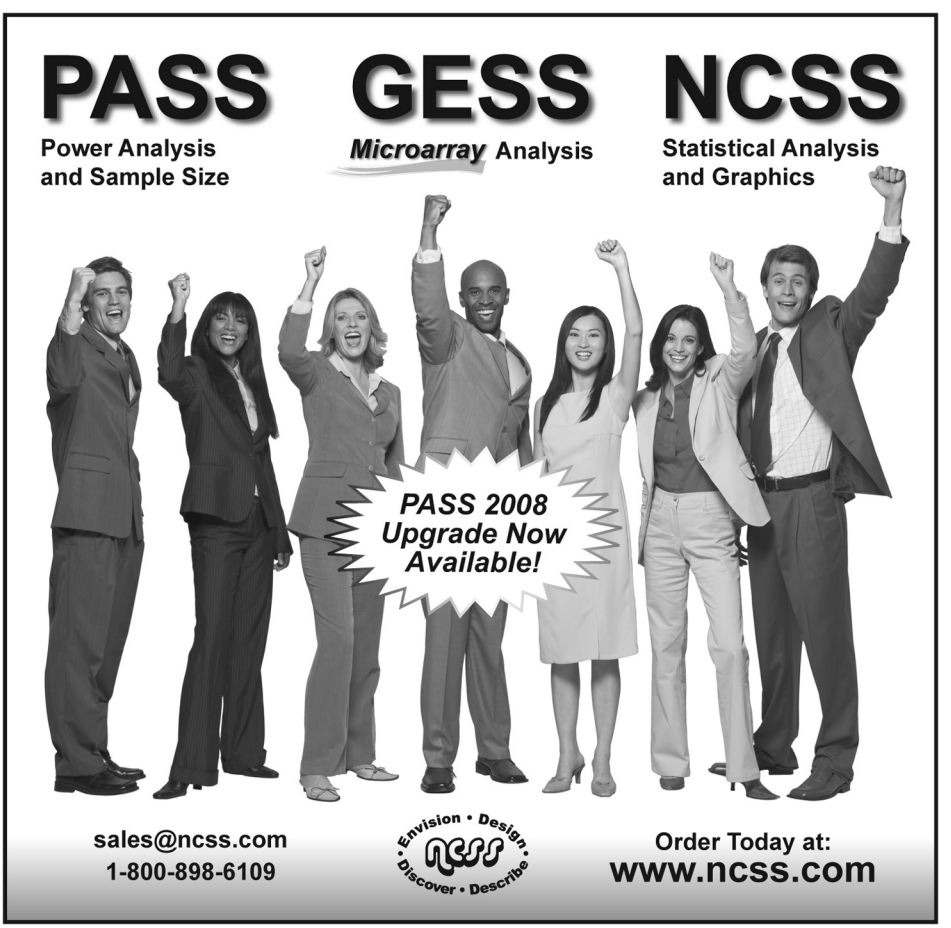
"Carroll Wright, the first commissioner of BLS, argued in 1888 that labor statistics was a means of promoting the 'material, social, intellectual, and moral prosperity' of the working people. Over the years, BLS has done that by producing data that inform private decisionmaking, as well as influence and shape policies which affect the well-being of American workers and their families, retirees, businesses, health care, retirement benefits, the minimum wage, work force education and training, economic development, workplace safety, and consumer spending."
– Keith Hall, Commissioner, Bureau of Labor Statistics

"Science Resources Statistics—a division of the U.S. National Science Foundation—serves as the nation's central clearinghouse for the collection, interpretation, and analysis of data about domestic and international resources devoted to science, engineering, and innovative activities."
– John R. Gawalt, Program Director, Division of Science Resources Statistics, National Science Foundation

"Official statistics play a vital role in achieving good government. To this end, the IRS Statistics of Income Division produces federal tax statistics that are used by our nation's leaders to shape economic and tax policy."
– Susan Boehmer, Director, Internal Revenue Service, Statistics of Income Division

"Energy touches us every day—moving us from place to place, cooling our homes, and lighting our workplaces. It also affects the world around us, as it fuels the global economy and impacts our environment and international relations. People who want to make informed decisions, or simply understand energy better, turn to the U.S. Energy Information Administration as the premier source of independent energy statistics and analysis."
– Richard Newell, U.S. Energy Information Administration

"Agricultural statistics create a level playing field for producers and consumers of agricultural commodities, stabilizing prices for the food we eat."
– Cynthia Clark, Administrator, National Agricultural Statistics Service



"Science provides the foundation for credible decisionmaking. Only through adequate knowledge about the risks to human health and ecosystems, and innovative solutions to prevent pollution and reduce risk, can we continue to enjoy a high-quality life. With a better understanding of environmental risks to people and ecosystems, EPA can target the hazards that pose the greatest risks and anticipate environmental problems before they reach a critical level."
– *An Administrator at EPA, sent by Barry Nussbaum, Chief Statistician, Environmental Protection Agency*

"Statistics produced by the federal government inform public and private decisionmakers in shaping policies, managing and monitoring programs, identifying problems and opportunities for improvement, tracking progress, and measuring change. The programs of our statistical system furnish key information to guide decisionmakers as they respond to pressing challenges, including those associated with the economy, agriculture, crime, education, energy, the environment, health, science, and transportation. In a very real sense, these statistics provide data users with a lens to focus the myriad activities of our society into a more coherent picture of the status, progress, and trends in our nation. The ability of governments, businesses, and individuals to make appropriate decisions about budgets, employment, investments, taxes, and a host of other important matters depends critically on the ready availability of relevant, accurate, and timely federal statistics. Our economy's complexity, growth, and rapid structural changes require that public and private leaders have unbiased, relevant information on which to base their decisions."
– *Katherine Wallman, Chief Statistician, U.S. Office of Management and Budget and Past President of the ASA*

It is a great time to be a statistician. Let us celebrate on October 20. Let us also show support for our fellow statisticians around the world, especially those in Canada.

For more information about World Statistics Day, visit *http://unstats.un.org/unsd/wsd/Default.aspx*.

Sastry G. Pantula

The Whys of Central Government Statistics in Democracies

Robert M. Groves

At this time, when change is afoot in Canada and the United Kingdom regarding their censuses, it might be a good idea to ask the question, "Why does the central government provide statistical information to the society?" Indeed, why couldn't some other entity in the society provide such information; why do we even need the information?

Many of the roots of central government statistical agencies lie in notions associated with democratic forms of government. If the citizenry is to make good decisions in their electoral behavior, they need to assess the current status of society. To the extent that things are worse, they should vote for changes as part of the accountability of the government to the electors. To the extent that things are better, they should support stasis.

Such statistical information, therefore, is a source of strength to the people of the society in exercising their responsibility to direct the government as citizens. In most democracies, central government institutions have arisen to provide this statistical information. Since they are controlled by the same democratic processes as the rest of the government, they can be mandated to serve the full society.

Key to their success is that the statistics the agencies produce are viewed as credible. Key to the credibility is that the estimates be viewed as free from a political point of view, that they be produced in some objective way, and that they be delivered without interpretation from some political lens. For this reason, statistical agencies need to be vigilant to separate their activities from the policymaking and program execution that occupies other agencies in the central government.

It is true that there is a burden connected to the collection of data. Indeed, businesses and households are asked to produce the data key to the statistical feedback loop of democracies. The burden must, in some sense, be fairly spread (that's why probability sampling is desirable as a tool to ensure equity) and in proportion to the informational benefits to the society. It is appropriate for the society to discuss this balance of burden and benefit, and it is a duty of the official statistician constantly to seek ways to reduce the burden without reducing the benefits. Said in another way, it is not useful to think only of the benefits of the statistical information or only of the burdens to the society to produce it. The balance of the two is required to find wise solutions for central government statistics.

Highlights of the July 2010 ASA Board of Directors Meeting

ASA President Sastry Pantula led a board meeting heavily focused on implementing the ASA's strategic plan (*www.amstat.org/about/strategicplan.cfm*) July 30–31, during the Joint Statistical Meetings in Vancouver, British Columbia. Here are the highlights:

- Sally Morton presented the report of the 2010 Visibility and Impact on Policy Making Workgroup. The workgroup's task was to standardize the process for identifying emerging issues and provide timely response in public policy and science policy in collaboration with the ASA director of science policy and other statistical associations. The workgroup made eight recommendations, and staff members were charged with implementing them to the fullest extent possible within the constraints of budget and personnel resources.
- Jeri Mulrow presented the report of the 2010 Membership Growth Workgroup. See Page 11.
- Ron Wasserstein presented the report of the 2010 Public Awareness Workgroup. See Page 9. A primary activity of this group was to develop the ASA tagline, "Promoting the Practice and Profession of Statistics."
- Jessica Utts updated the board on the progress of the 2010 Education Workgroup. This workgroup was asked to develop a process for a significant discussion among academic units, industry statisticians, and government statisticians about the preparation of statisticians. The workgroup will report to the board in November.
- President-elect Nancy Geller presented nearly final details of her three strategic initiative workgroups for 2011. Specific aspects of three strategic plan areas (education, organizational efficiency, and public awareness) will be addressed by three workgroups. Pam Arroway, Janet Buckingham, and Tom Short, respectively, will chair these workgroups.
- The board received the report of the Committee on Nominations. Among its recommendations were the nominees for the 2011 ASA elections for offices beginning in 2012. Marie Davidian (North Carolina State University) and Jane Pendergast (University of Iowa) will be the candidates for president-elect, and Fred Hulting (General Mills) and David Morganstein (Westat) will be the candidates for vice president.
- The board approved the 2011 ASA budget, which had been discussed in detail at the board's annual budget meeting in June.
- As always, the board heard a report from the treasurer, Keith Ord. He reviewed the ASA's investment portfolio and discussed how five-year budget projections could be used for planning purposes.
- Vice President Nat Schenker, who is also chair of the Professional Issues and Visibility Council, presented the council's first annual report. He reviewed the council's structure and the nature of its committees, then provided a comprehensive look at current and future activities of the committees. Five issues for

Call for 2011 Student Internship Listings

If your organization would like to list an internship in the December 2010 issue of *Amstat News* and on the ASA website, fill out the form at *www.amstat.org/education/internshipopportunities.cfm* and return it to *educinfo@amstat.org* by October 20. Any 2011 internship listings received after October 20 will be posted on the ASA website only.

board consideration also were presented and discussed. Plans for follow-up were made.

- The board heard an update on a request for proposals from publishers to possibly partner with the ASA to publish its journals. A review process involving board and Committee on Publications members has been set up, and recommendations will come back to the board, perhaps in November.
- The board approved a revision to its policy for designating awards as "ASA awards." The revision was necessary to take advantage of the expertise of the new Awards Council.
- Through a generous gift from William I. Notz, a new annual award has been established for the best paper to appear in the *Journal of Statistics Education* during each calendar year. See Page 37.
- The board heard a report about the International Statistical Institute from its executive director, Ada van Krimpen. Van Krimpen attended the entire board meeting and provided valuable insight from the international perspective.
- Steve Pierson, director of science policy, updated the board on statistical literacy, research funding, and other advocacy initiatives.
- The board clarified for the record the interpretation of voting procedures with respect to Article XI of the ASA bylaws. This is important because board members who are employed by the federal government are restricted by statute from voting on certain matters.
- The board heard a report and recommendations from the Committee on Meetings and from staff members regarding the site for JSM 2016. Negotiations with two cities will be undertaken, and the Executive Committee of the Board will make the final decision soon.
- The board, as it does during each meeting, heard about issues and concerns related to chapters and sections from the respective council governing boards.

2010 ASA Board of Directors

Sastry Pantula, president

Nancy Geller, president-elect

Sally Morton, past president

Nat Schenker, third-year vice president

Christy Chuang-Stein, second-year vice president

Rod Little, first-year vice president

David Banks, third-year Council of Sections representative

Jeri Mulrow, second-year Council of Sections representative

Jessica Utts, first-year Council of Sections representative

Susan Hilsenbeck, third-year Council of Chapters representative

David Marker, second-year Council of Chapters representative

Tom Short, first-year Council of Chapters representative

Geert Verbeke, international representative

Karen Kafadar, publications representative

Keith Ord, treasurer

Ron Wasserstein, executive director

- Alan Karr, executive director of the National Institute of Statistical Sciences (NISS), made his annual report to the board. Karr said NISS continues to diversify, grow, and mature with new research projects (including Project TALENT), creation of affiliates clusters, appointment of a second assistant director, and plans for further expansion of its senior leadership and the NISS presence in Washington, DC.

The board next meets November 19–20 in Alexandria, Virginia. ■

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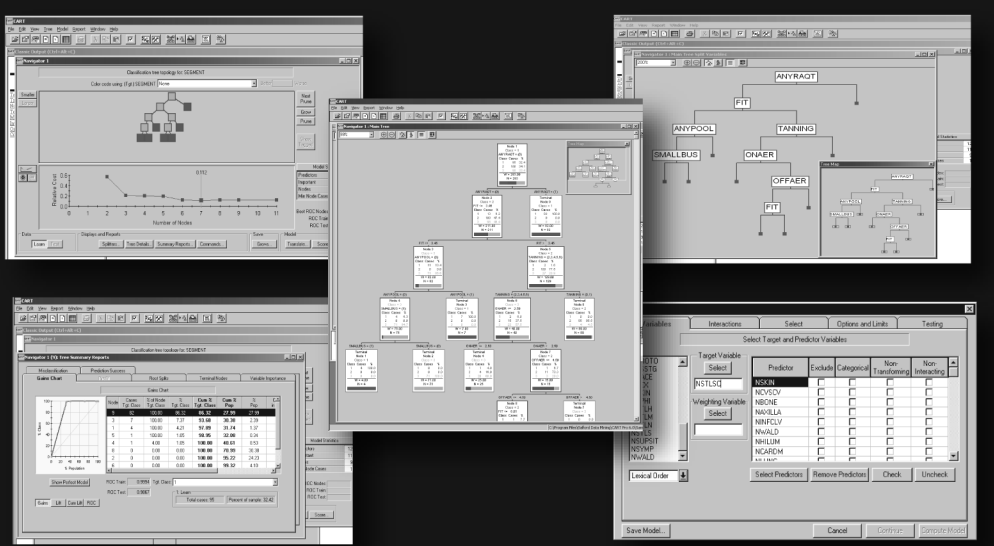

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ASA Tagline One Product of 2010 Public Awareness Workgroup

Capture the essence of the largest and arguably the most diverse statistical association in the world in eight words. That was one of the challenges presented to the 2010 Public Awareness Workgroup at JSM 2009. One year, three surveys, many meetings, hundreds of emails, and thousands of words later, the challenge was met.

On July 30, the ASA Board adopted "Promoting the Practice and Profession of Statistics" as the official tagline of the ASA.

"In simple and straightforward words, this tagline expresses the core of what the ASA does," said Sastry Pantula, ASA president. "It is the result of a process involving thousands of members. And it is even alliterative, rolling nicely off the tongue."

The process of developing the tagline and other communications tools began last year when Pantula announced his strategic initiatives for 2010. The Public Awareness Workgroup was charged with making a comprehensive assessment of the ASA's brand and image and developing a public awareness plan. The plan needed to address a variety of audiences and include a tagline and elevator pitch.

"From the outset, we sought to make decisions based on data," said Ron Wasserstein, ASA executive director and chair of the workgroup. "Taglines, or slogans, are more difficult to develop than they appear, and without data, decisions would be made based only on personal preference."

To illustrate the difficulties involved, Wasserstein asked workgroup members to imagine themselves as a business and try to come up with an eight-word slogan that would describe it. Workgroup members found it stimulating to consider the various dimensions of the task. The slogan needs to be recognizable (Would your friends agree it describes you?), understandable (Would others who don't know you well understand you better as a result?), unique (Would others have the same or similar slogan?), and, hopefully, interesting.

The workgroup undertook this task by first asking a few ASA members—then many more—to say what they thought were the primary purposes and activities of the ASA and what aspects made the ASA unique from other organizations. This was accomplished through two surveys. The workgroup then used the data generated from the surveys to develop categories or concepts for the tagline. Next, sample taglines for the various categories were debated and tested within the workgroup, and, finally, a small set of possible taglines was tested on a sample of the membership.

The workgroup used the same data and a similar approach to develop a longer, but still brief, description of the ASA. Such descriptions are often referred to as an "elevator pitch." The idea is to imagine being able to answer during an elevator ride someone who asks, "What does the American Statistical Association do?"

Two versions of this description were created. The informal version, to be used in those moments of casual conversation about the ASA, is found in the sidebar to this article.

> "Promoting the Practice and Profession of Statistics"

ASA's Elevator Pitch

While developing the elevator pitch, the ASA's Public Awareness Committee answered four questions about the ASA.

Who are we?

The ASA is the largest community of statisticians in the world.

What do we do?

Our members work in industry, government, and academia, doing research and promoting high-quality statistical practice.

How do we do it?

We support the development and use of statistics through publications, education, meetings, and advocacy.

Why do we do it?

Good use of statistics leads to better informed public policy and improved human welfare.

Workgroup Members

Mingxiu Hu, chair of the Committee on Membership Retention and Recruitment

Scott Evans, chair of the Development Committee

Tim Keyes, chair of the Membership Surveys Committee

David Marker, chair of the Scientific and Public Affairs Advisory Committee

Jean Recta, Margaret Nemeth, and Jerry Keating, at-large members chosen by the president-elect

Rosanne Desmone, ASA's public relations specialist

Ron Wasserstein (chair), executive director

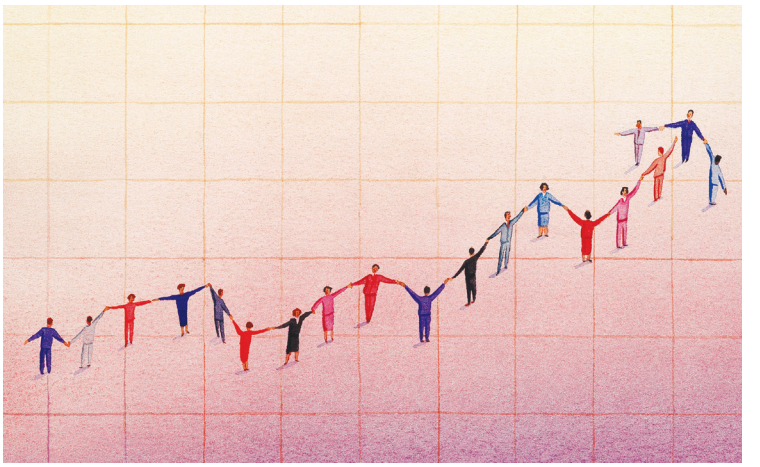
"We hope members will 'memorize' this description as a way of communicating consistently and effectively about our association," Wasserstein said. "There is an enormous lack of understanding about who we are and what we do, and this is one small step toward addressing that lack."

A formal version of the description, to be used in written communication, is available on the ASA website at *www.amstat.org/about*.

The workgroup's efforts did not stop with the tagline and elevator pitch. Workgroup members described, in broad terms, two types of audiences for the ASA's message. The "impact audience" is made up of those people who are or who eventually could be members of the association. The "influence audience" is made up of those who will not be interested in membership, but whose opinions and perspectives the ASA hopes to affect (the media, policymakers, etc.). Plans for how to use these tools and others to reach these audiences effectively also were developed and will be refined and implemented in the months ahead. ■

Workgroup Offers Ideas for Growing Membership

Jeri Metzger Mulrow



Do you remember when you joined the American Statistical Association and why? Maybe you joined because of the excellent journals or conferences sponsored by the ASA. Maybe you joined to network with statisticians around the world and to connect with others working in your area of statistics. Maybe you were asked to join by an adviser, colleague, or employer. Maybe you needed a continuing education course. No matter the reason, the ASA continues to be a vibrant organization due to its many diverse members.

After 170 years of existence, what should the ASA do or offer to serve the world's largest community of statisticians? To help answer this question, ASA President Sastry Pantula formed a workgroup at JSM 2009 to look into membership growth issues. He wanted to know about both members and nonmembers in terms of their level of awareness of and interest in the various benefits the ASA provides. He also wanted to identify any unmet needs. Pantula asked members of the workgroup to develop an action plan for recruiting and retaining members based on a comprehensive survey of current members, lapsed members, and potential members.

The workgroup began by reviewing trends in ASA membership data—including those on lapsed members and student members—current benefits offered, and marketing and membership materials.

From 1998 to 2009, the ASA experienced a decline in full memberships. Fortunately, the latest reports show a slight uptick in this trend. During the same period, student memberships rose from just more than 1,550 to nearly 4,300. It appeared the ASA was reaching students, but not converting them to full members once they made the transition from school to young professionals.

Over the same period, lapsed member reports showed that almost half (49%) of those whose membership had lapsed rejoined when the ASA contacted them. Of those not renewing, the top two explanations were no interest and cost. Other reasons for not renewing included a shift in job function, no longer in statistics, not using the membership, were retired, the ASA did not meet their needs, and they only joined to attend JSM.

Current member benefits can be found at *www.amstat.org/membership*. In addition, the ASA has a series of targeted marketing materials aimed at various groups and a series of membership campaigns such as win a free membership, Member-Get-a-Member, and Chapter-Get-a-Member.

To prepare for surveying members and nonmembers about unmet needs the ASA could meet, workgroup members contacted several academic department chairs to learn more about where students go when they graduate, if the students stay involved in statistics, if the students are members, what types of benefits students might want from a professional organization such as the ASA, and overall impressions of the ASA. Several major themes, along with questions from the Public Awareness Workgroup, were included in a spring 2010 survey given to members, students, and lapsed members. The results helped shape the workgroup's recommendations.

The Membership Growth Workgroup advocates a multi-pronged approach to connecting with

Membership Growth Workgroup Members

Jeri Mulrow, chair and board member

Pam Arroway and Tim Keys, Membership Surveys Committee

Ron Fecso and Ming-Xiu Hu, Membership Retention and Recruitment Committee

Norou Diawara, Committee on Meetings

Amarjot Kaur, Committee on Applied Statisticians

Simon Sheather, Caucus of Academic Representatives

Amy Farris, ex-officio member

Steve Porzio, ex-officio member

specific groups within the statistical community, as one size is not likely to fit all. The first set of recommendations and endorsements are aimed at young statisticians, including both students and those who have recently graduated. The other sets are aimed at lapsed members, industry statisticians, and government statisticians.

Young Statisticians

The ASA should explore establishing a young statisticians' group. Young statisticians have much to bring to the ASA, and the ASA should reach out to them specifically. Areas to explore include their interests and needs, who might be interested in joining, and why this might be appealing.

The ASA, either in conjunction with a young statisticians' group or as a separate initiative, should facilitate mentoring. Current ASA members work in all areas of statistics and in all employment sectors. Statisticians in the early phases of their careers could more easily seek knowledge and advice on a variety of topics through such a program.

The ASA should create a dedicated, one-stop shopping web page featuring current employment opportunities, scholarship awards, travel awards, career development opportunities, mentoring activities, continuing education opportunities (including webinars), and other items of interest to young statisticians. Currently, the information exists on the ASA site, but it is scattered and sometimes difficult to find.

The ASA should support activities that bring greater diversity to the association. This may include hosting diversity workshops aimed at minority students and statisticians, engaging minority-serving institutions in a dialog about what the ASA has or could offer, or organizing specific contests or awards.

ASA sections, chapters, and committees should actively engage young statisticians in their activities. This may include helping to develop a webinar, hosting a social event or seminar series, running data analyses from a survey, or taking photos and writing articles for *Amstat News*.

The ASA should develop an "exit" letter to be distributed by statistics/biostatistics department chairs to graduating students that encourages them to stay in touch with the department and remain (or join as) ASA members. Academic department heads play a key role in involving students in the ASA, and they can play a role with those graduating, too.

The ASA should continue to engage in and expand various social networking activities such as Facebook and Twitter.

Lapsed Members

Gaining a better understanding about why members leave the ASA could provide the ASA with valuable information about new services or benefits that could be offered, ways to improve existing services or benefits, and what may be a disappointment or "turn-off" about the organization.

The ASA should develop more probing questions for the lapsed member telephone follow-up to gather information and develop procedures for systematically reviewing and using this information to develop new or improve existing services or benefits.

Industry Statisticians

There are many opportunities for statisticians to work in industry. ASA sections exist to bring statisticians working in a particular area together. Members of two of the largest sections, Biometrics and Biopharmaceutical, successfully tapped into industry leadership to recruit and retain members by reaching out and offering specific services. A new, but swiftly growing, section is Statistical Programmers and Analysts.

The ASA should explore creating a network of industry leaders and find ways to engage them in efforts to reach statisticians in different industry groups. The goal is to create a dialog, so both the

ASA and statisticians in industry better understand each other's needs and offerings.

The ASA should continue to develop a greater variety of continuing education opportunities, especially those aimed at practical applications. This might include webinars, traveling courses, JSM courses, and section- or chapter-developed courses.

Government Statisticians

Members of the ASA Executive Committee recently began encouraging the heads of federal statistical agencies and the chief statistician at the Office of Management and Budget to support and promote ASA membership. The ASA is encouraged to continue these efforts.

Regarding both industry and government statisticians, the ASA Board noted that their participation in seminars at academic institutions where they promote their involvement in the ASA makes a big impact on students and their future involvement in the association. This should be encouraged more.

Other Opportunities

Members of the workgroup acknowledged that there were many other opportunities for growth that could be covered. Board members noted that the workgroup focused mainly on outreach and services, rather than products, and it would be good to have a better understanding of what motivates and entices people to join.

Anyone interested in working on any of these recommendations should contact Jeri Mulrow at *jmm4784@yahoo.com* or (703) 292-4784. ■

Changes on Track for November Issue

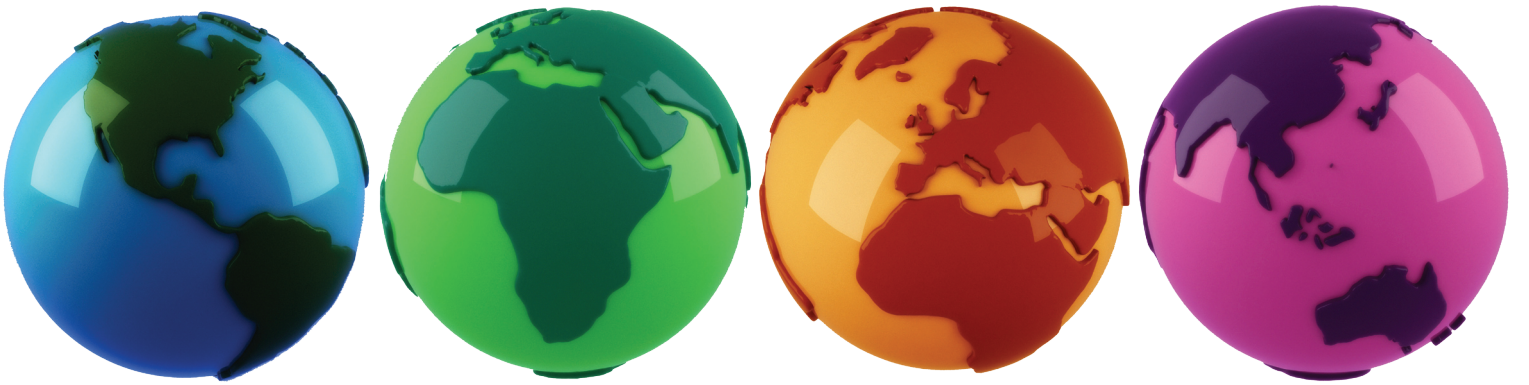
Starting with the November issue, the online version of *Amstat News* will offer more detailed announcements and articles, while the printed version will contain shorter articles to accommodate a smaller, but full-color, magazine.

Why the change? In addition to the ASA's nearly 18,000 members, anyone with an Internet connection can view the ASA's news online. It's fast, convenient, and always up to date. Meanwhile, the cost of printing continues to rise. Taking these steps will allow us to offer a quality publication and get information to as many people as possible.

What to Do

- Continue to send announcements to *Amstat News* Managing Editor Megan Murphy at *megan@amstat.org*.
- Make sure to include a website where readers can get more information, or contact information for someone who will answer questions.
- Attach photos and art in your email (in high-resolution .jpg format).
- Send articles by the first of every month preceding the month you wish to see them published. For example, if you would like your article to appear online in December, send it to *megan@amstat.org* by November 1.

Articles for the print and online versions will continue to be edited. For more information, contact Murphy at *megan@amstat.org*. ■



World Statistics Day

In celebration of World Statistics Day, *Amstat News* asked staff from several federal statistical agencies to provide a list of their agency's accomplishments, both recent and historical. Documented here is a rich history of providing statistical data that informs policymaking in the public and private sectors, resulting in economic development and smarter, more effective government. Also documented is a commitment to innovation and adaptation that has kept federal statistical products current and reliable.

National Center for Health Statistics (NCHS)

www.cdc.gov/nchs

Established in 1960, NCHS has served as the nation's principal health statistics agency, compiling statistical information to guide actions and policies that improve health. NCHS conducts a range of surveys supported by innovative programs in data collection and dissemination. Information is obtained from health care providers, vital records, and the population through interviews and examinations.

NCHS data are used to guide policymakers, track initiatives and trends in health care and health behaviors, and shape research priorities. For example, NCHS data have been used for the following:

- To help set the recommended intake levels for vitamins, minerals, and other nutrients
- To document immunity to diseases
- To contribute to our understanding of exposure to environmental chemicals, including lead and second-hand smoke
- To document changes in health care delivery (e.g., Americans are receiving more medications, getting more care in ambulatory settings and less care as hospital inpatients, and facing more crowding in emergency departments)
- To measure increasing use of health information technology
- To monitor efforts to reduce teen pregnancy
- To highlight high levels of obesity, hypertension, and cholesterol and monitor the impact of interventions
- To document trends in the use of preventive services such as mammograms and immunizations
- To document declines in heart disease and stroke deaths and improvements in life expectancy

NCHS' survey research and data dissemination programs have sought to do the following:

- Take advantage of advances in technology while protecting respondent privacy
- Improve measurement of disability
- Assess whether survey questions are obtaining the desired information
- Improve data standards and classification systems
- Launch an initiative to establish a network of users and suppliers of community health data, indicators, and interventions

- Disseminate data widely—through reports, public use files, interactive warehouses, and research data centers—and provide tutorials for data users

Bureau of Labor Statistics (BLS)

www.bls.gov

Part of the U.S. Department of Labor, BLS is the principal federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy. Its mission is to collect, analyze, and disseminate essential economic information to support public and private decisionmaking. As an independent statistical agency, BLS serves its diverse user communities by providing products and services that are objective, timely, accurate, and relevant.

Throughout the past 25 years, BLS has accomplished much, including the following:

- Launching the BLS website, which has become the primary source of BLS data and analysis
- Introducing Internet data collection and dissemination
- Introducing programs such as the American Time Use Survey and Job Openings and Labor Turnover Survey, as well as new data series such as Business Employment Dynamics
- Overhauling the Current Population Survey and Current Employment Statistics Survey to incorporate new collection methods and revised survey design
- Expanding the National Longitudinal Surveys with the 1997 youth cohort
- Revising compensation data to reflect the changing nature of pension programs and health benefits offered by employers
- Redesigning the Occupational Safety and Health Statistics programs for improved data on worker injuries, illnesses, and fatalities
- Converting the revision process for the Consumer Price Index from a periodic to a continuous updating of housing and geography weights and introducing hedonic techniques to adjust for quality change
- Establishing a Behavioral Science Research Laboratory to improve instrument design and data-dissemination tools
- Expanding the Producer Price Index Program to cover nearly 79% of measured output in service-providing industries
- Improving measurement of productivity data with revisions to labor- and business-sector surveys and the publication of multifactor productivity data
- Introducing probability sampling for several major national surveys, a major step to deal with bias reduction

View the article, "NHANES: 50 Years of Health Measures and Their Contributions to Public Policy" online at *http://magazine.amstat.org/blog/2010/10/01/nhanesoct10.*

Energy Information Administration (EIA)

www.eia.doe.gov

The U.S. Energy Information Administration is the statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and environment.

EIA conducts a comprehensive data-collection program of more than 60 surveys that covers the full spectrum of energy sources, end uses, and energy flows; generates short- and long-term domestic and international energy projections; and performs informative energy analyses. Users have referred to EIA as the "gold standard" for energy information due to the following:

- EIA data are used by Congress, many federal and state agencies, and the private sector for projects such as assessing the adequacy of energy supplies, monitoring dependence on U.S. crude oil supply and imports, and tracking the amount of renewable fuels produced and consumed.
- EIA's weekly natural gas storage data have been designated as one of the nation's principal economic indicators.
- As an independent source of policy analysis, EIA prepares energy projections that are used to analyze different energy futures for the United States and has conducted many special analyses for Congress, the White House, and other federal agencies.

- EIA has become the dependable source of objective energy information for the major news media, including *The New York Times*, *The Washington Post*, *The Wall Street Journal*, *USA Today*, and wire services such as Reuters. This achievement enables the EIA's information to be seen more widely and used by the general public.

- The EIA's award-winning Energy Kids web page (*www.eia.doe.gov/kids*) provides educational information, activities, and lessons for students and teachers. Several products, including Energy Explained (*http://tonto.eia.doe.gov/energyexplained*) and Energy in Brief (*www.eia.doe.gov/energy_in_brief*), are written in plain language for nontechnical audiences.

- Year after year, 90% or more of the customers who respond to the EIA's agency-wide survey say they are satisfied or very satisfied with the quality of EIA's information.

U.S. Environmental Protection Agency (EPA)

www.epa.gov

Reflecting the spirit of World Statistics Day, the U.S. Environmental Protection Agency has placed greater emphasis on displaying timely and accurate data for public use. While the EPA is primarily a regulatory agency, it acquires and uses considerable amounts of data and information to satisfy its decision processes. In recognition of this vast amount of information, EPA formed the Office of Environmental Information in 1999. The office has grown as more data and tools are developed and the public's thirst for environmental information increases.

Since most of EPA's data are considered "administrative data," considerable efforts are made to provide ample metadata to describe the information so users can use the data appropriately.

One specific example of EPA's commitment to ensure that the public has not only access, but also useful tools to employ in accessing data, is the popular Toxic Release Inventory (*www.epa.gov/tri/triprogram/whatis.htm*). EPA releases the annual data along with no fewer than five freely available analysis tools of varying sophistication.

EPA uses data internally in its decisionmaking and enforcement roles. It strives for science-based decisions that require accurate, applicable, representative data—whether through appropriate statistical sampling or required reporting. In its 40-year history, EPA's achievements using data include cleaning up 67% of contaminated Superfund sites, mandating new cars that are 98% cleaner, vastly increasing the number of Americans receiving clean drinking water to 92%, eliminating such toxic substances such as lead in gasoline, and cleaning more than 2,000 previously impaired water bodies.

Economic Research Service (ERS)

www.ers.usda.gov

The Economic Research Service is a premier source of data and research on economic and policy issues involving food, farming, natural resources, and rural development. Core projects gauge the economic health and performance of the U.S. agricultural sector, study farming's relationship to the environment, estimate domestic and global food insecurity, analyze consumer food choices and dietary outcomes, and monitor the indicators of rural well-being. ERS is one of 14 principal U.S. statistical agencies.

ERS research findings, market information, and statistical indicators inform policymakers, industry groups, researchers, and the public. Since its establishment in 1961, ERS has produced data and analysis that have had an impact on the following issues:

Childhood Obesity. At the launch of First Lady Michelle Obama's "Let's Move" initiative to reduce childhood obesity, ERS produced the Food Environment Atlas (*www.ers.usda.gov/FoodAtlas*), which is used to assess the socioeconomic factors potentially related to obesity.

Food Safety. Research on the social cost of food-borne illness was instrumental in implementing new approaches to strengthen the food inspection system.

Climate Change. Climate change will affect crop and livestock yields worldwide. ERS examines opportunities and impediments to both farmer and government participation in markets for ecosystem services, including carbon sequestration.

Lagging Rural Economies. The American Recovery and Reinvestment Act provided funds for speeding the introduction of broadband Internet service in lagging rural areas. ERS research was used to assess broadband service in and to target funding to those areas.

Global Food Insecurity. ERS estimates that 882 million people in 70 developing countries are food insecure. ERS' research helps USAID and the U.S. Department of State target those countries most in need of food aid.

Food Deserts. Many urban neighborhoods lack ready access to healthy, nutritious foods. ERS' research identifies the prevalence, causes, and consequences (economic and health) of food deserts.

National Agricultural Statistics Service (NASS)

www.nass.usda.gov

For more than 150 years, NASS has been committed to serving the public with timely, accurate, and useful statistics regarding the nation's farm sector. In the past, programs conducted as follow-on programs to the Census of Agriculture focused on traditional agriculture-related topics such as land arrangements and aquaculture. Recently, NASS advanced the term "timely" in its mission statement by adding key programs that address the unique needs of today's agriculture data user community.

This transition to fulfilling more timely and topical agriculture data is exemplified by the following:

- 2009 On-Farm Renewable Energy Production Survey, which focuses on wind, solar, and methane digesters
- Benchmark data on organic producers in the 2008 Organic Production Survey
- Increased scope of the 2008 Farm and Ranch Irrigation Survey to provide a special tabulation for irrigation practices on horticultural operations
- Reissuing, after 10 years, the 2009 Census of Horticultural Specialties, with the inclusion of the long-standing data series from NASS's floriculture survey

The data from these and other new surveys and censuses will aid decisionmakers and policymakers across the country and within the U.S. Department of Agriculture.

NASS proudly credits the nation's farmers and ranchers for their outstanding 90% plus response rate for the organic, horticulture, and energy projects. The high response rates provided superior coverage of relatively small populations and allowed NASS to provide quality and representative data.

NASS maintains the trust of data providers with a rigid confidentiality policy. The products released in 2010 are a testimony to NASS's ability to provide timely, accurate, and useful statistics in service to U.S. agriculture. All data reports and products are available online.

Download the World Statistics Day poster from the ASA website at *www.amstat.org* or visit the World Statistics Day website at *http://unstats.un.org/unsd/wsd/Events.aspx* and click on the United States of America to view the activities and events planned to celebrate WSD 2010.

Bureau of Justice Statistics (BJS)

http://bjs.ojp.usdoj.gov

Celebrating its 30th anniversary, the Bureau of Justice Statistics has emerged as the principal criminal justice statistical agency in the nation, providing accurate, timely, and objective information to federal, state, and local policymakers. As the statistical agency of the U.S. Department of Justice, BJS is responsible for the collection, analysis, publication, and dissemination of statistical information on crime, criminal offenders, victims of crime, and the operations of justice systems at all levels of government.

BJS's National Crime Victimization Survey is the only source of annual nationally representative data on a number of policy-relevant subjects connected to criminal victimization, including intimate partner violence, drugs and alcohol and crime, injury from victimization, the cost of crime, and reporting to police.

BJS's law-enforcement program measures the operation and characteristics of more than 19,000 independent federal, state, and local law-enforcement agencies in the United States.

BJS's courts data describe court structure and case processing of felony defendants from arrest through sentencing and have been used to explore such issues as state court organization and sentencing.

BJS's corrections reports have identified critical issues for corrections policy, including the prevalence of incarceration, the sources of growth of U.S. correctional populations, and the scope of serious mental illness among correctional populations.

Since 1995, BJS has distributed millions of dollars under the National Criminal History Improvement Program to support improvements in state and national records systems for criminal background check purposes and, more recently, to support research on offender recidivism and prisoner re-entry.

BJS also provides financial support for the establishment and operation of state statistical analysis centers to collect, analyze, and report statistics on crime and justice to federal, state, and local levels of government and to share state-level justice information nationally.

Bureau of Economic Analysis (BEA)

www.bea.gov

Since their creation, the National Income and Product Accounts (NIPAs)—produced by the Bureau of Economic Analysis—have played an integral role in helping discern the state of the U.S. economy and in guiding monetary and fiscal policy decisions that affect all Americans.

The NIPAs, which include the well-known gross domestic product (GDP), began 75 years ago. The first set of national income statistics helped the government maneuver the nation through the Great Depression. As the country entered World War II, the first series of gross national product statistics was issued to assess President Franklin Roosevelt's war production program. To transition back to a peacetime economy after the war, new accounts were created that tracked the U.S. balance of payments and measured individual industries, sectors, states, and regions.

Throughout the years, the NIPAs changed to keep pace with a changing economy. They were extended to measure capital stock, investment, and other sources of growth. They were revised to provide better ways of measuring international trade; treat software spending as a business investment, rather than an expense; and track the rising quality of computers and IT software.

The BEA continues to develop measurements to better explain what is happening in the economy. For example, current work on health accounts will more accurately measure U.S. spending on health care. The BEA also has proposed new measures of the distribution of growth in income across households, other sectors, and regions and the sustainability of trends in saving, investment, asset prices, and other key variables important to understanding business cycles and the sources of economic growth.

GDP has been called one of the great inventions of the 20th century. Its continuing development will bring into even sharper focus the big picture of the economy, thus improving the quality of life for all Americans.

National Center for Education Statistics (NCES)

http://nces.ed.gov

Reliable data are critical to informed decisionmaking for improving education in America. Indeed, the initial mission of the first Department of Education, created in 1867, was to "collect … such statistics and facts as shall show the condition and progress of education in the several states and territories." While today's education and the task of assessing its scope, quality, and impact are immensely more complex, the National Center for Education Statistics within the Institute of Education Sciences continues to carry out this core function for the department and nation.

Under the Education Sciences Reform Act of 2002, NCES has as its responsibility to "collect, report, analyze, and disseminate statistical data related to education in the United States and in other nations. …" To meet this obligation, the center continually works with data users and relies on their feedback to meet their needs for timely, comprehensive, and useful information that maintains high statistical standards. NCES strives to provide a balanced portfolio of products and services that include data about emerging issues and basic

statistical information about trends in educational performance, participation, institutions, and resources.

NCES conducts institutional, household, and longitudinal surveys; carries out national and international student and adult assessments, including the National Assessment of Educational Progress; and assists states and postsecondary institutions in building a solid data infrastructure and state longitudinal data systems. The education policy issues addressed by its data collections are equally broad, including enrollment trends, access to postsecondary education, the academic achievement of students, and comparison of U.S. education with that of other countries.

NCES also provides ready access to education data by offering online data analysis tools and public-use data files and granting restricted-use data licenses to qualified researchers. In addition, NCES supports statistical standards development and methodological research in the administration of surveys and assessments.

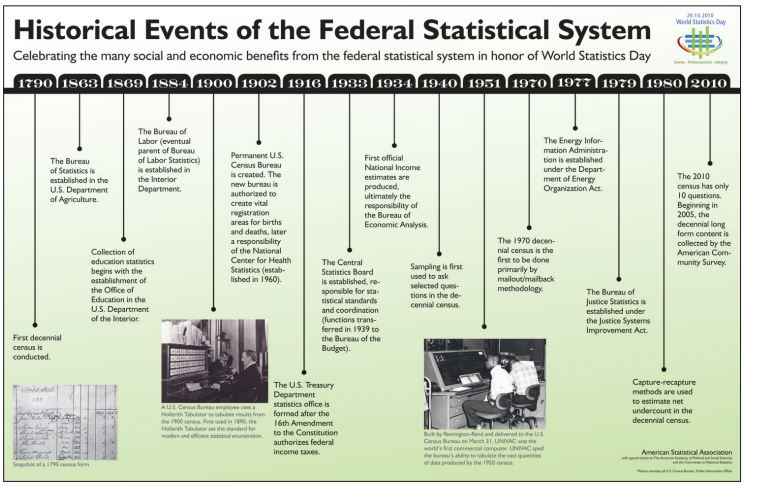
Statistics of Income Division (SOI)
www.irs.gov/taxstats

The Statistics of Income Division of the Internal Revenue Service was founded in 1916 to publish information about the operation of the internal revenue laws. It issued its first report in 1918, and throughout its almost 95 years of continuous service, the data it collects from the returns of individuals, businesses, tax-exempt organizations, and many other specialty areas of taxation have had a significant impact on the economic and tax policy of the United States.

Microdata produced by the division also are used to support macroeconomic estimates of the U.S. economy and major economic surveys. The division makes data available to the public through regular printed publications; special tabulations; and the TaxStats pages on irs.gov, which currently host more than 8,500 articles and tables. Also available are several microdata public-use files, including data on tax-exempt organizations, which are made available to the public by law, and summary data from individual income tax returns that have been carefully masked to prevent disclosure of individual taxpayer information.

Throughout its history, the division has been a leader in advancing statistical methodology and data-collection technology. In the 1920s, SOI was one of the first federal statistical offices to implement stratified random sampling. As an early adopter of modern computing technology, SOI implemented machine tabulation of data in 1928 and purchased its first UNIVAC computer in 1954.

SOI continues to modernize its tax data-collection systems, expand program content, and implement new studies. Currently, the division is playing an important role by collecting and disseminating the statistics needed to monitor and evaluate the tax-related provisions of the American Recovery and Reinvestment Act of 2009, the Hiring Incentives to Restore Employment Act of 2010, and the Patient Protection and Affordable Care Act of 2010.



Download this World Statistics Day poster at *www.amstat.org* to learn about the U.S. federal statistical system.

National Science Foundation (NSF)
www.nsf.gov

The National Science Foundation is an independent agency of the U.S. federal government created by Congress "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense…" The Division of Science Resources Statistics (SRS), a federal statistical agency within NSF, plays a vital role in this effort by continuously collecting and reporting key statistics describing the state of science and engineering in the United States. Recent accomplishments and key activities include the following:

- Science and Engineering Indicators 2010 (*www.nsf.gov/statistics/indicators*). This comprehensive document reports on the vitality of America's

science and engineering enterprise to the president, Congress, and the nation. SRS analysts bring together data collected by the division and other national and international sources on topics such as K–12 through doctoral education in science, math, and engineering; the science and engineering work force; domestic and international research and development funding, performance, and outputs; the production and trade of knowledge-intensive services and high-technology goods; public knowledge of and attitudes toward science and engineering; and a range of indicators of state-level science and engineering activities.

- Business R&D and Innovation Survey (*www.nsf.gov/statistics/srvyindustry/about/brdis*). In 2010, data from the new Business R&D and Innovation Survey was released, providing an updated view of U.S. research and development activity and new information and insight into worldwide sales and research and development expenditures, domestic and worldwide employment, and innovation activities.

- SRS is developing a secure, collaborative data access facility so all researchers accessing its science and engineering data can meet in a virtual environment to share their research and collaborate with SRS on data enhancements. SRS also has fielded a comprehensive multiyear project to gather in-depth information about postdoctoral researchers and early career researchers in the United States across a variety of employment sectors.

U.S. Census Bureau

www.census.gov

The history of the U.S. Census Bureau is a history of ever-increasing demands for information and meeting those demands with continual technical innovation and statistical breakthroughs, ranging from punch cards to sampling to computerized data processing.

In 1890, it was keypunch cards, which ushered in an era of business machines, tabulators, and cash registers for the nation. In 1950, UNIVAC I, the first civilian-use mainframe electronic computer, made its debut—and out flowed the computer age. In 2000, for the first time, the data-capture process used optical scanners that could read hand printing to process the millions of questionnaires returned by mail or filled out by enumerators.

The development by the Census Bureau of geographic base files in the 1970s and the TIGER system in the 1980s laid the groundwork for today's geographic information system industry. In 2010, the Census Bureau realigned street center lines and used hand-held computers to capture GPS coordinates for each address, making the census's geographic tabulations more accurate.

As the science of statistics advanced, the Census Bureau changed and updated its methodology, including the introduction in 1940 of statistical sampling in a population census. The 2010 census saw the most dramatic shift in the Census Bureau's data-collection process in decades. The successful launch of the American Community Survey, which is administered continuously throughout the decade, eliminated the long-form sample questionnaire from the census, giving the nation more frequent and timely data.

Since the 2000 census, the U.S. Census Bureau has used the Internet to give millions more data users the tools they need to construct a digital picture of America, down to any one of 7 million census blocks. In 2010, the Census Bureau engaged the public online through social media to promote participation and, for the first time, gave local residents and leaders the ability to monitor daily how their communities were responding by mail. ■

Researcher Wins ASA/NISS Award

Paulo Canas Rodrigues, Chair of the Founding y-BIS and ISBIS Vice President for y-BIS Members

Veronika Czellar of HEC Paris was honored recently with the Best y-BIS Paper Award, valued at $1,000 and sponsored by the ASA and National Institute of Statistical Sciences.

y-BIS is the young people's group in the International Society for Business and Industrial Statistics. Its purpose is to bring together young researchers and professionals working on business, financial, and industrial statistics to help support their career development and enjoyment.

For more information, visit *http://sites.google.com/site/ybisisbis*.

Women in Science Still Overlooked

Mari Palta, Committee on Women in Statistics Chair

This report summarizes a variety of ways women are involved in activities related to the ASA. Some of the statistics presented point to areas in which there should be concerted efforts to involve more women. Others could inform plans to hone ASA activities so they appeal to the current mix of members.

Overall Membership

The ASA database contains records for 14,650 members. Of these, 160 declined to report their gender. Among the 14,486 remaining, 4,611 (31.5%) are women. This compares to just below 30% in 2005 and 33.5% in 2008. Hence, the percentage does not seem to have increased much in the last five years. According to the 2006 Survey of Earned Doctorates (see *www.norc.org/projects/survey+of+earned+doctorates.htm*), the percentage of women among those earning PhDs in statistics/biostatistics from 1997–2006 was 41%.

The percentage of members who are women differs considerably by age and highest degree status. Women members tend to be younger and are less likely to hold doctoral degrees. Overall, among 14,281 ASA members who reported degree status, 57.2% hold a doctoral degree and 32.5% hold a master's degree as their highest degree. Among women, the corresponding percentages are 45.6% and 42.0%. Conversely, 41% of all members with a master's degree are women and 25% of all members with a PhD degree are women.

Among men, 66% of ASA members are age 45 years or above, while only 41% of women are. Overall, these percentages indicate slight aging of the membership since 2008, as then 54% of all members were 45 or above and almost 59% are now. Table 1 shows the percentage of women in different age and degree categories.

The percentage of women among ASA members age <45 with doctoral degrees at (37%) is slightly lower than the percentage (41%) of women among PhD recipients from 1997–2006.

The percentages of women vary slightly by place of employment. Of members employed in academia, 27% are women; in business and industry, 29% are women; and in federal government, 33% are women. The lowest percentage of women (24%) is found among those who are self-employed, and the highest (41%) is among retired members. While there are no data on percent of women in leadership positions in government and industry, 15 of 94 chairs of PhD-granting statistics and biostatistics departments are women, according to data collected by ASA Research and Graduate Education Manager Keith Crank. At 16%, this is slightly below the 18% of women among ASA members age 45 and older with doctoral degrees.

Table 1—Percentage of ASA Members Who Are Women Within Degree and Age Categories

	Age < 45	Age ≥ 45
Associate's or Bachelor's	45%	25%
Master's	46%	30%
Doctoral	37%	18%
Other	34%	26%

Some indication of women's interest areas can be gleaned from membership in ASA sections. Table 2 shows the percentages of women in each section together with the total number of members belonging to the section. There is a tendency for the percentage of women to be higher in sections with more members.

Participation in ASA Activities

Women are well represented in the ASA organizational leadership. Presently, one-third of the ASA executive committee is made up of women, and 45% of the ASA Board of Directors is made up of women. Based on the overall ASA membership composition, one may expect about 30% of women to be in leadership positions open to all ages and backgrounds, such as being on ASA committees.

Another indicator of ASA activity is participation in the Joint Statistical Meetings (JSM). In 2010, 38% of the members of the JSM Program Committee were women. Among registered participants, 56% were men, 32% were women, and 12% did not report gender (data provided by

Table 2—Total Number of Members in ASA Sections and Percent Who Are Women in Each Section

	% who are women	Total number
Statistics in Epidemiology	42%	1,598
Teaching of Statistics in the Health Sciences	41%	774
Health Policy	40%	742
Statistical Consulting	38%	1,952
Social Statistics	38%	637
Biopharmaceutical	37%	2,512
Government Statistics	37%	943
Social Statistics	37%	1,058
Biometrics	36%	2,805
Statistical Education	36%	1,324
Survey Research Methods	36%	1,409
Statistics and the Environment	35%	842
Statistical Programmers and Analysts	34%	520
Nonparametric	30%	662
Risk Analysis	28%	949
Bayesian Statistical Science	28%	1,598
Statistical Learning and Data Mining	27%	728
Defense and National Security	27%	415
Statistics in Marketing	27%	614
Statistical Graphics	26%	1,638
Statistical Computing	26%	2,341
Quality and Productivity	25%	799
Business and Economics	25%	1,216
Physical and Engineering Sciences	21%	849
Statistics in Sports	18%	647

Steve Porzio, the ASA's associate executive director and director of operations). If missingness is completely at random, this would indicate that 36% of JSM participants in 2010 were women.

Professional regard and involvement also is expressed by giving an invited talk or chairing an invited session. Counting women chairs and speakers in all invited sessions on August 2 yields about 30% women, indicating participation that corresponds well with overall membership percent.

On the other hand, not a single one of six keynote speakers listed in the 2010 JSM program is a woman. Also, women are noticeably absent as leaders of Continuing Education courses. Of 24 such courses listed in the program, only two had women as lead instructors. It appears this is a missed opportunity for women to establish themselves as experts in a specific statistical area.

Women are even less well represented in the leadership of ASA publications. The Committee on Publications includes four women, amounting to about 20%. The ASA website lists 12 journals as being published by the ASA, and these journals have 17 editors-in-chief. Only two (12%) are women. However, a woman was just announced as the new editor for the *Journal of Agricultural, Biological, and Environmental Statistics*, so change may be imminent.

The ASA's flagship journal, *Journal of the American Statistical Association* (*JASA*), has three chief editorial positions and corresponding editorial boards: Theory and Methods, Applications and Case Studies, and Reviews. Presently, these boards are comprised of 18%, 21%, and 33% women, respectively. In December 2007, these percentages were 10%, 34%, and 17%, respectively. Both older and younger statisticians have the opportunity to participate on journal editorial boards, so the percentage of women in editorial roles could be expected to be close to the 25% of women among members with doctoral degrees.

There may be considerable variation in editorial boards from year to year, depending on the editors-in-chief. The current larger percentage of women among associate editors for Reviews reflects appointments by the female editor for this section of *JASA*. It is striking that since 1990, there have been only three women in any of the *JASA* editorial positions. From 1995–1997, both the editor for Applications and Case Studies (named coordinating editor at the time) and the editor for Reviews were women. At that time, 6.5% of the editorial board for Theory and Methods, 27% of the board for Applications, and 31% of the board for Reviews were women. Since then, the only woman editor has been the present editor for Reviews, although there has long existed a pool of women associate editors potentially qualified for the editor positions.

Fellow Selection

There has been much recent interest in how many women receive recognition through society awards. The Committee on Women in Statistics (COWIS) has long tracked the percentage of nominations and selections of women as ASA Fellows, and the Committee on Fellows has recently publicized

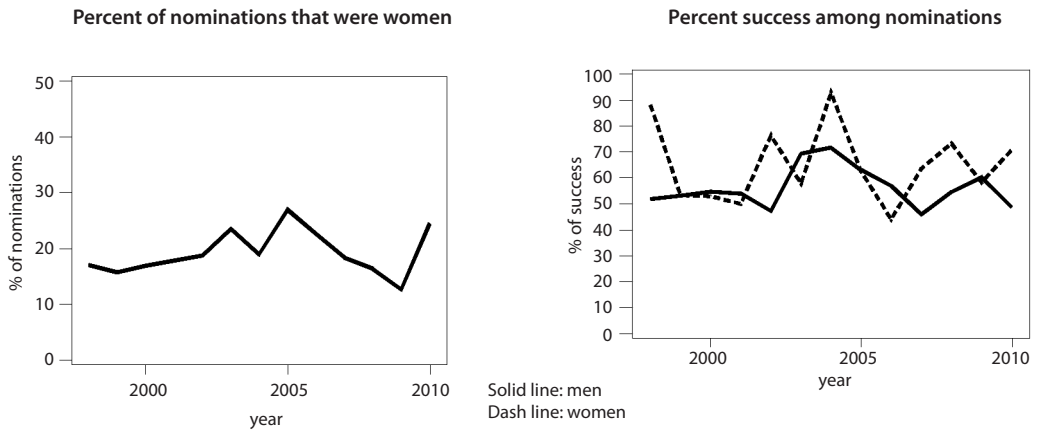


Figure 1. Percent of Fellow nominations for women and percent of success for women among those nominations since 1998

these percentages. The graphs in Figure 1 present results since 1998. Importantly, the years with reasonable percentages of women among nominations were those in which the ASA leadership or COWIS members exerted special effort to nominate women. In the years between 2005 and 2009, the percentage slipped as efforts waned.

The second panel demonstrates that women, once nominated, had a similar or slightly higher rate of success. The 18% of women among members age 45 and older with a PhD may arguably be considered a benchmark for percent of women being elected Fellow.

The overall percentage of ASA members who are Fellows is 4.5% for women and 9.9% for men. Although 64 members with associate's, bachelor's, master's, or other degrees are Fellows, the majority (1,096) of Fellows hold doctoral degrees. Among doctoral degree holders, 15% of men and 9% of women are Fellows. Among doctoral degree holders less than 45 years old, 1.8% are Fellows among both men and women. At age 45 and above, 21% of men and 16% of women are Fellows. Table 3 shows the percentage of men and women who are Fellows among members with doctoral degrees by five-year age groups above 45.

We see that percentages of Fellows are similar for women and men ages 50–65. It must be kept in mind, however, that data from older ages reflect not only the Fellow selection process, but also survival and the decision to remain an ASA member. Generally, although the rate of nomination of women for Fellow has approached the expected percentage in some years, the percentage of Fellows among senior women is still too low.

Table 3—Percentages of Women and Men Who Are Fellows Among Those with Doctoral Degree in Age Groups 45 Years and Older

Age group	% of women	% of men	Number of women in age group	Number of men in age group
45–49	7.9%	10.1%	203	602
50–54	13.4%	14.1%	186	603
55–59	16.1%	16.3%	180	781
60–64	21.0%	18.8%	148	739
65–69	23.8%	26.7%	80	614
70–74	24.3%	33.1%	37	335
75+	43.3%	42.8%	30	306

Other ASA Awards

The ASA grants several other prestigious awards. Gender data on awardees from a number of societies, including the ASA, were collected by the Association for Women in Science (AWIS) in collaboration with the ASA for the NSF-funded Advancing Ways of Awarding Recognition in Disciplinary Societies (AWARDS) project (see Page 25). ASA awards and percentages of awardees who were women are reproduced in Table 4 (slightly corrected and updated from the AWIS report).

The percentage of women among recipients of ASA awards is low and has not increased in the last decade. Some awards have never been granted to a woman. The numbers also reflect a general finding of the AWIS study that women are more

Table 4—ASA Awards with Number and Percent Recipients Who Were Women

Award	1991–2000			2001–2010		
	All	Women	%W	All	Women	%W
Deming Lecturer	5	0	0%	10	0	0%
Founders	38	10	26%	35	13	37%
Gottfried E. Noether (junior)				10	3	30%
Gottfried E. Noether (senior)	1	0	0%	10	1	10%
Outstanding Statistical Application	28	6	21%	29	4	14%
Samuel S. Wilks Memorial	10	1	10%	10	0	0%
Statistics in Chemistry	26	1	4%	21	3	14%
W. J. Dixon for Excellence in Statistical Consulting				2	0	0%
W. J. Youden in Interlaboratory Testing	17	5	29%	41	7	17%
Waller Education Award				2	1	50%

Note: Data obtained by AWIS AWARDS project.

likely to receive awards recognizing service than scientific achievement.

It was noted in the AWIS study that ASA award committees are presently composed of 35% women. Extensive research on implicit stereotyping cited in the AWIS AWARDS workshop indicates that including women on award selection committees is necessary, though not sufficient, to ensure unbiased consideration that is free of subconscious gender expectations. Perhaps even more importantly, comparing the list of awards to the list of sections indicates that predominant interests of both men and women in the ASA, such as biometrics and social statistics, are not well captured by awards.

ASA sections also give a number of awards. At JSM 2010, 43 nonstudent awards were awarded by sections. Additional awards were based on recognition of continuing education course offerings (three awards) and excellence in statistical reporting (one award). Among these 47 nonstudent awards, 15 (32%) were given to women, representing the proportion of ASA members who are women well.

There were also 10 awards for service to chapters, of which four (40%) were given to women.

Finally, the ASA participates in prestigious awards given by the Committee of Presidents of Statistical Societies (COPSS). Recipients are chosen by six-member committees with representatives from COPSS, the ASA, the Institute for Mathematical Statistics, the Statistical Society of Canada, and the International Biometric Society - ENAR and WNAR.

The Presidents' Award is granted to a young member of one of the societies in recognition of outstanding contributions to the profession and statistics. It has been given to one woman and nine men since 2001. In 2010, there were no women on the selection committee for the award.

The Fisher Lectureship, which recognizes the importance of statistical methods to scientific investigations, has not been given to a woman since 2001. The 2010 selection committee included two women.

The Elizabeth Cox Award is given to individuals who have made major contributions to further the careers of women in academia. In contrast to the other awards, and not unexpectedly, all but one of the Elizabeth Scott Award recipients since 1992 have been women. The committee for this award had five women in 2010, with the only male member being the committee chair.

COPSS awards not given out in 2010, as they are awarded in odd years, are the F. N. David Award, which by definition goes to a woman, and the Snedecor Award. The latter recognizes a noteworthy publication in biometry. Since 1990, there have been 16 recipients of the Snedecor Award, two of whom were women.

Summary

There is a large percentage of women in the ASA, especially among younger members. Women members more often belong to sections interested in biological and social science applications. Women are well represented among the ASA's organizational leadership, but not on editorial boards or as recipients of prestigious awards. Nominations of women for Fellow, and likely for other awards, depends heavily on special effort by ASA members and leadership. There appears to be a large untapped pool of women for editorial service on ASA journals. ■

Awards for Women Fall Short

Mary W. Gray and Bonnie Ghosh-Dastidar

The Association for Women in Science (AWIS) undertook the AWARDS project in cooperation with the ASA, American Mathematical Society, Society for Industrial and Applied Mathematics, Mathematical Association of America, American Chemical Society, American Geophysical Union, and Society for Neuroscience (SfN).

In late June, AWARDS personnel and representatives of the societies met in Washington, DC, for a workshop designed to raise awareness of and create solutions for the under-representation of women among award recipients presented by the organizations involved. Specifically, the goals of the workshop were "to develop processes customized for each organization that foster the diversity of scientific award recipients" and to use the lessons learned to formulate best practices for other disciplinary societies.

Measuring against percentage of PhDs going to women from 1971–2000, the percentage of scholarly awards going to women fell short in all of the societies (except the relatively new SfN). In awards for service, the situation was reversed or close to reversed in all the societies except the ASA, where women are still substantially under-represented.

Even conceding that there are problems with the data, the overall trend was clear: Either women are not worthy of recognition or they are being overlooked. A 2007 National Academy of Sciences report claimed, "It is not lack of talent, but unintentional biases and outmoded institutional structures that are hindering the access and advancement of women."

How do we address the situation? Enlarging the pool of nominees by making certain the accomplishments of women are not ignored is a basic practice that the societies were encouraged to undertake. On the other hand, the data show that even when the percentage of women nominees was substantial, the success rate for women was not very high, particularly when the award in question was given to a single recipient.

Part of the explanation offered for the lack of diversity was that there was no general coordination of multiple awards committees. The ASA, however, recently formed the Council on Awards to exercise some oversight of the process.

Examples from the literature were cited, showing that the same work was evaluated differently if the author's name was female, that bias is apparent in the language used in letters of recommendation for women, and that there are pervasive differences in compensation and other institutional resources for women. Several effective demonstrations of implicit association bias also were provided. A number of actions were proposed as an antidote to the effects of implicit bias, including stressing the benefits of diversity, citing research on the advantages of heterogeneous brainstorming groups and diverging viewpoints, and mentioning that we cannot afford to lose a significant proportion of those capable of excellence in science.

For more information about AWARDS, visit *www.amstat.org/committees/cowis*. ■

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Scholars Meet Mentors at JSM

Cavell Brownie Scholar Sydeaka Watson (center) receives her Stat Bowl second-place award from Stephanie Cano and Mike Anderson.

The Cavell Brownie Scholars JSM Mentoring Program had its inaugural run at the Joint Statistical Meetings in Vancouver, BC, from August 1–4. This program pairs diverse graduate students and postdocs with faculty who provide pointers on how to prepare for a faculty career. It also builds community among scholars from under-represented groups.

Six graduate students and postdoctoral scholars were named 2010 Cavell Brownie Scholars: Deidra Coleman of North Carolina State University, Sulgi Kim of the University of Washington, Eddy Kwessi of Auburn University, Adriana Ordonez of the University of Texas Health Sciences Center, Che Smith of The University of North Carolina at Chapel Hill, and Sydeaka Watson of Baylor University.

The scholars met with faculty mentors from liberal arts colleges, research-extensive universities, and university health science centers. Faculty mentors included Lloyd Edwards of The University of North Carolina at Chapel Hill, Sarah Baraniuk of The University of Texas Health Sciences Center, Monica Jackson of American University, Nedret Billor of Auburn University, and Kim Weems of North Carolina State University. They shared personal experiences, advice, and information and participated in a roundtable discussion on best practices for mentoring minority graduate students.

Additionally, Sonia Ruiz of KEI, Inc. led a session about the imposter syndrome and the effects of stereotype threat, and Watson, Edwards, Smith, Baraniuk, Eddy Kwessi, and Jacqueline Hughes-Oliver presented information about the history of women and minorities in statistics, the status of minorities today, and contributions statisticians of color have made to statistics.

The scholars also were well-represented in technical sessions at JSM. Watson placed second in the ASA Stat Bowl; Smith and Watson presented posters on statistical computing and Bayesian statistics, respectively; and Coleman gave an oral presentation on "omics."

The program is named after Cavell Brownie, professor emeritus of the North Carolina State University Department of Statistics. Brownie specialized in biometric methods, wildlife sampling, and statistical consulting from 1982 until she retired in 2008. She was born in Jamaica and served as an important mentor to generations of graduate students and junior faculty. ■

CHANCE Editor Chosen

The ASA recently named Sam Behseta the next executive editor of *CHANCE* magazine.

Behseta is an associate professor in the department of mathematics at California State University in Fullerton and teaches a variety of undergraduate- and graduate-level statistics courses. He will serve as editor from 2011–2013.

Excited when he heard the news, Behseta said he was "honored to be the next executive editor of *CHANCE*." He also recalled his first encounter with the magazine when he was an undergraduate, mentioning an article written by George Barnard about R. A. Fisher. "The impression that this short, yet beautifully written piece left on me was strong," said Behseta. "I still recommend that article to my students whenever I teach an undergraduate-level mathematical statistics course."

"Behseta is a good choice," said the ASA's executive director, Ron Wasserstein. "He has editorial experience and a clear vision to lead *CHANCE*."

That vision includes amplifying the magazine's "role as a pedagogically savvy and technologically friendly forum for the promotion of statistical ideas in the modern era," said Behseta, who thinks the magazine could benefit from adding a readers' forum, teachers' corner, computing corner, and a spot for statistically oriented news and news analysis. Also, Behseta says cleverly exposing *CHANCE* to online forums such as Facebook will make it possible to build a stronger connection with a younger generation of readers.

Since its creation in 1988, *CHANCE* has covered such topics as the 1990 census adjustment and redesigned population survey, sports, the environment, DNA evidence in the courts, medical issues—even how to win on "Jeopardy." The magazine is for anyone who has an interest in the analysis of data, informally highlighting sound statistical practice. It is copublished quarterly by the American Statistical Association and Springer Science + Business Media, LLC. ■

Journal of Quantitative Analysis in Sports Call for Editor Nominations

The American Statistical Association invites nominations and applications for the position of editor of the *Journal of Quantitative Analysis in Sports* (*JQAS*).

The new editor will serve from 2012 through 2014, with the transition beginning in 2011.

Send nominations—including the nominee's name, email address, and a brief description of his or her qualifications—to *journals@amstat.org*. The search committee will then contact nominees to see if they are interested in applying.

Applications should include a CV, names of three references, and a letter of interest that includes a brief statement of the candidate's vision for the publication, directions the candidate would pursue, and contributions she or he would make if selected.

The deadline for nominations is December 1. Interested nominees must then send their applications by January 15, 2011. Both nominations and applications should be sent to *journals@amstat.org*.

Articles in *JQAS* come from a variety of sports and perspectives and deal with such subjects as tournament structure, frequency and occurrence of records, and the optimal focus of training for decathlons. Additionally, the journal serves as an outlet for professionals in the sports world to raise issues and ask questions that relate to quantitative sports analysis. Articles come from a diverse set of disciplines, including statistics, operations research, economics, psychology, sports management, and business.

For more information about *JQAS*, visit *www.bepress.com/jqas/about.html* or *www.bepress.com/jqas/aimsandscope.html*. ■

CHANCE Highlights

Fall Issue Focuses on Elections

Mike Larsen, *CHANCE* Executive Editor

Volume 23, Issue 3 of *CHANCE* focuses on elections. There are articles about elections graphics, statistical election auditing, and epidemiology associated with election days. **Lawrence Mosley**, **Dianne Cook**, **Heike Hofmann**, **Chris Kielion**, and **Barret Schloerke** present graphical displays they used to study and predict the 2008 presidential election. An abstract appears in the magazine, while the full article with color graphics appears online at *www.amstat.org/publications/chance/supplemental.cfm*. **David Rothschild** graphically contrasts the stability and accuracy of debiased daily polls, debiased aggregated polls, and prediction market price estimates over time approaching an election. **Andy Gelman** and **Yu-Sung Su** use graphical methods to examine vote by education, age, and ethnicity.

In April 2010, the ASA Board of Directors endorsed risk-limiting audits as a preferred methodology for ensuring the accuracy of elections (see *http://magazine.amstat.org/blog/2010/06/01/auditsjun10* and *www.amstat.org/about/pressreleases/ASARecommendsRisk-LimitingAudits.pdf*). In his article, **Phil Stark** discusses risk-limiting vote-tabulation audits and the importance of cluster size. His illustrative heuristics are fun to consider and could be useful for teaching purposes. Stark introduced risk-limiting audits in 2007 and conducted six field-pilots of risk-limiting audits in 2008 and 2009.

Jon Hobbs, **Luke Fostvedt**, **Adam Pintar**, **David Rockoff**, **Eunice Kim**, and **Randy Griffiths** compare election auditing options in Iowa. They show that investigation of the statistical properties of audit strategies could help improve election laws in Iowa and other states.

Linda Young and **Dan McCrea** comment on the election audit law in Florida. Although Florida having such a law is positive, the law's statistical flaws mean it likely would not be able to prevent election controversies like those that occurred in the past.

Don Redelmeier and **Rob Tibshirani** analyze an increase in road crash data that occurs on Election Day. They use the data to compare absolute risk, relative risk, odds-ratios, and other risk metrics. Is this a reason to vote by mail?

In an article about a topic that will have an impact on elections (and much more) in the future, **Mary Mulry** and **Pat Cantwell** give an overview of the 2010 Census Coverage Measurement Program and its evaluations. The U.S. Census is an enormous (and enormously expensive) enterprise; measuring its accuracy is a tremendous and important statistical challenge.

Three articles concern games and sports. **David McCarthy**, **David Groggel**, and **John Bailer** construct a case-control data set to study the probability of throwing a no-hitter in baseball. Matching is common in analysis of observational studies in health, but rather novel in sports.

Vincent Berthet asks whether the poker player with the best hand tends to win, in which case luck dominates, or skilled players do better than their cards would predict. He derives his unique data set from televised poker games.

Martin Jones and **Ryan Parker** compare three star basketball players from the NBA on several dimensions. Along the way, they illustrate the challenge of carefully interpreting regression coefficients.

In the Here's to Your Health column, Mark Glickman brings us an article by **Arlene Swern** about hormone replacement therapy and coronary heart disease in post-menopausal women. The article explains what is meant by "meta-analysis" and how to think about the statistical quality of the conclusions from such a study.

In the Visual Revelations column, **Jim Ramsay** and **Howard Wainer** give us inside-out plots. This method is useful for multivariate tabular data. The authors apply their method to data on baseball players.

Jonathan Berkowitz completes the issue with his cryptic crossword puzzle, Goodness of Wit Test #9. As with other articles in this issue, this puzzle asks you to look at data in a fresh way.

In other news, *CHANCE* magazine cosponsored 10 sessions at the 2010 Joint Statistical Meetings. View the session summaries by going to *www.amstat.org/meetings/jsm/2010/onlineprogram*, selecting *CHANCE* as sponsor, and clicking View. The chosen sessions reflect diverse and important interests and applications in the real world. By endorsing these sessions, *CHANCE* supports those involved in the sessions, raises awareness of the magazine, and encourages submissions. ■

The American Statistician Call for Editor Nominations

The American Statistical Association invites nominations and applications for the position of editor of *The American Statistician*.

The new editor will serve from 2012 through 2014, with the transition beginning in 2011.

Send nominations—including the nominee's name, email address, and a brief description of his or her qualifications—to *journals@amstat.org*. The search committee will then contact nominees to see if they are interested in applying.

Applications should include a CV, names of three references, and a letter of interest that includes a brief statement of the candidate's vision for the publication, directions the candidate would pursue, and contributions she or he would make if selected.

The deadline for nominations is December 1. Interested nominees must then send their applications by January 15, 2011. Both nominations and applications should be sent to *journals@amstat.org*.

The American Statistician publishes articles of general interest to the statistical profession that ordinarily are not highly technical. The journal is organized into the following sections: Statistical Practice, General, Teacher's Corner, Statistical Computing and Graphics, Reviews of Books and Teaching Materials, Letters, History Corner, and Interdisciplinary.

For more information about *The American Statistician*, see *http://pubs.amstat.org/page/tas/aims-and-scope* and *http://pubs.amstat.org/page/tas/information-for-authors*. ■

Staff Spotlight **Cherrika Gordon**

Gordon

Greetings! My name is Cherrika Gordon and I am one of the newest kids on the block here at the ASA. My job title: customer care representative. Since coming to the ASA in March, I've worked to give the best customer service I can. I have become more familiar with customer memberships, as well as the whole process in general of obtaining an ASA membership.

In my spare time and when I'm not at work, I devote my time to my 5-year-old son, DaJuan. This little man keeps me on my feet, whether it's playing with cars and trucks, watching cartoons that I'm not quite interested in, or just having general mommy and son conversations.

Once he has pretty much talked a hole in my head, I tend to ease my brain and engage in the activity he hates the most and I just can't get enough of … shopping! Besides having a shopping addiction, I love to create crafty items for baby showers, birthday parties, and family holiday events.

It was a pleasure to meet many of you at the yearly JSM conference in Vancouver this past August. It was a wonderful experience, and I look forward to working with you all. If you need any assistance, please feel free to contact me at *cherrika@amstat.org*. ■

online courses in statistics

- → Survey of Statistics for Beginners
- → Intro Stats for Beginners
- → Intro Stats 1–Single Variable
- → Intro Stats 2–Bivariate Data
- → Intro Stats 3–ANOVA and Regression
- → Intro Stats 1 (for AP Teachers)
- → Intro Stats 2 (for AP Teachers)
- → Matrix Algebra
- → Calculus Review

- → Assessment/Measurement in Education
- → Bayesian Computing
- → Bayesian Statistics
- → Bayesian MCMC
- → Bootstrap
- → Biostatistics
- → Categorical Data Analysis
- → Categorical Modeling
- → Choice Analysis
- → Clinical Trial Statistics
- → Clinical Trials–Adaptive
- → Clinical Trials–Bayesian
- → Clinical Trials–Bioavailability
- → Clinical Trials–Safety
- → Clinical Trials–PK & Dose
- → Clinical Trials–Selection Bias
- → Cluster Analysis
- → Count Data Modeling
- → Data Mining–Classification & Prediction
- → Data Mining–SAS EM Practicum
- → Data Mining–SPSS Practicum
- → Data Mining–Unsupervised Learning
- → Decision Trees
- → Design of Experiments
- → Engineering Statistics
- → Environmental Bayesian
- → Environmental Statistics
- → Environmental Sampling
- → Epidemiological Statistics
- → Factor Analysis
- → Financial Risk
- → Generalized Linear Models
- → Logistic Regression
- → Longitudinal & Panel Data
- → Maximum Likelihood Estimation
- → Meta Analysis
- → Microarray Data in R
- → Missing Data
- → Mixed Models (incl. HLM)
- → Modeling–Intro
- → Multivariate
- → National Income Statistics
- → Natural Language Processing
- → Nonparametrics
- → Probability Distributions
- → R (Intro, Programming, Modeling, Graphics, ggplot)
- → Randomization Tests
- → Rasch Measurement
- → Regression
- → Resampling
- → Risk Analysis
- → Sample Size and Power
- → SAS–Basics
- → Spatial Statistics (w/ GIS)
- → Statistical Process Control
- → Stochastic Processes
- → Structural Equation Modeling
- → Support Vector Machines in R
- → Survey Design and Analysis
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Marietta Tretter
David Unwin
John Verzani
Brady West
Dean Wichern
Hadley Wickham

Journal of Statistics Education Highlights

Two New Teaching Bits Featured in Latest Issue

John Gabrosek, *JSE* Editor

The July issue of *JSE* includes 10 regular articles, two new Teaching Bits, and a rejoinder from Deb Rumsey to the letter from Michael Granaas in the March issue about whether to teach variance.

Two papers look at graphical representations. In "Normal Approximations to the Distributions of the Wilcoxon Statistics: Accurate to What N? Graphical Insights," **Carine A. Bellera**, **Marilyse Julien**, and **James A. Hanley** use graphical insights to help students understand the logic of rank-based tests. **Linda L. Cooper** and **Felice S. Shore** discuss student misconceptions in interpreting variability from histograms, distribution bar graphs, and value bar charts in "The Effects of Data and Graph Type on Concepts and Visualizations of Variability." They also introduce several graphical tools for visualizing variability.

Four papers discuss aspects of teaching statistical inference. In "Random Numbers Demonstrate the Frequency of Type I Errors: Three Spreadsheets for Class Instruction," **Sean Duffy** provides three Excel worksheets for teachers and students to use when investigating type I error. The exercises are designed to address issues related to testing multiple relations using correlation, t-tests varying in sample size, and multiple comparisons using analysis of variance.

Steven D. LeMire discusses the framework for statistical hypothesis testing in the context of Toulmin's model of argument in "An Argument Framework for the Application of Null Hypothesis Statistical Testing in Support of Research." Josh Tabor uses simulation to delve deeper into the 2009 AP Statistics exam investigative task that asked students to construct a measure of skewness. In "Investigating the Investigative Task: Testing for Skewness. An Investigation of Different Test Statistics and their Power to Detect Skewness," he compares the power of some of the most common student responses.

The fourth paper that deals with inference is by **Aaron Weinberg**, **Emilie Wiesner**, and **Thomas J. Pfaff** and titled "Using Informal Inferential Reasoning to Develop Formal Concepts: Analyzing an Activity." The authors discuss a hands-on activity designed to help students draw informal inferences about a bag of bingo chips and connect these ideas to the formal t-test and confidence interval.

The remaining four regular papers cover a variety of topics. **Felicity B. Enders**, **Sarah Jenkins**, and **Verna Hoverman** discuss the use of peer review in teaching multiple regression to graduate students in "Calibrated Peer Review for Interpreting Linear Regression Parameters: Results from a Graduate Course."

In "Maximizing a Probability: A Student Workshop on an Application of Continuous Distributions," **Martin Griffiths** discusses an activity that can be used to introduce students to several common continuous probability models.

In the second paper of a series, **Jennifer Kaplan**, **Diane G. Fisher**, and **Neal T. Rogness** look at five statistical terms and the meanings most commonly expressed by students at the end of an undergraduate statistics course in "Lexical Ambiguity in Statistics: How Students Use and Define the Words Association, Average, Confidence, Random, and Spread."

Amanda S. Williams looks at the role instructor immediacy plays in student anxiety in "Statistics Anxiety and Instructor Immediacy." Results show that instructor immediacy is related to six factors of statistics anxiety.

Audbjorg Bjornsdottir and **Joan Garfield** highlight recent papers of interest in "Teaching Bits: Statistics Education Articles from 2009 and 2010." **Michelle Everson** and **Ellen Gundlach** focus on recent additions in "Teaching Bits: What's New with CAUSEweb and MERLOT?"

Finally, *JSE* bids farewell to the regular Teaching Bits feature written by **Deborah J. Rumsey**. In her final contribution, Rumsey responds to Michael Granaas' letter in the March issue about whether and when variance should be taught in "Teaching Bits: Random Thoughts on Teaching."

The rejoinder is to "Let's Just Eliminate the Variance." ■

Receive email notification of new issues of *JSE*. Send an email asking to be placed on the email list to *JSE* editorial coordinator, Jean Scott, at *jse@gvsu.edu*.

The American Statistician Highlights

Statistical Practice Articles Open Issue

John Stufken, *TAS* Editor

Book Reviews

Applied Statistical Genetics with R: For Population-Based Association Studies
Andrea S. Foulkes

Dynamic Linear Models with R
Giovanni Petris, Sonia Petrone, and Patrizia Campagnoli

Introduction to Scientific Programming and Simulation Using R
Owen Jones, Robert Maillardet, and Andrew Robinson

An Introduction to Statistical Inference and Its Applications with R
Michael W. Trosset

Linear Programming with MATLAB
Michael C. Ferris, Olvi L. Mangasarian, and Stephen J. Wright

Making Sense of Data II: A Practical Guide to Data Visualization, Advanced Data Mining Methods, and Applications
Glenn J. Myatt and Wayne P. Johnson

Mathletics: How Gamblers, Managers, and Sports Enthusiasts Use Mathematics in Baseball, Basketball, and Football
Wayne L. Winston

A Modern Approach to Regression with R
Simon J. Sheather

Picturing the Uncertain World: How to Understand, Communicate, and Control Uncertainty Through Graphical Display
Howard Wainer

A Quantitative Tour of the Social Sciences
Andrew Gelman and Jeronimo Cortina (eds.)

Statistical Methods in e-Commerce Research
Wolfgang Jank and Galit Shmueli (Eds.)

Statistical Modelling in R
Murray Aitkin, Brian Francis, John Hinde, and Ross Darnell

Understanding Probability: Chance Rules in Everyday Life (2nd ed.)
Henk Tijms

The Manager's Guide to Statistics
Erol A. Peköz

Multilevel and Longitudinal Modeling Using Stata (2nd ed.)
Sophia Rabe-Hesketh and Anders Skrondal

Probability and Statistical Inference (8th ed.)
Robert V. Hogg and Elliot A. Tanis

Free *TAS* Download

The featured article for this issue of *TAS* is "Strategies for Pulling the Goalie in Hockey," by David Beaudoin and Tim B. Swartz. This article will be available to download free for a limited time. Just go to *http://pubs.amstat.org/loi/tas* and click on the August issue.

The August issue opens with the Statistical Practice article, "Strategies for Pulling the Goalie in Hockey," by **David Beaudoin** and **Tim B. Swartz**. The authors develop methodology to assess strategies for hockey teams to pull their goaltender. Does it pay to pull a goaltender when trailing in the game, and if so, when? Using data from the National Hockey League (NHL) and Bayesian methods, the authors develop a simulator that allows them to compare strategies.

The second article in this section is "Two Pitfalls in Survival Analyses of Time-Dependent Exposure: A Case Study in a Cohort of Oscar Nominees," by **Martin Wolkewitz**, **Arthur Allignol**, **Martin Schumacher**, and **Jan Beyersmann**. The authors discuss the occurrence of length bias and time-dependent bias in the context of survival analysis. Using a data set with information about Oscar-nominated actors, the authors advocate and illustrate the use of multi-state models to avoid such forms of survival bias.

In the History Corner article, "Ronald Fisher and Gertrude Cox: Two Statistical Pioneers Cooperate and Collide," **Nancy S. Hall** describes interactions between Fisher and Cox. After a brief introduction to each, Hall discusses Fisher and Cox's often positive and synergistic interactions, but she also details a more difficult episode related to a paper Fisher submitted to *Biometrics* at a time when Cox was the editor.

The Teacher's Corner starts with "When Can One Test an Explanation? Compare and Contrast Benford's Law and the Fuzzy CLT," by **David Aldous** and **Tung Phan**. The authors present ideas for the content of an upper-level undergraduate probability course. The course they have in mind is one in which probability is taught through student projects on real-world phenomena, offering the students a "lab experience" to develop their thinking about probability. In addition to suggestions for the content of such a course, the article offers notes for instructors.

The second article in this section, "A Moment-Generating Function Proof of the Lindeberg-Lévy Central Limit Theorem," by **Mark Inlow**, is aimed at first-year graduate students and offers exactly what it promises in the title. **Nitis Mukhopadhyay** stresses the importance of being careful and precise when making statements about relationships between independence, zero covariance, and zero correlation in his article, "When Finiteness Matters: Counterexamples to Notions of

Covariance, Correlation, and Independence."

In the General section, **Joseph Hirschberg** and **Jeanette Lye** present a geometric approach for comparing the Delta and Fieller methods for the construction of confidence intervals of a ratio of parameters under normal distribution assumptions in "A Geometric Comparison of the Delta and Fieller Confidence Intervals." In "Fixed-Width Sequential Confidence Intervals for a Proportion," **Jesse Frey** develops sequential procedures for obtaining exact confidence intervals for a binomial proportion p that have a user-specified width. Frey demonstrates the use of the procedures through a simple simulation study.

In "Closed Form Prediction Intervals Applied for Disease Counts," **Hsiuying Wang** proposes two new prediction intervals for the frequency with which a disease occurs. The methods are compared to existing methods, with special attention given when the disease proportion is small. For a variety of scenarios, **Russell Y. Webb**, **Peter J. Smith**, and **Abdulla Firag**, in "On the Probability of Improved Accuracy with Increased Sample Size," attempt to quantify the probability of improved inference as the result of an increase in sample size. They develop an expression for a required increase in sample size that, with a specified probability, ensures a desired improvement for inference.

In the final article of this section, "Consistency of Normal Distribution-Based Pseudo Maximum Likelihood Estimates When Data Are Missing at Random," **Ke-Hai Yuan** and **Peter M. Bentler** show that, when variables with missing values are linearly related to observed variables, the normal distribution-based pseudo MLEs are still consistent. ■

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UW Department of Statistics Celebrates 50 Years

Richard Johnson, Professor Emeritus

In June of 2010, the department of statistics at the University of Wisconsin celebrated its 50th anniversary with a research conference, Statistical Science—Making a Difference, in Madison, Wisconsin. Events honoring the founding of the department and the many achievements in statistics and science were featured.

The inspiration for a separate department of statistics came from several faculty members in the business school, school of agriculture, and other departments having a strong quantitative component. An international search for a chair resulted in George E. P. Box being appointed (1960–1991) as the founding chair.

Box's first new faculty members included John Gurland and Norman Draper. His desire to have applications play a central role led Box to create a department in which some members held joint appointments with other departments. Toward this goal, he created joint faculty appointments for three students whose theses he had mentored: George Tiao (1962–1983), business school; Bill Hunter (1963–1986), school of engineering; and Sam Wu (1965–1979), mechanical engineering. He also started a long-running research program with professors in chemical engineering.

Many other professors strengthened the theoretical component of the program and led to its reputation for being strong and balanced: Jerome Klotz (1965–1999), Gouri Bhattacharyya (1966–1995), Richard Johnson (1966–2008), George Roussas (1966–1976), Steve Stigler (1967–1978), Grace Wahba (1967–), and Bernie Harris (1967–2002).

In 1967, the department moved into a new building shared by statistics, computer science, and an administrative computing group. Robert Miller (1968–2005), joint with the business school, and John VanRyzin (1969–1979), who guided an early group of biostatisticians, increased connections with those areas.

During this time, Box was doing pioneering work with G. Jenkins on time series. He also began the famous Monday night beer sessions at his home. Interested students and faculty would listen to a short presentation about a statistical problem and then discuss it. Often, results of implementing the suggestions that grew out of the discussions were reported in the following weeks.

The department developed a strong program over the next several years that featured a balance of theory and practice. Advances in time series, design of experiments, and applications in engineering continued. Greg Reinsel (1976–2004) and Jeff Wu (1977–1990) were important contributors to time series and design, respectively.

Brian Joiner (1974–1984), who developed a consulting lab, and Tom Leonard (1980–1995) and Robert Wardrop (1974–2006) were added to the department. The joint appointments held by Jed Frees (1984–1997) of the school of business and Tom Kurtz (1986–2008) of the department of mathematics strengthened those areas.

Over the years, the joint appointment positions became concentrated in biometry in the school of agriculture and biostatistics in the medical school. Current faculty members associated with the biometry program are Cecile Ane, Murray Clayton, Bret Larget, Brian Yandell, and Jun Zhu.

Full-time faculty members in the department are Doug Bates, Kjell Doksum, Wei-yin Loh, Erik Norheim, Zhigang Qain, Jun Shao, Kam Tsui, Wahba, Yazhen Wang, Chunming Zhang, and Zhengjun Zhang. Dave DeMets oversees statistical activities in the medical school, while Barry Storer, Michael Kosorok, and Jason Fine help strengthen the biostatistics program.

A new biostatistics and medical informatics department was created recently and includes Rick Chapell, DeMets, Sunduz Keles, Michael Newton, and Sijian Wang. Several faculty members in that department—including the current interim director, KyungMann Kim—have courtesy appointments in statistics. All graduate degrees are awarded through the statistics department.

Members of the faculty have published thousands of papers and more than 30 texts and monographs. They have seen 562 master's degrees and 398 PhDs be awarded.

For more information about the anniversary celebration, visit *www.stat.wisc.edu/Department/50th_Anniversary/50th.html*. For information about the department of statistics, visit *www.stat.wisc.edu*. ■

Member Spotlight
Ming Ying Lisa Chu-Weininger

Growing up in Hong Kong, where higher education opportunity was scarce, I started working after high school. Seventeen years later, it was like a dream come true. Encouraged by my sister-in-law and younger brother, I enrolled in the Hong Kong University as a "mature student" in art history. What courage it took to go into art history when there is little or no money to be earned! However, it did open opportunities for graduate study.

My PhD is in public health management and policy sciences, and I have minors in epidemiology and biometry. I had my health services and health outcomes postdoctoral fellowship and applied for faculty jobs. I had phone interviews, but I was not a good fit for those jobs. With no impending work, my husband talked me into finishing a seventh master's degree in statistics from the University of Houston-Clear Lake in May 2009 and an eighth master's degree in mathematics from the University of Houston-Central Campus in May 2010.

After 17 years of nonstop higher education, I had collected a BA, PhD, and eight American-accredited master's degrees. Of them all, the master's degree in statistics is the one I enjoyed most. I am not a natural in statistics or quantitative methods and tried to stay away from them, but research challenges keep bringing me back.

I remember spending an entire spring break trying to finish the take-home part of the sampling design examination, compelling me to read the entire textbook. I presented my thesis-equivalent statistical consultation project almost flawlessly, anticipating every possible question. The statistics department chair was pleased with the quality of my work, saying, "It was like a very well done faculty interview presentation!"

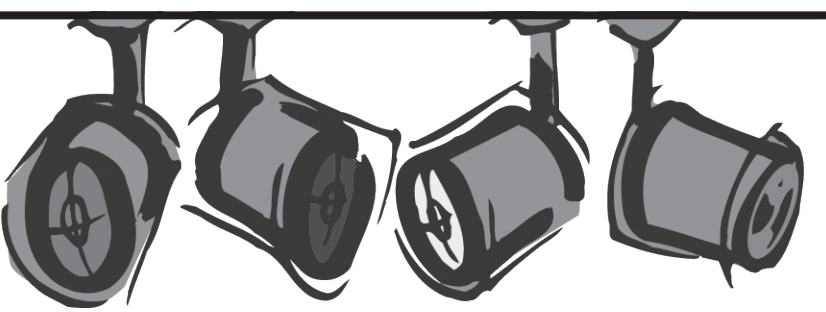
I don't know if I've earned my keep. After all these degrees, I owe my husband a great deal. What a time to finish school and try to find a job. I sent out application after application, not knowing whom I was competing with or whether I was over-qualified or under-qualified. I wondered if I would ever find a job.

I had the opportunity to ask a virtual crystal ball whether I would make a breakthrough with my current efforts. The crystal ball replied,

Chu-Weininger

"Yes, but keep working very hard." Finally, I received an offer to teach a statistics course at the University of Houston-Clear Lake.

I welcome any comments at *chuweininger@hotmail.com*. ■



Member Spotlights WANTED

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

The article should be 500 or fewer words and contain professional and personal information. Please include a photo or two of yourself and email it to *Amstat News* Managing Editor Megan Murphy at *megan@amstat.org*.

Onward with Global Statistical Capacity

From left: Panelists Nilupa Gunaratna (organizer), Bovas Abraham, Juanita Tamayo Lott (chair), Sally Morton, Denise Lievesley, and Jim Cochran

In an interconnected world, collaborative and coherent institutional response to global phenomena is a 21st-century necessity. Such response is evident in crisis situations such as earthquakes in highly populated areas or disruptions of international airline travel.

Global statistical capacity building is the way in which statisticians can understand and constructively respond to global and local phenomena in real time and over time. JSM, with the help of ASA leadership, has acted as a catalyst for identifying and distilling the components of statistical capacity, particularly in ensuring evidence-based decisions and policymaking.

A basic component—education—was introduced at JSM 2008 with Louisiana Tech University Professor Jim Cochran's presentation about an international education initiative to improve the quality of college-level quantitative education with five annual workshops (2007–2011) rotated across Latin America, Africa, and the Asia/Pacific regions.

At JSM 2009, Nilupa Gunaratna of the Nevin Scrimshaw International Nutrition Foundation focused on the diversity component by organizing an invited panel chaired by Steve Pierson, ASA director of science policy, and including diverse data collectors, analysts, and users: Cochran; Siobhan Carey of the Central Statistics Office, Ireland, Juanita Tamayo Lott of the U.S. Census Bureau, and Fritz Scheuren of the National Opinion Research Center.

Lively discussion between panelists and the audience elicited several themes. First, statistical capacity is multidimensional, developing and strengthening knowledge, skills, resources, infrastructure, institutional processes, and policy and legal frameworks at the individual, institutional, subnational, national, and international levels. Such capacity must be sustainable for gathering, maintaining, and using data for evidence-based decisionmaking and policymaking.

Second, capacity building is a participatory/collaborative process. Listening, continuing engagement, and partnership are important.

Third, one size does not fit all. Different countries have different needs (e.g., big vs. small). All countries must continuously adapt to new challenges. Cultural differences exist, but some universal elements also exist (e.g., Education systems are different throughout the world, but there are similarities in how students learn.).

Fourth, lessons can be learned from success stories. That is, don't reinvent the wheel. For example, the U.S. Census Bureau website provides access to a variety of demographic, economic, and geographic data developed and tested over decades with various stakeholders, including the

government; private, nonprofit, and university sectors; and the public. This is free nd accessible.

Fifth, effective global capacity occurs with organic leadership from the grassroots—the people who are affected by the data. Leadership and the contribution of individuals are important. Some capacity-building efforts are less successful when donors/agencies "dictate" what the goals and priorities are.

JSM 2010 focused on the role of statistical societies represented by Denise Lievesley, past president of the Royal Statistical Society and International Statistical Institute; Bovas Abraham, past president of the Statistical Society of Canada; Sally Morton, past president of the American Statistical Association; and Jim Cochran, co-chair of Statistics without Borders (SWB). Global statistical capacity was a priority for all the societies and required the integration of statistics across users and producers, educators and employers, practitioners and theoreticians. In addition to seeking complementary roles, societies could increase influence by working together and challenging bad practices. Given stagnant economies worldwide, creative new sources of funding are necessary. So also is balancing capacity building in the poorer countries while ensuring and safeguarding statistical integrity in richer nations.

In summary, global statistical capacity will become more imperative in the global village. The near future for global statistical capacity with JSM and the ASA includes the following:

- JSM 2011 session on effective global statistical capacity with organic leadership. In a time of frugal resources, what can we learn from nimble nonprofits with great track records, solid return on investment, and real outcomes for statistical capacity to complement national and institutional roles? Such capacity includes the increasing impact of global and local social networks in real time to collect, understand, synthesize, and use data for decisionmaking, from programmatic to policy levels.

> "Global statistical capacity building is the way in which statisticians can understand and constructively respond to global and local phenomena …"

- Continuing dialog and collaboration with statistical societies to advance global statistical capacity (e.g., via the International Statistical Institute Congress)
- A set of papers based on, but not limited to, JSM presentations ■

Member Funds *JSE* Award

William (Bill) I. Notz, a professor at The Ohio State University, recently approached the ASA with an offer to fund an award that recognizes the best paper published in the *Journal of Statistics Education* (*JSE*) each year.

After serving for three years as editor of *JSE* and being impressed by the quality of the papers, Notz wanted to encourage still higher quality. Therefore, a committee of six will review the articles published in *JSE* each calendar year and select a winner to receive a cash prize.

As an additional component, the award will be given in honor of an individual who has made a significant contribution to statistics education, thus honoring two people each year.

"Awards such as this one are a wonderful way to recognize the outstanding contributions of colleagues," said Ron Wasserstein, ASA executive director. "We are fortunate that, through Bill's act of generosity, we are able to recognize excellence in statistical education research."

The award will be given for the first time in the spring of 2011 for papers published during 2010. ■

Jobs for Statisticians

Keith Crank, ASA Research and Graduate Education Manager

Crank

I recently received two emails from people on opposite sides of the job search continuum. The first came from a recruiter:

> I recently read your May 2010 article in *Amstat* [*News*] on "counting statisticians" and was wondering if you received any additional clarification from your readers. I currently work with a CRO [contract research organization] as a recruiter and definitely agree with your comment, "Given the high demand and low unemployment, evidently there are not enough."
>
> I am currently developing a work force plan for our biostatistics group to address both current and future openings and would like to include some realistic projections of the available talent pool over the next 2–5 years.

The second came from someone who recently graduated with a master's degree in biostatistics and is on the job market:

> I want to applaud you, Mr. Crank, on your wonderful and inspiring editorial in the August 2010 issue of *Amstat News*. You presented a career in statistics as a secure and relatively recession-proof field, where a current graduate should not have any trouble finding a job. Actually, you mentioned verbatim, "As far as I can tell, graduate students in statistics and biostatistics, at both the master's and doctoral levels, do not have much difficulty finding jobs."
>
> I have always felt this way, also. Look at any applicable job-search website and there are hundreds of postings for analysts, statisticians, and programmers. So, as far as any person could tell, there should be no problem in a fresh graduate finding work. I'm here, as a recent graduate, to enlighten you on the reality of this situation.

As a statistician, I will first give you a few statistics to give you a picture of what my job hunt as been like since I graduated in May:

> Number of jobs I have applied to: 26
>
> Number of responses (including, "Hey we got your resume. … We'll let you know!") I have received: 12
>
> Of these responses, the number of initial interviews: 8
>
> Of these interviews, the number that resulted from job placement centers at conferences: 6
>
> Of all the initial interviews, the number that resulted in onsite/follow-up interviews: 3
>
> Of all the interviews, the number [of interviewers who] notified me that the job was no longer available/I didn't get it: 2
>
> Number of staffing places stalking me that offer no help whatsoever: 5
>
> Number of thank-you cards/follow-up emails I have written: 32

It may be noticeable what the trend here is, but let me clarify anyhow. NO ONE has the decency to respond to applicants anymore. For over half of my applications, I did not get a single response back. For all the time, effort, and thought I put into each and every one of those cover letters, at the very least, I deserve a "We got it, thanks!"

> But let's forget about those people. What about the ones who responded, then dropped off the face of the planet? If you notice, of the people who bothered to respond, two-thirds went on to do an initial interview, and three actually did onsite interviews. However, only two, yes TWO, companies have notified me to let me know I didn't get the job.
>
> So I want to paint this picture in your head of what is actually happening to fresh graduates these days: We email, you email, we interview, we write beautiful thank you letters, we email, we email, we never hear from you again. Where are the days of job-hunting etiquette? Is it only reserved for those with 5+ years of experience? I'm not alone in this frustration. My sentiments have been echoed by fresh graduates across quite a few disciplines.
>
> So, Mr. Crank, while a career in statistics may be secure and jobs may appear abundant, I can assure you things aren't as easy as they appear. I think it is beneficial for you and everyone to understand the lack of respect fresh graduates are dealing with in these times. And, yes, I view blatant nonresponse as a lack of respect. Maybe your next article in *Amstat News* should be about employer hiring etiquette or how recent graduates can actually get one of these stat jobs.

There seems to be a disconnect here. Is there a problem finding jobs at the master's level? (Is the PhD level better, or worse?) Are jobs available that students have difficulty finding out about? And what about the etiquette issue? What should be expected (from both sides) with regard to communication about the job search process? What can students and recruiters do to improve the job search situation?

Feel free to comment online at *http://magazine.amstat.org*, or you can send comments directly to me at *keith@amstat.org*.

I also want to correct some information I put in my August column about Bureau of Labor Statistics projections. Their surveys do include companies headquartered outside the United States that have offices here. And they define their job categories on their forms, rather than relying on job titles. They do agree that they would not pick up new and emerging industries that need statisticians.

Finally, let me identify the National Science Foundation statistics and probability program directors for this year. Gabor Szekely (*gszekely@nsf.gov*) and Grace Yang (*gyang@nsf.gov*) continue from last year. Haiyan Cai (*hcai@nsf.gov*), from the University of Missouri - St. Louis, replaces David Stoffer as the third program director in statistics. Tomek Bartoszynski (*tbartosz@nsf.gov*) continues as the program director in probability. ■

Olkin Named Recipient for Marvin Zelen Leadership Award in Statistical Science

The department of biostatistics at the Harvard School of Public Health recently 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 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 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, greatly affected the theory and practice of statistical science. While individual accomplishments are considered, the most distinguishing criterion is the person's contribution to an environment in which statistical science and its applications flourish. Olkin will deliver a lecture on statistical science at the Harvard School of Public Health and be presented with a citation and honorarium.

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 via email to *aemoore@hsph.harvard.edu*. Nominations should include a letter describing the contributions of the candidate, specifically highlighting the criteria for the award, and a curriculum vitae. Supporting letters and materials would be helpful to the committee.

All nominations must be received by November 15.

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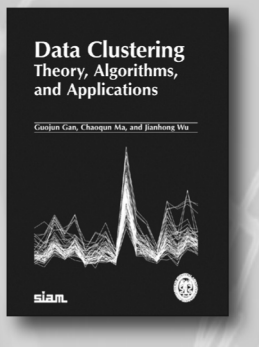

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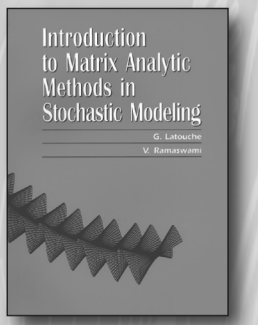

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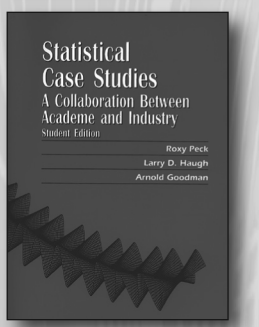

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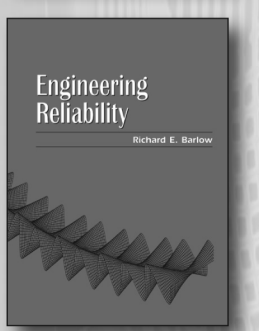

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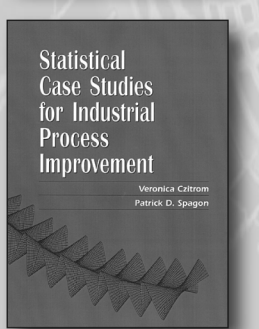

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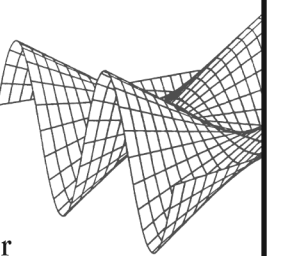

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Authors Disagree with Claims in Review of *The Path Forward*

Dear Editor,

Keith Crank's review of *The Path Forward* in the July issue of *Amstat News* asserts that the recommendations set forth in the report are not supported by the data presented. We disagree with Dr. Crank's assertion and believe the data presented accomplish the report's goal of providing reasoned arguments, supported by existing empirical evidence, on the future of graduate education.

The report addresses a multitude of complex issues by synthesizing and interpreting the available data from well over 100 studies and sources. While, as researchers, we agree that it is preferable to utilize data from one, single data set or time period to support any set of claims, no single source of available information could have accomplished this. Unlike with a traditional research study, we did not collect or analyze data specifically for this report, nor did we have a predetermined hypothesis to support or reject. Consequently, a major criterion in selecting data for the report was that it come from the most credible and current sources. When relying on pre-existing data, it is not always possible to perfectly address the issue being discussed, let alone have related data always align. Indeed, what is remarkable is that, despite the issues inherent in using data from multiple sources, these data tell essentially the same story.

Dr. Crank's review claims that the report sometimes does not distinguish "between counts and percentages" and performs what he calls a "mixed metaphor of data use." However, the examples he uses as supporting evidence focus on minor technical points that do not undermine the report's findings or its conclusions.

For one of his examples, he suggests that the data presented are inconsistent because the discussion first cites data related to one age cohort and time period for graduate students and later cites data using a different age cohort and a slightly different time period for undergraduates, arguing that "It's not clear why they couldn't use the same time period and age cohort, and they give no explanation for the difference." This is merely an example of the lack of exactly parallel data available when utilizing multiple sources. However, we feel that the similar time period makes the comparison valid, especially in the context of a policy report such as *The Path Forward*.

In another example, Dr. Crank cites a sentence containing two separate data points on the rate of college graduates earning advanced degrees and on

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increases in graduate enrollment. He correctly notes that the two data points refer to "totally different objects," but the text never asks the reader to directly compare them in a statistical sense. The purpose was to juxtapose the good news on increasing graduate enrollments with the continuing problem of the small percentage of undergraduates who eventually complete a graduate degree. Since the mission of the report was to generate discussion among a wide range of audiences, the role of the data in the report was to provide supporting information around issues, not to focus on statistical nuance, significance, or modeling.

Dr. Crank also questions the report's statement concerning the number of international students enrolled in doctoral programs needing to stay in the United States in order to keep the number of doctorates in the work force constant. He argues that since PhD production is increasing, "the stay rates would need to decrease to keep the total number of doctoral graduates living in the United States constant." While Dr. Crank's calculation is accurate as he frames it, there is an unstated assumption in the report that the total number of PhDs awarded will remain relatively constant in the short run. Perhaps this assumption should have been explicitly addressed, but, more importantly, it is an entirely reasonable one, as the year-to-year change in the total number of degrees is very small, and, as a proportion of the population, it has been flat for the last 30 years (see Figure 3 in the report). A change in immigration policies or enrollment decisions could have a dramatic effect on stay rates in the short run (and hence on the number of potential employees with PhDs available to U.S. employers), but changes in the overall number of PhDs produced are likely to be much more gradual. Therefore, the key concern for policymakers is indeed the number much more than the percent.

In a later commentary, Dr. Crank focuses on the employment projections cited in the report, indicating that the data do not support the need for more advanced degrees. He argues that since the projected increase in jobs requiring master's degrees is about 2% per year over the next eight years, while the increase in master's degree production had been 4% from 1995 to 2005, why are more resources needed if production is outpacing demand? If the report claimed that master's degree production would continue to increase at 4% per year, this would be a valid criticism; however, such projections are neither cited nor suggested. Indeed, the report addresses many of the factors (including changing demographics, international participation, and completion rates for students) that make this rate of increase questionable.

Dr. Crank stated he was "excited to hear about this report, as someone who believes graduate education is important," but, unfortunately, he has not used his forum to discuss the recommendations of the report or provide examples of data or statistics he feels might be better suited to make the case of why graduate education is important. We believe that the recommendations in the report are supported by the data provided and the types of analyses used and that *The Path Forward* report is already achieving its intended purpose of stimulating vigorous discussions about graduate education and its role in America's future.

Cathy Wendler
Principal Director, Foundational and Validity Research, Educational Testing Service

Nathan Bell
Director, Research and Policy Analysis, Council of Graduate Schools

STATISTICIAN'S **VIEW**

Statistician's View is a place for members to express viewpoints about ASA issues and important topics in statistics. If you have an opinion you would like to present or you want to respond to something you have read in this or other issues of *Amstat News*, please send your letter to:

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Statisticians Are Heroes?

Niki Arya, Principal Statistician at GlaxoSmithKline

When I tell people I am a statistician, they make comments like, "Wow, you must be really good at math." Some ask questions like, "So, do you sit behind a computer crunching numbers all day?" It seems statisticians are generally perceived as bookish individuals who do a lot of behind-the-scenes mathematical grunt work for a study, such as performing the power and sample size calculations during the design phase and running a bunch of statistical tests once the results are known. It is understood and well respected that every study needs a statistician, but we often don't get the glory or glamour that certain others receive.

This is why I was so pleasantly surprised by a reaction I recently got when someone found out I was the statistician on a certain project. I was assigned to be the statistician on a bioequivalence study comparing alternative formulations of an oncology compound to the commercial tablet. Although the commercial formulation is biologically effective, it is not easy for the cancer patients to take because of its large size. The purpose of the study is to find a more easily administered alternative formulation that is bioequivalent to the commercial formulation.

I started to do some sample size calculations. Because of the high pharmacokinetic variability with the drug, the planned sample size for the trial would be very high, potentially leading to logistical difficulties and long delays in trial completion.

So, I had to think outside the box and come up with creative approaches to the design. After doing a bit of research and consultation with some statistical experts, I came up with an adaptive design with interim analyses to potentially stop the trial early for efficacy (to declare bioequivalence) or futility (to fail to declare bioequivalence). These interim analyses can potentially lead to a substantial reduction in sample size, if the rules for early stopping are met. As a statistician, I felt I was just doing my job, coming up with this more feasible adaptive design.

Well, several months ago, I joined a rock-climbing group outside of work and saw someone who looked familiar. She looked back at me, and I got the impression she thought I looked familiar, as well. We started talking and it turns out she was the formulation chemist for the bioequivalence study. We had seen each other at large team meetings and had talked in a group setting, but it was the first time we met one-on-one. When I told her I was the statistician on the study, she got excited and commended me for the study design. Apparently, she and her team of scientists thought I was the 'hero' for developing a study design that potentially reduces the sample size and saves the company a lot of money. I was so flattered by her reaction. I never thought statisticians would be seen as heroes!

The next week, when I saw her rock climbing again, she mentioned that one of the other scientists on the study—someone I barely knew—told her to tell me "hello." I had no idea my study design would generate so much attention. So much for the notion that statisticians are behind-the-scenes number crunchers who often go unnoticed!

Niki Arya takes a break from rock-climbing.

This experience shows just how much of an impact statisticians can have in a company. We are more than just the math experts. We are scientists who bring a unique perspective to research because of our quantitative skills. In an age in which pharmaceutical companies are desperately trying to reduce costs, our innovative study designs and methods for analyzing data are critical to improving the efficiency of drug development. I encourage all statisticians to step up to the plate and fully embrace this role. It's a nice feeling to be considered a hero. ■

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Some Advice for Beginning Graduate Students in Statistics

Paul Bernhardt and Anthony Franklin

Attending graduate school in statistics can be intimidating and is challenging, even exhausting. Our hope is that this column helps alleviate some of the pressure and anxiety and provide a simple guide. The mistakes mentioned here have all been made before, and some of you will make them again. That is okay, because what is important is to learn from them.

1. Common Misconceptions

Graduate school is just an extended form of undergraduate education. Though many incoming statistics students are confident and have had great academic success in the past, graduate school in statistics is generally much more challenging than undergraduate school. The best advice we can give is to work hard and consistently. It is better to be too detailed on homework and overprepared on tests than to be sloppy and underprepared. Especially in the beginning of the semester, we recommend you work hard to get ahead so you do not have to attempt a "miracle comeback" in any of your courses.

Five or six classes make an appropriate course load. Though an especially talented graduate student might be able to succeed with five classes each semester, most of us would fail. Keep the number of classes you take to a minimum at first—three to four is more than enough in most statistics graduate programs. Do not forget that most of you will have other responsibilities as a teaching or research assistant. Also, there is more to life than just completing courses.

Working alone is the only way to succeed. Though it is good to struggle through tough problems, build up a work ethic, and take time on your own to study for tests, there will most likely be times when you need the help of others. From the start, make friends you can work with on tough homework assignments and projects or when you are studying for a test. Be careful not to rely completely on others, but also be willing to collaborate and help others master course material.

2. Funding

Inside. In many statistics programs, student funding is feasible. However, it is safe to say that the devoted, long-term students who are active in the department often have an advantage in obtaining departmental funding. Departmental funding generally comes from two sources: a teaching assistantship (TA) or a research assistantship (RA). Teaching assistantships require working with a faculty member as an assistant to their course or serving as a course instructor for an undergraduate-level course. TAs are the most common source of funding. A research assistantship is generally offered when a faculty member has extra grant money that allows him or her to "hire" a student to work under their tutelage and focus solely on research. The stipend often depends on the available funds from the faculty member, and this position may not even require working responsibilities. If you are interested in an RA, talk with faculty members early and often and express your desire to start research.

Outside: Internships. Funding outside the department often consists of internships and fellowships. Internships are valuable because they provide great experience and improve your marketability. It is important to know that not all internships are during the summer; some internships are offered during the academic year and thus require less time commitment to

STAT*tr@k* is a new *Amstat News* column geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, *Amstat News* managing editor, at *megan@amstat.org*.

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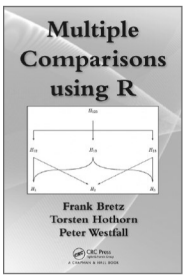

Multiple Comparisons Using R

Frank Bretz
Novartis Pharma AG, Basel, Switzerland

Torsten Hothorn
Ludwig-Maximilians-Universität München, Germany

Peter Westfall
Texas Tech University, Lubbock, USA

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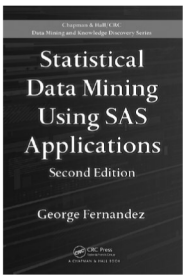

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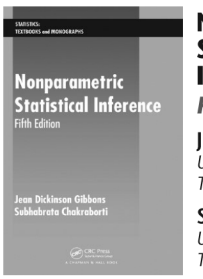

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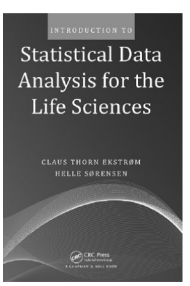

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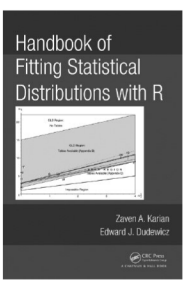

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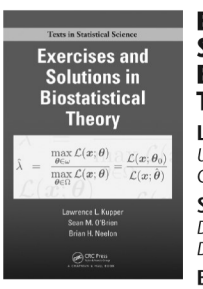

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accommodate classes (e.g., 20 hours per week as opposed to 30–40 hours per week). Many internships not only pay for tuition, but also offer a living stipend comparable to an average internal funding source. Apply to as many internships as possible that interest you, since positions are often competitive. It is important to remember that internships are real jobs and may require you to submit cover letters and résumés. Thus, keep your résumé up-to-date and professional. For a list of available internships, visit *www.amstat.org/education/internships.cfm*.

Outside: Fellowships. Another popular source of outside funding is a national fellowship. Fellowships, as with internships, are desirable and therefore competitive. It is best to apply for multiple fellowships and to apply early. Fellowships often require submitted materials such as a personal statement, a previous research statement, and a proposed research statement. It is pertinent that these materials are submitted on time and heavily proofread. If letters of recommendation are required, it is best to obtain references from those who know your acumen and work ethic intimately. Last, be aware of what is required for each fellowship. Many fellowships do not obligate you to do any work during the academic year, but involve an internship during the summer with specific requirements. These requirements may not be desirable for you, and certain fellowships may need to be excluded. For a list of available fellowships, visit *www.amstat.org/education/fellowships.cfm*.

3. Time Management

Do not procrastinate. We are sure you have heard this statement repeatedly since you first began school. If at any time this was good advice, it is "the gospel" for your graduate career. Unbelievably, some professors assign problems that take multiple hours, so start projects and homework early. For extra practice, it may even be beneficial to rewrite the solutions of solved problems again, possibly even in LaTeX, although this requires early completion of your work. Graduate school exams often test students' deeper understanding of the material and cover a significant number of topics. For this reason, start studying for exams early. As mentioned above, studying individually is important, but working in groups has its advantages.

Do not burn out. Graduate school in statistics is both challenging and time consuming. You will need to take some time away from schoolwork. If you are too involved in work, it can result in unnecessary stress and, in some cases, even depression. Therefore, take time to hang out with your friends and go on trips. Find a hobby or sport that will take your mind away from the daily grind of schoolwork. Essentially, figure out activities that de-stress you and write them into your schedule. Do not let these activities take up too much time, but also do not ignore their importance.

4. Cultural Diversity

Learn to appreciate other cultures. Just about every statistics graduate department has students from throughout the world. Even within the United States, students come from a variety of cultural backgrounds. Take time to get to know students from other countries, races, and cultures. Each culture and area of the world has unique attributes that we can learn from and enjoy.

Learn to work together. Unlike 50 years ago, statisticians in the United States are no longer mainly American by birth. We live in a world and are involved in a profession that is becoming increasingly international. Later, as statistics professionals, working with those different from you will be a necessity.

Fellowships and internships are competitive, so do not be discouraged if you are rejected multiple times. Managing your time well and learning to appreciate different cultures helps minimize stress and can make your graduate school experience more memorable. In summary, the first year of graduate school is often the most difficult, but every faculty member and older graduate student was once a first-year student. ■

JSM 2010 Highlights

On Tuesday, August 3, 2010, at the Joint Statistical Meetings in Vancouver, British Columbia, the American Statistical Association recognized several outstanding statisticians during the ASA Presidential Awards and Address session. Congratulations to all!

Many Honored at Presidential Address, Awards Ceremony

Buckingham

Solomon

Williams

Highlighting the ASA Presidential Address and Awards Ceremony during the Joint Statistical Meetings in Vancouver, British Columbia, Canada, were the announcement of the Founders Award winners and the official induction of 53 ASA Fellows. Congratulations to all.

The Founders Award is given for extended, outstanding service to the statistics profession through a variety of leadership roles. As in prior years, the names of the winners remained a closely held secret until the ceremony. The 2010 Founders Award winners are Janet Buckingham, Dan Solomon, and George Williams.

Founders

Janet Buckingham
Southwest Research Institute

For extraordinary quality and quantity of involvement in ASA chapters, sections, and committees for more than 20 years; for collegial, diligent, and disciplined leadership of the Council of Sections Governing Board and the Section on Physical and Engineering Sciences; and for outstanding service to the San Antonio statistical community.

Dan Solomon
North Carolina State University

For exemplary involvement in many ASA committees for more than 25 years; for strong support of ASA publications through lengthy service on the Committee on Publications and on the Board of Directors Electronic Communications Committee; for superb leadership of the Council of Sections Governing Board; and for his central role in launching the ASA's development program.

George Williams
Amgen Inc.

For his active role in ASA chapters, sections, and committees for more than 30 years; for his leadership as a vice president of the ASA; for service on the Executive Director Search Committee on two occasions, including once as chair; for dedicated leadership of the Council of Sections Governing Board; and for tireless promotion of partnerships as chair of the SPAIG Committee.

JSM by the Numbers

686
Sessions

242
Exhibitors

1,174
CE registrants

5,403
Total registrants (not including 262 guests and 242 exhibitors)

3,182
ASA member registrants (not including 333 new members)

594
Nonmember registrants

922
Student registrants

Fifty-three ASA members received the honor of Fellow.

Fellows

Each year, ASA Fellows are nominated by the membership and selected by the ASA Fellows Committee, chaired this year by Cynthia Clark. The number of Fellows named is limited to no more than one-third of 1% of the active ASA member total. Fifty-three ASA Fellows were inducted this year. "These 53 individuals—who represent academia, government, and industry—have made outstanding contributions to the statistics profession," said Sastry Pantula, ASA president. "They have been selected by their peers in recognition of their extraordinary achievements, and we are proud and happy to recognize them as Fellows of the ASA." The 53 new Fellows are listed below.

Paul D. Allison

Dhammika Amaratunga

Carol Joyce Blumberg

James J. Colaianne

Brent Coull

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Richard A. Levine

Gang Li

Tapabrata Maiti

Adam T. Martinsek

George Michailidis

John F. Monahan

Motomi Mori

Christopher H. Morrell

Jeri Metzger Mulrow

Paul Ross Murrell

Dayanand N. Naik

Nagaraj K. Neerchal

George Ostrouchov

Omer Ozturk

J. Lynn Palmer

Wei Pan

Sung Hyan Park

Moshe Pollak

John S. Preisser

Annie Peiyong Qu

Fabrizio Ruggeri

Estelle Russek-Cohen

Carolyn M. Rutter

Bruno Sanso

Nora Cate Schaeffer

Christopher H. Schmid

Nagambal D. Shah

Yu Shyr

Brian L. Wiens

Rongling Wu

Laura Zayatz

Haibo Zhou

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

Samuel S. Wilks Memorial Award

The Samuel S. Wilks Memorial Award was established in 1964 to honor the memory and distinguished career of Sam Wilks by recognizing outstanding contributions to statistics that carry on the spirit of his work. The 2010 Wilks award winner is **Pranab K. Sen** of The University of North Carolina at Chapel Hill. He is being honored for outstanding contributions to statistical research, especially in nonparametric statistics and biostatistics, and for exceptional service in mentoring doctoral students.

Gottfried E. Noether Awards

The Noether awards were established in 1999 by the wife and daughter of the late Gottfried Emanuel Noether of the University of Connecticut as a tribute to his memory. They recognize distinguished researchers and teachers and support research in nonparametric statistics. The Gottfried E. Noether Young Researcher Award winner for 2010 is **Elizaveta Levina** from the University of Michigan. The Gottfried E. Noether Senior Scholar Award winner for 2010 is **Jerome H. Friedman** from Stanford University.

Outstanding Statistical Application Award

Each year, the ASA recognizes the author of a paper that is an outstanding application of statistics in the physical, biological, or medical sciences. This year's winner is **Samuel Kou** for opening the door between statistics and one of the newest areas of research: single-molecule experiments.

Edward C. Bryant Scholarship Trust Fund Award

The Bryant scholarship trust is a permanent scholarship fund endowed by Westat to honor its cofounder and longtime leader, Edward C. Bryant. The award honors an outstanding graduate student who is studying survey statistics. The 2010 scholarship recipient is **Brady West** from the University of Michigan for outstanding academic achievement in survey statistics.

W. J. Dixon Award for Excellence in Statistical Consulting

Established through a gift from the family of William Dixon, this award recognizes outstanding contributions to the practice of statistical consulting. The 2010 award went to **Dallas Johnson** for outstanding contributions to advancing the science and art of statistical computing.

Waller Education Award

Retired ASA Executive Director Ray Waller and his wife, Carolyn, established the Waller Education Award in 2002 to recognize a statistics teacher early in his/her career for excellence and innovation in teaching introductory statistics at the undergraduate level. The 2010 Waller award winner is **Amy Froelich** from Iowa State University for outstanding contributions to and innovation in the teaching of elementary statistics.

The SPAIG Award

The ASA established the SPAIG Award in 2002 to recognize outstanding partnerships between academe and business, industry, and government organizations and to promote new partnerships. It is the only ASA award that recognizes organizations. This year's SPAIG award was given to **Pfizer Inc.** and **Rutgers, the State University of New Jersey**.

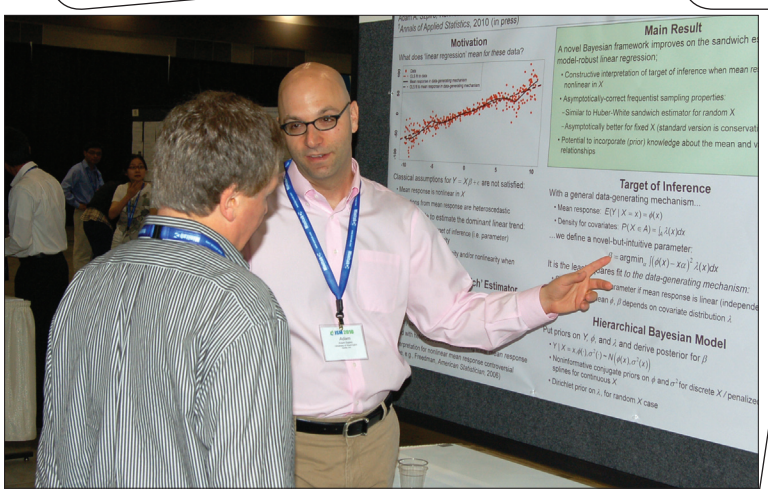
Gertrude M. Cox Scholarships

Alyssa Frazee, of The Johns Hopkins University, and **Sherri Rose**, of the University of California, Berkeley, are the winners of the 20th annual Gertrude M. Cox scholarships. Since 1989, the Cox scholarship has been awarded by the ASA Committee on Women in Statistics and the Caucus for Women in Statistics to encourage women to enter statistically oriented professions. The following women were awarded honorable mentions: Lauren Kuntz of the Harvard School of Public Health, Lauren E. Pace of Virginia Commonwealth University, Layla Parast of Harvard University, and Christine Peterson of Rice University. ■

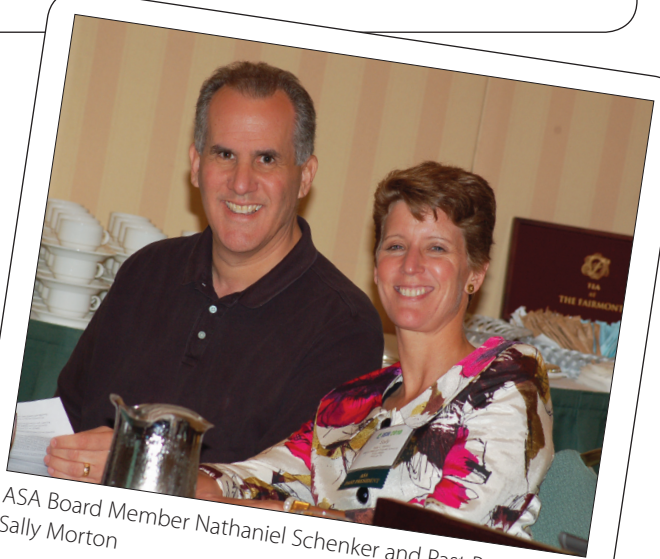
JSM in Pictures

Medallion Lecturer I, Xiao-Li Meng, with Regina Liu

From left: ASA Board Member Jeri Mulrow and President-elect Nancy Geller enjoy the fellows reception.



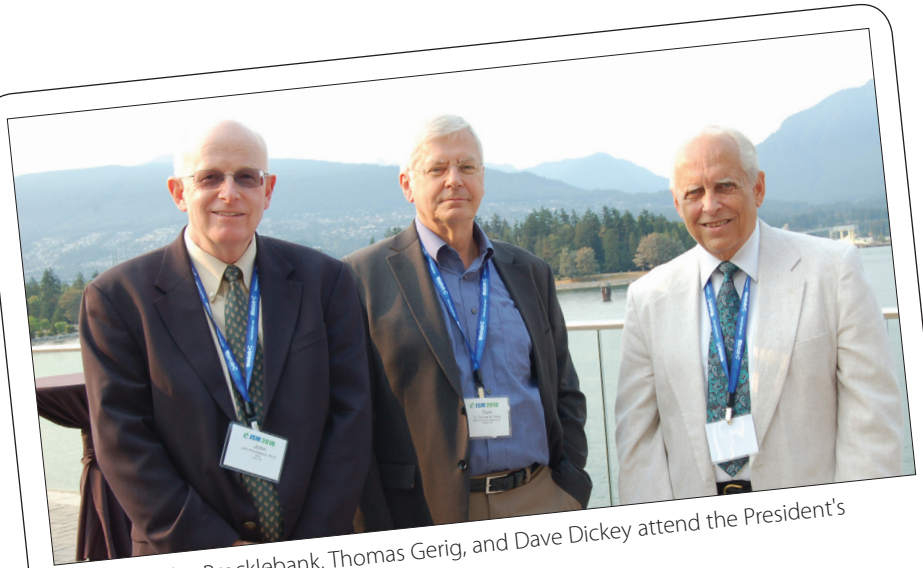
Adam Szpiro presents the poster, "Bayesian, Frequentist, or Both? Model-Robust Regression and the 'Sandwich' Estimator."



ASA Board Member Nathaniel Schenker and Past President Sally Morton

Peter Hall presents, "Using Generalized Correlation to Affect Variable Selection in Very High-Dimensional Problems."

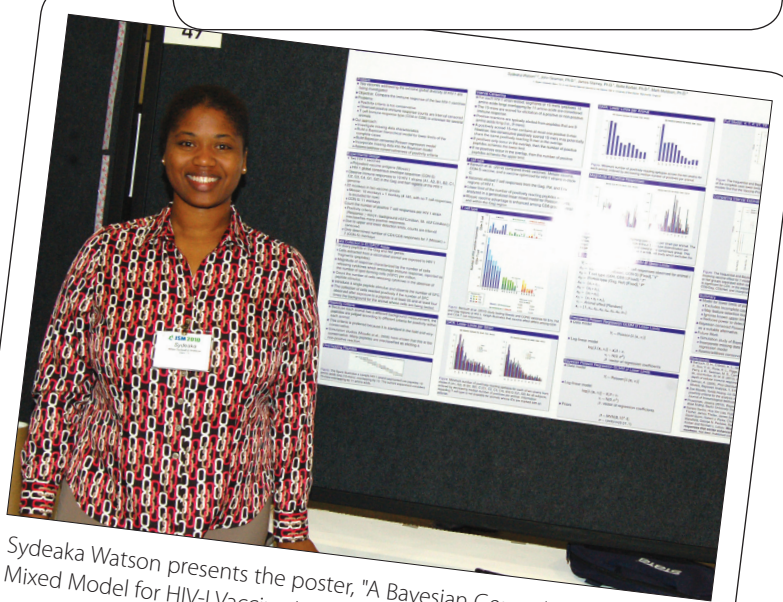
From left: Leonard Stefanski, Martha Gardner, and Terry Speed take time to enjoy the view of Vancouver while attending a reception at the Fairmont Waterfront Hotel.



From left: John Brocklebank, Thomas Gerig, and Dave Dickey attend the President's Invited Address reception.

Cynthia Clark of the National Agricultural Statistics Service takes part in the panel, "How Government Statistics Make a Difference."

Gertrude M. Cox Scholarship in Statistics Award honorable mention Layla Parast accepts her award from ASA president, Sastry Pantula.



Sydeaka Watson presents the poster, "A Bayesian Generalized Linear Mixed Model for HIV-I Vaccine Immune Response with Missing Data."

Statistical Society of Canada president, Donald L. McLeish, takes questions from the press on changes to the Canadian census.

Stat Bowl I participant Anne-Sophie Charet

Committee of Presidents of Statistical Societies

COPSS Honors Statisticians

Dunson

Thompson

Lindsay

Members of the Committee of Presidents of Statistical Societies (COPSS) are pleased to announce the 2010 award winners, presented during JSM in Vancouver, British Columbia, on August 4 by COPSS president, Xihong Lin. The winner of the Presidents' Award is **David Dunson** of Duke University for his wide-ranging and fundamental contributions to the development of parametric and nonparametric modeling within complex Bayesian frameworks; for making significant concurrent scientific progress in machine learning through this development; for use of this methodology in substantive applications, notably in reproductive epidemiology; and for outstanding service to the profession, as well as mentoring of students and postdoctoral researchers.

The Elizabeth L. Scott Award winner is **Mary E. Thompson** of the University of Waterloo for outstanding contributions in research, teaching, and service that have served to inspire women statisticians; for encouraging women at all levels to seek careers in statistics; for excellence in graduate student supervision and mentorship; and for her leadership to minimize gender-based inequalities in employment.

The 2010 Fisher Lecturer was **Bruce G. Lindsay** of Penn State. He was chosen for fundamental contributions to statistical theory that have had a profound impact on the practice of statistics, including significant results on mixture models, conditional score functions, and composite likelihood that have influenced later developments in measurement error models and spatial statistics, among other areas. His lecture was titled "Likelihood: Efficiency and Deficiency (and the Special Role of Hidden Variables)."

Award criteria and nominating procedures are available on Page 62 and at *www.niss.org/copss.* ■

SAVE the Date!

JSM 2011

Miami Beach, Florida

July 30 - August 4, 2011

For more information, visit
www.amstat.org/meetings/jsm/2011/index.cfm

Statistics Workshop for Math, Science Teachers Goes International

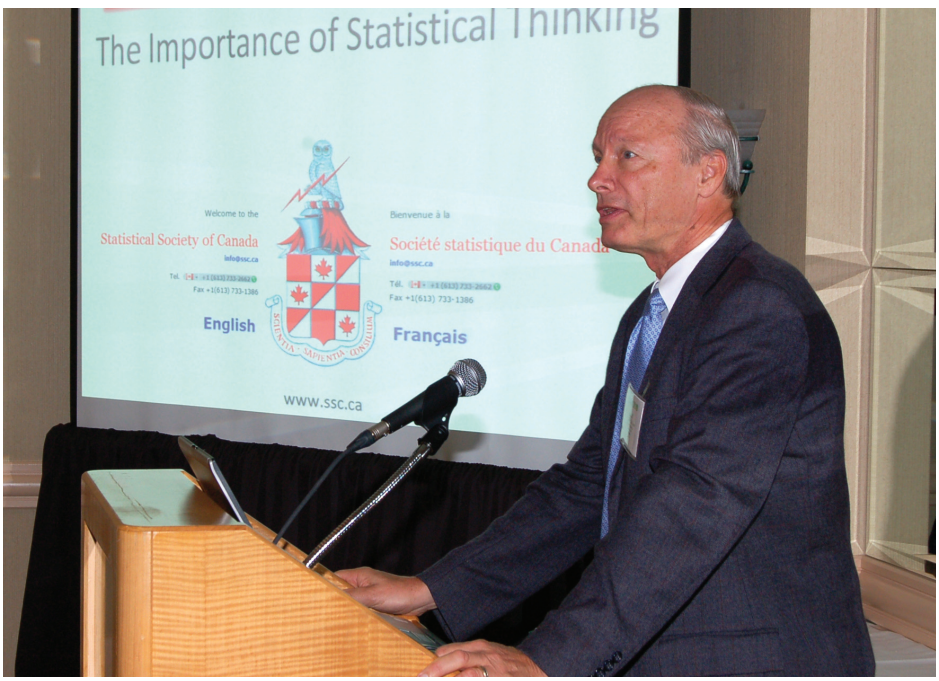
Fourth Meeting Within a Meeting held in conjunction with JSM in Vancouver, BC

Katherine Halvorsen, MWM Program Chair, and Rebecca Nichols, ASA K–16 Education Manager

The American Statistical Association and Statistical Society of Canada (SSC) jointly sponsored the fourth annual Meeting Within a Meeting (MWM) Statistics Workshop for Mathematics and Science Teachers that was held August 4–5 concurrently with the 2010 Joint Statistical Meetings in Vancouver, BC. Canadian and U.S. middle- and high-school teachers attended workshop sessions on August 4 and received passes to attend JSM sessions on August 5. The ASA and SSC will provide follow-up activities throughout the 2010–2011 school year.

The primary goals of the MWM 2010 program were to introduce middle- and high-school teachers who teach math and science courses to the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: A Pre-K–12 Curriculum Framework* (*www.amstat.org/education/gaise*) and provide an opportunity for these teachers to discuss and apply the data analysis and statistical concepts embodied in the GAISE framework.

A secondary goal was to encourage cooperation between mathematics and science teachers in the teaching of statistics. The MWM program is designed to enhance educators' understanding of statistics and provide them with hands-on activities they can use in their own classrooms to strengthen the teaching of statistics in their schools. The follow-up program will include email contact with participants, new webinars, and an archive of previous webinars available at *www.amstat.org/education/webinars*.



Statistical Society of Canada President Don McLeish addresses the 2010 Meeting Within a Meeting.

"One of the primary missions of the American Statistical Association is to work for the improvement of statistical education at all levels," said Ron Wasserstein, the ASA's executive director. "We are pleased to reach out to the K–12 mathematics and science community through the MWM workshop and follow-up activities," he added. "MWM will not only enhance understanding and teaching of statistics concepts in the classroom, but also provide participants with a network of statisticians and educators to assist in developing the quantitative literacy of their students."

The first MWM workshop was held in Salt Lake City, Utah, in 2007 and focused on middle-school math and science teachers. Its success led Martha Aliaga, ASA director of education, to recommend expanding the Denver MWM workshop in 2008 to a two-day

Meeting Within a Meeting chair, Katherine Halvorsen

format that included separate strands for K–4, 5–8, and 9–12 teachers. MWM 2009 in Washington, DC, included parallel strands for K–4, 5–8, and 9–12 teachers on the first day with a field trip to the U.S. Census Bureau on the second day.

"The MWM workshops emphasize the growth of statistical literacy and thinking as teachers explore problems that require them to formulate questions; collect, organize, analyze, and draw conclusions from data; and apply basic concepts of probability," said Katherine Halvorsen, MWM program chair. "The MWM program includes examining what students can be expected to do at the most basic level of understanding and what can be expected of them as their skill develops and their experience broadens."

MWM 2010 began with SSC President Don McLeish, ASA President Sastry Pantula, Wasserstein, Halvorsen, and Aliaga welcoming the teachers. SSC past president, Bovas Abraham, and ASA president-elect-elect, Bob Rodriquez, also greeted the teachers. Kevin Keen of the University of Northern British Columbia provided an overview of the statistics standards for middle and high school prescribed by the Western and Northern Canadian Protocol Curriculum, and Patrick Hopfensperger of Homestead High School discussed the GAISE framework.

Hopfensperger also discussed planning statistics lessons and assessing student progress during a morning session, while Christine Franklin of the University of Georgia discussed univariate analysis of measurement data with a focus on understanding measures of center and spread.

The afternoon sessions were taught by Bill Finzer of KCP Technologies, Halvorsen, and Megan Mocko of the University of Florida. Finzer taught how to explore Census at School data from around the world with Fathom software and teach statistical problemsolving in the context of Canadian, U.S., and international Census at School data. Halvorsen discussed formulating statistical questions and exploring statistical questions through projects, and Mocko informed participants about the ASA Project Competition. The day ended with participants reflecting on the day's activities and filling out evaluations.

Teachers who stayed for the second day of the program used their complimentary pass to attend statistics education sessions at JSM, including "Initiatives to Create Guidelines for Statistics Education to Prepare Future Generations to Function Effectively in a Data-Centric World: A Progress Report," organized by the ASA/NCTM Joint Committee on Curriculum in Statistics and Probability.

All teachers attending MWM were given a certificate of participation from the ASA and SSC. Teachers also may register to receive 0.5 semester graduate credit hours through Adams State College for attending the Wednesday workshop.

MWM 2011 will take place in Miami Beach, Florida, jointly with JSM. K–12 mathematics and science teachers interested in enhancing their understanding and teaching of statistics within their curricula should register in March. Further information will be available at *www.amstat.org/education/mwm*. Questions may be directed to Rebecca Nichols, ASA K–16 education manager, at *rebecca@amstat.org* or (703) 684-1221, Ext. 1877. ■

Five Junior Faculty Win NSF CAREER Award

Five assistant professors at Georgia Tech who also won the CAREER Award over the last four years (from left)—Yajun Mei, Ming Yuan, Nicoleta Serban, Roshan Joseph Vengazihiyil, and Nagi Gebraeel—gather around Jeff Wu, a professor at Georgia Tech.

Five assistant professors in the statistics program of the Stewart School of Industrial and Systems Engineering (ISyE) at Georgia Tech have earned the National Science Foundation (NSF) CAREER Award throughout the last four years.

The five winners—Nagi Gebraeel, Yajun Mei, Nicoleta Serban, Roshan Joseph Vengazihiyil, and Ming Yuan—were recruited by Jeff Wu, an ISyE professor. Former head of the statistics program at the University of Michigan, Wu joined Georgia Tech in 2003 as the Coca-Cola Chair in Engineering Statistics.

As Wu explained, his mandate when coming to ISyE was to try something no one had tried before, namely building a strong statistics and quality program within engineering that would allow for interaction and collaboration with engineers and scientists. According to Wu, the goal of an interface between statistics and engineering has clearly been achieved, as reflected in the programs through which these awards were given: Mei and Yuan from the statistics program of the math division, Gebraeel and Vengazihiyil from the Manufacturing Enterprise System program of the engineering division, and Serban from the Service Enterprise System program of the engineering division.

Wu's selection of these faculty members for the ISyE statistics group and their earning the prestigious award were a bit serendipitous, he said. Their selection for the group was not based on work he consciously thought would be considered for this recognition of junior faculty. "We simply wanted to hire the best people and groom them," he said. "Winning a CAREER Award is one measure—though not the only one—of success." ■

James O. Berger

Ming-Hui Chen and Dipak K. Dey, University of Connecticut

In honor of **James O. Berger** and his contributions to statistical decision theory and Bayesian statistics, a conference titled "Frontiers of Statistical Decision Making and Bayesian Analysis" was held at The University of Texas at San Antonio March 17–20.

The conference included a series of short courses, six plenary speakers who covered cutting-edge research on statistical decisionmaking and Bayesian analysis, 80 invited talks given by eminent Bayesians, and a poster session for young researchers.

The conference, attended by 250 people, was highlighted by a gala dinner to celebrate Berger's 60th birthday.

Sallie Ann Keller

James Landwehr, chair of the board of trustees of the National Institute of Statistical Sciences (NISS), recently announced **Sallie Ann Keller** as the winner of the 2010 Jerome Sacks Award for Cross-Disciplinary Research. Katherine Ensor, chair of the department of statistics at Rice University, accepted the award on Keller's behalf August 2 at the NISS reception, held during the Joint Statistical Meetings in Vancouver, British Columbia.

The awards committee of the NISS Board of Trustees, which selected Keller for the award, cited "her pioneering work in cross-disciplinary research in reliability and computational technology for complex systems of critical national security and for her

leadership in forging research relationships in new areas for statisticians in government and academia."

The award, named in honor of Jerome (Jerry) Sacks, the founding director of NISS, was established in 2000 to "recognize sustained, high-quality cross-disciplinary research involving the statistical sciences," that exemplifies the NISS role of identifying, catalyzing, and fostering high-impact, cross-disciplinary research involving the statistical sciences.

In remarks read by Ensor, Keller stated "I have been fortunate to have access to important, frequently time-sensitive problems that no one person or discipline could solve. I have had, and continue to have, wonderful career appointments that continually stretch my thinking. These appointments have exposed me to the depth, breadth, and critical need for cross-disciplinary interactions."

Keller is a Fellow and past president of the ASA and one of the nation's experts in applied and theoretical statistics. She also is a fellow of the American Association for the Advancement of Science and a national associate of the National Academy of Sciences. She has served on the board of trustees of NISS and on the Statistical and Applied Mathematical Sciences Institute National Advisory Council. Prior to joining Rice, Keller was the group leader for the Statistical Sciences Group at Los Alamos National Laboratory. Before that, she was professor in the department of statistics at Kansas State University. She is a former program director for statistics and probability in the Division of Mathematical Sciences at the National Science Foundation.

2010 NISS Distinguished Service Awards Presented to Bock, Wilkinson, Thomas

James Landwehr, chair of the board of trustees for the National Institute of Statistical Sciences (NISS), recently announced **Mary Ellen Bock**, **Lee Wilkinson**, and **James Thomas** as the recipients of this year's NISS distinguished service awards. The awards were presented by Alan Karr, director of NISS, at the NISS/SAMSI reception held on August 2 at the Joint Statistical Meetings in Vancouver, British Columbia.

Established in 2005, the distinguished service awards recognize individuals who have given extraordinary service that significantly advanced NISS and its mission. As Karr put it, "The awards recognize people who didn't have to do what they did, but … did it because they care so deeply about NISS."

Bock received the award in recognition of her many years of service to NISS, including serving on the board of trustees and the executive committee for multiple terms; her seminal role in the formation of the affiliates program; and chairing the awards committee for the past two years. Bock also was involved with the Statistical and Applied Mathematical Sciences Institute (SAMSI), most recently as a member of the search committee for the new director, which also has benefited NISS.

Wilkinson served as chair of the affiliates committee for more than seven years, as vice chair of the board of trustees for four years, and as a member of the executive committee for more than six years. He helped coordinate several workshops for NISS and played a key role in forming the affiliate clusters throughout the past few years.

Thomas has served NISS and SAMSI with many complicated computing and communications needs for the past 10 years. He has literally been available "24/7," coming to work at various hours of the day and night, whenever a computing problem needed to be solved.

The names of Bock, Wilkinson, and Thomas will be added to a plaque displayed in the lobby of the NISS building in Research Triangle Park, North Carolina.

Tina Hunter

S2 Statistical Solutions, Inc. recently announced that **Tina Hunter** has been hired as senior director of analytics. In this newly created position, Hunter will manage the growing statistical effort at S2 as the company continues to expand its data analysis and research offerings.

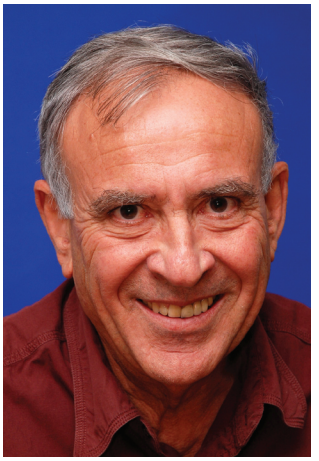
Most recently, Hunter was a biostatistician with STATKING Consulting, Inc., where she provided statistical support to sponsors of clinical trials for medical devices, pharmaceuticals, and diagnostics. Prior to STATKING, Hunter performed exploratory data analysis and statistical modeling activities for the U.S. Environmental Protection Agency. She also has an engineering background that includes roles in manufacturing, quality control, and design in GE's Major Appliance and Aircraft Engine businesses.

Hunter earned a Bachelor of Science degree in industrial and systems engineering from The Ohio State University, two Master of Science degrees from the University of Cincinnati, and a doctorate in statistics and applied mathematics from the University of Cincinnati.

Candace Gunnarsson, president and founder of S2 Statistical Solutions, said, "Tina's broad background in statistical analysis in the life sciences will play a key role in bringing our company to the next level. We are delighted that she is now part of our executive team."

Danny Pfeffermann

Danny Pfeffermann was recently named the recipient of the 2011 Waksberg Award. Pfeffermann is a professor at the Hebrew University of Jerusalem and the Southampton Statistical Sciences Research Institute, U.K. His research interests include small-area estimation, time series, and analysis of complex survey data. He recently edited (with C. R. Rao) the two-volume *Handbook in Statistics (Sample Surveys)*, published by North-Holland. His work spans the spectrum of theoretical to applied, and his interactions



Pfeffermann

with fellow statisticians are worldwide.

The journal S*urvey Methodology* established the award in honor of Joe Waksberg, who made many important contributions to survey methodology. Pfeffermann will receive a cash award made possible through a grant from Westat, Inc. in recognition of Waksberg's contributions during his many years at Westat.

As the 2011 Waksberg Award honoree, Pfeffermann will author a paper that reviews the development and current state of a significant topic in the field of survey methodology. The paper will be presented at the 2011 Statistics Canada Symposium, held in the fall of 2011, and published in the December 2011 issue of *Survey Methodology*. The tentative title of Pfeffermann's paper and talk is "How We Should Approach the Modeling of Complex Survey Data."

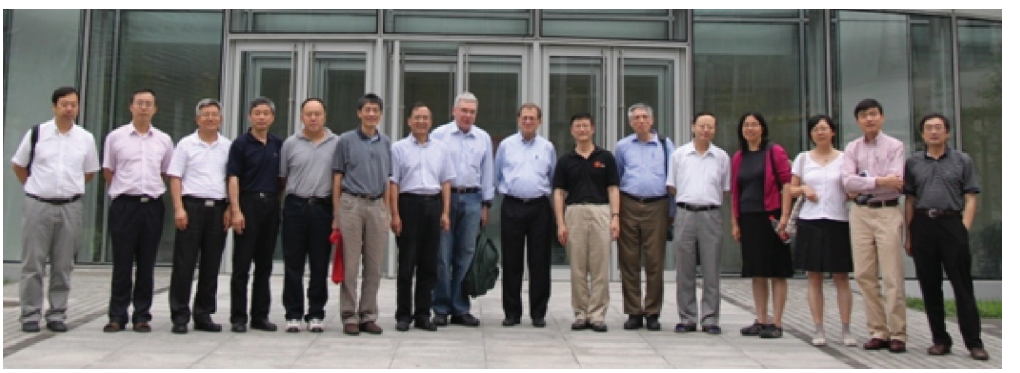
Anastasios A. 'Butch' Tsiatis

Anastasios A. "Butch" Tsiatis was recently named the inaugural Gertrude M. Cox Distinguished Professor of Statistics at North Carolina State University.

Tsiatis is known internationally for his biostatistics research, specifically in the areas of survival analysis, clinical trials, surrogate markers, cost of care, and quality of life. He has published more than 125 papers and given more than 150 invited seminars over his distinguished career. He also has been highly successful in obtaining major grant funding from the National Institutes of Health, is a Fellow of the ASA and Institute of Mathematical Statistics, and currently serves as a coeditor of *Biostatistics*.

Tsiatis earned his bachelor's degree in mathematics from the Massachusetts Institute of Technology in 1970 and his PhD in statistics from the University of California,

Peking University Establishes Center for Statistical Science



From left: Xiangzhong Fang, Dayue Chen, Weiying Zhang, Qiwei Yao, Jun Liu, Wing Wong, Jianhua Lin, Peter Hall, Peter Bickel, Xiaoming Li, Tze Leung Lai, Zhiming Ma, Bin Yu, Lan Wu, Songxi Chen, Rong Chen

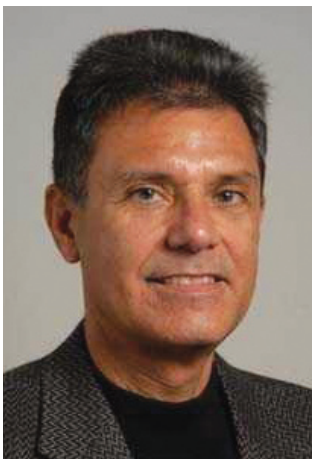
In an attempt to become a top university by 2020, Peking University (PKU) will establish a center for statistical science. The center will promote statistical science and integrate statistical faculties from several schools, including the School of Mathematical Sciences and Guanghua School of Management, to improve statistical research, education, and collaboration.

The joint directors of the center are Song Xi Chen and Zhi Geng, with Dayue Chen serving as deputy director. The international advisory committee is chaired by Wing Wong of Stanford and includes Peter Bickel of the University of California, Berkeley; Jiangqing Fan of Princeton; Peter Hall of Melbourne and the University of California, Davis; T. L. Lai of Stanford; Zhiming Ma of the Chinese Academy of Science; and Jeff Wu of Georgia Tech.

The scientific committee is chaired by Bin Yu of the University of California, Berkeley, and includes Dayue Chen of PKU; Rong Chen of Rutgers; Song Xi Chen of PKU and Iowa State); Zhi Geng of PKU; Yonghua Hu of PKU; Jun Liu of Harvard; George Tiao of The University of Chicago; and Qiwei Yao (LSE).

The steering committee is chaired by the provost of PKU, Jihua Lin, and includes Xiaoming Li, assistant to the PKU president; Changping Wang, dean of the School of Mathematical Science; and Weiying Zhang, dean of the Guanghua School of Management.

The center was formally launched on July 5. About 200 guests and colleagues attended the launch, many of whom were participants of a conference that celebrated the birth of P. L. Hsu, the founder of statistics in China and the probability and statistics program at PKU. ■



Tsiatis

Berkeley in 1974. A member of the NC State Department of Statistics faculty since 1997, he is also an adjunct professor with Duke University's department of biostatistics and bioinformatics and a member of the Lineberger Comprehensive Cancer Center at The University of North Carolina.

The endowment that supports this professorship was made possible by J. Stuart Hunter, professor emeritus in the school of engineering and applied science at Princeton.

In his letter notifying Tsiatis of his appointment, Daniel L. Solomon, dean of the UNC College of Physical and Mathematical Sciences, said, "This title of distinction is awarded in recognition of your sustained record of high scholarship and, in particular, your signal contributions to the design of clinical trials. Your appointment as the first Cox professor pays fitting tribute to the legacy of Dr. Cox."

Obituary
Barbara A. Napolitano

Submitted by
Martin L. Lesser

Barbara A. Napolitano passed away suddenly on July 20 at the age of 58.

Napolitano was assistant director of the biostatistics unit at the Feinstein Institute for Medical Research. She earned her BA in statistics and an MA in applied mathematics from Hunter College in New York.

During her 25 years in the unit, Napolitano played an integral role in the development and success of the biostatistics unit at the North Shore-LIJ Health System. Her strength was in explaining statistical methods and results to all investigators, but particularly to those who had a statistics phobia. She was giving of her knowledge to her fellow statisticians in the department, enabling junior faculty and staff to be effective in their work and to grow professionally.

Napolitano contributed to the success of many National Institutes of Health grants and was actively involved in pediatric HIV, psychiatry, and oncology research. The biostatistics unit has lost an important member of its family and she will be sorely missed.

US Team Places Third in Mathematical Olympiad

The USA Math Olympiad team, sponsored in part by the ASA, placed third in the 51st International Mathematical Olympiad (IMO). U.S. contestant Evan O'Dorney earned the second-best score among all individuals competing in the contest.

The IMO is an annual six-problem, 42-point math competition held over two days. More than 90 nations compete in the event, which is the oldest of the International Science Olympiads. Each day, participants take a 4.5-hour, three-problem exam, which covers a wide range of mathematics.

Among 96 countries and more than 500 competitors, the U.S. team won three gold and three silver medals.

The team from the People's Republic of China was this year's overall winner, with the Russian Federation placing second.

The 2010 members of the U.S. team include the following (in alphabetical order):

Calvin Deng, William G. Enloe High School, Cary, North Carolina

Benjamin Gunby, Georgetown Day School, Washington, DC

Xiaoyu He, Acton-Boxborough Regional High School, Acton, Massachusetts

In Sung Na, Northern Valley Regional High School at Old Tappan, Old Tappan, New Jersey

Evan O'Dorney, Venture School in California

Allen Yuan, Detroit Country Day School, Farmington, Michigan

For more information about the Mathematical Association of America's American Mathematics Competitions, visit *http://maa.org/news/2010imo.html*.

Obituary
Arnold Zellner

Zellner

Arnold Zellner, the founding editor of the ASA's *Journal of Business & Economic Statistics*, died August 11 at his home in Chicago. He was 83 and

suffered a stroke while battling cancer.

Zellner was born on January 2, 1927, in Brooklyn, New York, to Ukrainian immigrants Dora Kleiman Zellner and Israel (Sam) Zellner. He attended Harvard University on scholarship, earning a bachelor's degree in physics in 1949. He then earned his PhD in economics from the University of California, Berkeley, in 1957. He held appointments in the department of economics at the University of Washington and University of Wisconsin. From 1966 to 1996, Zellner was H. G. B. Alexander Professor of Economics and Statistics at the University of Chicago Graduate School of Business. In 1996, he retired from the University of Chicago, but was a frequent lecturer and visiting professor in the department of agricultural and resource economics at UC Berkeley.

Zellner won numerous awards, including the McKinsey Award for Excellence in Teaching and being named "Outstanding Statistician of the Year" by the ASA's Chicago Chapter. In an interview with Kathy Morrissey, published in the September 2006 issue of *Amstat News*, Zellner said he was most honored with two events: being elected president of the American Statistical Association and being elected president of the International Society for Bayesian Analysis.

Zellner's achievements were numerous and include founding two major journals, the *Journal of Econometrics* and the *Journal of Business & Economic Statistics*. He also started the National Bureau of Economic Research/ National Science Foundation seminar series. He wrote more than 200 scholarly articles and 22 books and monographs, including *An Introduction to Bayesian Inference in Econometrics*.

The Zellner Thesis Award in Business and Economic Statistics was established in 1994 in his name to honor the best PhD thesis dealing with an applied problem in business and economic statistics.

After retiring in 1996, Zellner continued to do a number of visiting professorships and presentations, including his Sir Richard Stone lectures, which he presented at the Bank of England and the National Institute of Economic and Social Research, London.

Zellner is survived by his wife of 58 years, Agnes, and their five children, David, Philip, Samuel, Daniel, and Michael.

To read Zellner's interview with Morrissey, visit the ASA's Statistician in History page at *www.amstat.org/about/statisticiansinhistory/index.cfm?fuseaction=biosinfo&BioID=36*. ■

Committee of Presidents of Statistical Societies

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

Fisher Lectureship and Award

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

Presidents' Award

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

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

November 15, 2010 ASA Deming Lectureship	Nominations: Pam Craven *pamela@amstat.org* Questions: A. Blanton Godfrey *abgodfre@ncsu.edu*
December 15, 2010 COPSS Fisher Lectureship and Award	Michael Newton *newton@stat.wsic.edu*
December 31, 2010 ASA Noether Senior and Young Scholar Awards	Nominations: Pam Craven *pamela@amstat.org* Questions: Pranab K. Sen *pksen@bios.unc@edu*
January 15, 2011 COPSS Presidents' Award	Mary E. Thompson *methomps@uwaterloo.ca*
January 15, 2011 COPSS Florence Nightingale David Award	Alice S. Whittemore *alicesw@standord.edu*
January 15, 2011 COPSS George W. Snedecor Award	Barry I. Graubard *graubarb@mail.nih.gov*
March 4, 2011 ASA SPAIG Award	Barry D. Nussbaum *nussbaum.barry@epa.gov* Rahul A. Parsa *Rahul.Parsa@drake.edu* Morteza Marzjarani *marzjara@svsu.edu*
March 9, 2011 ASA Statistics in Chemistry Award	Kenneth M. Goldberg *kgoldber@its.jnj.com*
March 15, 2011 ASA W. J. Dixon Award for Excellence in Statistical Consulting	Nominations: Pam Craven *pamela@amstat.org* Questions: George A. Milliken *Milliken@ksu.edu*
March 15, 2011 ASA Founders Award	Nominations: Pam Craven *pamela@amstat.org* Questions: Sastry G. Pantula *pantula@stat.ncsu.edu*

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

March 15, 2011 ASA W. J. Youden Award in Interlaboratory Testing	Nominations: Pam Craven *pamela@amstat.org* Questions: Chih-Ming Wang *jwang@boulder.nist.gov*
March 15, 2011 ASA Waller Education Award	Nominations: Pam Craven *pamela@amstat.org* Questions: June Morita *june@stat.washington.edu*
April 1, 2011 ASA Gertrude M. Cox Scholarship	Pam Craven *pamela@amstat.org*
April 1, 2011 ASA Outstanding Statistical Application Award	Nominations: Pam Craven *pamela@amstat.org* Questions: Petrutza C. Caragea *pcaragea@iastate.edu*
April 1, 2011 ASA Edward C. Bryant Scholarship	Nominations: Pam Craven *pamela@amstat.org* Questions: Kimberly S. Weems *weems@stat.ncsu.edu*
April 1, 2011 ASA Excellence in Statistical Reporting Award	Nominations: Pam Craven *pamela@amstat.org* Questions: Denise A. Lievesley *denise.lievesley@kcl.ac.uk*
April 1, 2011 ASA Samuel S. Wilks Memorial Medal	Nominations: Pam Craven *pamela@amstat.org* Questions: Daniel Zelterman *daniel.zelterman@yale.edu*

be sent in PDF format by January 15, 2011, to Mary E. Thompson, committee chair, at *methomps@uwaterloo.ca*.

George W. Snedecor Award

The George W. Snedecor Award, established in 1976, honors an individual who has been instrumental in the development of statistical theory in biometry. The award is for a noteworthy publication in biometry within three years of the date of the award. Starting in 1991, this award has been given every other year, in odd years, and consists of a plaque and cash award. Nominations of an individual and an associated publication or publications should be sent by January 15, 2011, to Barry I. Graubard, committee chair, at *graubarb@mail.nih.gov*.

Florence Nightingale David Award

The Florence Nightingale David Award is presented biennially to recognize a female statistician who exemplifies the contributions of Florence Nightingale David, an accomplished statistician in combinatorial probability theory and the first recipient of the Elizabeth L. Scott Award. The criteria for the award are excellence as a role model for women; excellence in statistical research; leadership of multidisciplinary collaborative groups; statistics education; and service to the profession. The award was established in 2001 and is sponsored jointly by COPSS and the Caucus for Women in Statistics. No member of the award committee or officer of the Caucus of Women in Statistics is eligible to receive the award during his or her term of service. Eligible nominations shall be based on a nomination letter, letters of support, curriculum vitae, and other appropriate documentation as requested by the award committee. Nominations should be sent by January 15, 2011, to Alice S. Whittemore, committee chair, at *alicesw@stanford.edu*.

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

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Biometrics

Business Meeting Covers Much at JSM

Edited by Page Moore, Biometrics Section Publications Officer

The section held its annual business committee meeting at JSM 2010 in Vancouver, BC, Canada. Complete minutes of the meeting can be found at *www.bio.ri.ccf.org/Biometrics*.

Section chair, Barry Graubard, called the meeting to order, welcomed members and guests, and introduced members of the executive committee. The minutes of last year's meeting were distributed and accepted.

Graubard introduced James Cochran of Louisiana Tech University, who gave a lively presentation about international work being done by Statistics without Borders. He noted that a key ingredient to being successful in this kind of work is an innate intellectual curiosity, and he encouraged Biometrics Section members to pursue their interests in this direction.

Mike Daniels noted that the Vancouver meeting was the third-largest JSM in terms of attendance. He also gave a report from the Council of Sections on focus areas for the ASA leadership. Details about the algorithm used to allocate invited sessions were mentioned, and feedback was requested from sections about how to get young people more involved in the ASA. There was follow-up discussion about the section cosponsoring conferences, which led to consensus for having the section leadership explore such possibilities.

Thanks were expressed to Hormuzd Katki for his efforts on the JSM 2010 program. Graubard reported for Katki on the enormous task of organizing 399 abstracts into sessions. It was mentioned that the section's executive committee approved a modest budget for next year's program chair to host a gathering, such as a pizza party, that would bring in others to share the workload.

Jerry Heatley reported on the continuing education program. Frank Harrell's short course, "Regression Modeling Strategies" sold out and is expected to generate roughly $4,700 for the section.

Tianxi Cai spoke about the JSM 2011 program. The section will sponsor four invited sessions and be able to participate in the invited session competition. Anyone with invited session proposals should submit them to Cai soon. Also, there will be drop-down menus with categories available for people to self-classify their submissions. This is expected to ease grouping submissions into sessions. It also was noted that anyone with continuing education course ideas should submit them soon to Annie Qu, incoming section continuing education chair.

Graubard gave a heart-felt presentation on David Byar, after whom the section's young investigator award is named. Byar started with medical training, but recognized early in his career the importance of statistics. In addition to his contributions to biostatistical methods in cancer research, he had a great gift for identifying talented individuals and inspiring them to greater heights, which he exhibited in multiple leadership roles at the National Cancer Institute. The slides from Graubard's presentation will be available at *www.bio.ri.ccf.org/Biometrics*.

Past section chair, Dan Heitjan, introduced X. Jessie Jeng of the University of Pennsylvania as the winner of the 2010 David P. Byar Young Investigator Award and Jaeun Choi of The University of North Carolina, Eunhee Kim of Brown University, and Elif F. Acar of the University of Toronto as recipients of the Biometrics Section travel awards. It also was noted that historical information about previous David P. Byar Young Investigator Award winners will be posted on the section's website.

Tom Belin reported that the section is in strong financial shape, having started the year with a fund balance of $36,768.95 and having a current fund balance of $36,606.00. One key contribution to the section's financial health is last year's continuing education program revenue, which netted the section more than $10,000. It is anticipated that this year's continuing education revenue will be strong, as well. Also, section dues were increased last year from $3 to $5 for regular members. The executive committee confirmed this year that student dues would remain at $3. It was noted that there were no expenses last year from the section's strategic initiative program due to a lack of applications. Members interested in pursuing strategic initiatives were encouraged to submit ideas.

Graubard explained that, for the 2010 Biometrics Section officers election, there was supposed to have been two candidates running for representative on the Council of Sections, but this was mistakenly not done. The section will hold a special election by email in the fall to elect a representative for 2011–2013.

Call for Proposals

The section invites applications for funding to support projects developing innovative outreach projects focused on enhancing awareness of biostatistics among quantitatively talented U.S. students. Of particular interest are projects that will encourage students to pursue advanced training in biostatistics. Funding for up to four projects is anticipated, with total funding of up to $3,000 per project.

A three-page application is due October 30 in the following format:

Title

Objectives and Specific Aims

Background, Significance, and/or Rationale

Design and Methods

Budget

Expenditures for supplies, domestic travel when necessary to carry out the project, and cost of computer time are allowed; however, expenditures are not allowed for secretarial/administrative personnel, tuition, foreign travel, and honoraria and travel expenses for visiting lecturers to the investigator's home institution. A project period with start date no earlier than December 1 and ending no later than December 31, 2011, also should be specified.

Applications should be submitted electronically to the Strategic Initiatives Subcommittee chair, Roslyn Stone, at *roslyn@pitt.edu*. All investigators will be expected to submit a brief report to the subcommittee chair at the conclusion of the project.

Byar and Travel Awards

Do you know a young investigator who is planning to submit an abstract for the 2011 Joint Statistical Meetings? If so, you might mention that the ASA Biometrics Section is seeking applications for the 2011 David P. Byar Young Investigator Award. This annual award is given to a young investigator for best emerging work to be presented during JSM. The award commemorates the late David Byar, a biostatistician who made significant contributions to the development and application of statistical methods and was esteemed as an exceptional mentor during his career at the National Cancer Institute. The winner will receive a $1,500 award. Additionally, the section may provide travel awards to the authors of other outstanding papers submitted to the competition.

Applicants must have held a doctorate in statistics, biostatistics, or a related quantitative field for three or fewer years as of April 1 of the current year or be enrolled as a doctoral student in statistics or biostatistics and in active pursuit of a doctoral degree. They also must be current members of the ASA Biometrics Section and first author of the paper submitted. (Membership in the ASA does not automatically confer section membership. Applicants may join at the time of submission for a $5 annual membership fee [$3 for students].) The paper may be submitted to a journal or under review, but may not have appeared online or in print at the time of the application or have been accepted for publication as of January 1, 2011. Also, the paper may not have been submitted to any other ASA section student/young investigator award competition. Finally, applicants must be scheduled to present the submitted paper at JSM 2011 in Miami, Florida, as a talk or poster presentation.

Applicants must submit their JSM abstracts to the Biometrics Section in addition to submitting them to the ASA by February 1, 2011. They also must contact Cai, 2011 JSM section program chair, at *tcai@hsph.harvard.edu* prior to the abstract deadline. The section will organize a series of topic-contributed sessions to highlight the submitted papers.

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

The 2011 awards committee is composed of the current and past section chairs and chair-elect, as well as three individuals appointed by the section chairs. More information can be found on the section website, easily accessed by clicking on the "Section" tab at the top of *www.amstat.org*. ■

Statistics in Epidemiology

Section Congratulates Award Winners

Jing Cheng, Publications Officer

The Statistics in Epidemiology (SIE) section congratulates Alice S. Whittemore of Stanford University for winning the 2010 Nathan Mantel Lifetime Achievement Award for her lifetime contributions at the intersection of statistical science and epidemiology.

The section also congratulates the following winners of the 2010 SIE Young Investigator Award:

Samsiddhi Bhattacharjee
National Cancer Institute

Sandy Eckel
University of Southern California

Gang Han
H. Lee Moffitt Cancer Center

Xiangrong Kong
The Johns Hopkins University

Yan Ma
Weill Cornell Medical College

Layla Parast
Harvard University

Nicholas Reich
The Johns Hopkins University

Sherri Rose
University of California, Berkeley

Min Tang
University of Maryland

Yingqi Zhao
The University of North Carolina at Chapel Hill

Hong Zhu
The Johns Hopkins University

Details for the 2011 Nathan Mantel and young investigator awards competitions will be announced in December. ■

Biopharmaceutical

Award Winners Announced

The Biopharmaceutical Section held its JSM poster competition during its mixer at the 2010 Joint Statistical Meeting in Vancouver, British Columbia. Three prizes were awarded to the following presenters:

First Place ($1,000)

Alice Dragomir, Jean-François Angers, and Sylvie Perreault of the University of Montréal; Jean-Eric Tarride of McMaster University; and Ridha Joober of McGill University for "Development and Validation of a Microsimulation Monte-Carlo Markov Model for People with Schizophrenia"

Second Place ($600)

Kelly Zou of Pfizer Inc. for "Adjusted Cumulative Distribution Function and Effect Size Methods for Stratified Two-Sample Comparisons"

Third Place ($400)

Michael T. Gaffney, Martin O. Carlsson, and Kelly H. Zou of Pfizer Inc. for "Harmonic Regression Analysis of Periodic Time Series Data from Clinical Trials"

Those planning to present a poster at JSM 2011 should consider participating in the poster competition, which is open to all JSM attendees. Authors who compete for the poster awards cannot also compete for the student paper awards. Three awards with cash prizes of $1,000, $600, and $400 will be given for first, second, and third place, respectively.

To participate, submit an abstract to the ASA with the Biopharmaceutical Section as the sponsor by February 1, 2011. Then, submit your poster to Yongming Qu, chair for the poster awards, at *quyo@lilly.com* by May 1, 2011.

Each poster will be reviewed by two reviewers and an average score will be assigned; posters with the highest scores will be the winners.

Ribbons will be placed on the corner of the winning posters during the poster presentation, and winners will be announced and given certificates at the Biopharmaceutical Section mixer.

In addition to the poster competition, the Biopharmaceutical Section also held a student paper award competition. Eight papers were submitted, and two prizes were awarded to the following presenters:

First Place ($1,000)

Sihai Dave Zhao of Harvard School of Public Health for "Principled Sure Independence Screening for Cox Models with Ultra-High-Dimensional Covariates"

Second Place ($600)

Yoonjin Cho of North Carolina State University for "Improving the Efficiency of Testing Equality of Predictive Values Using Auxiliary Covariates"

Student paper awards are presented annually at the Biopharmaceutical Section open business meeting during JSM. Student research papers with statistical content applicable to the biopharmaceutical arena are eligible for consideration. In addition to submitting a paper for judging, students must submit an abstract of the work as a contributed paper for JSM. The categories for scoring are clarity, contribution to statistics, and biopharmaceutical applicability. The deadline for next year's competition is March 31, 2011. ■

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Business and Economic Statistics

Focus is on Sessions, Awards at JSM

Although attendance at JSM 2010 in Vancouver was expected to be less than JSM 2009 in Washington, DC, the Business and Economics Statistics Section was active. The section sponsored four invited sessions and many more topic-contributed sessions, which were well-attended, as well as contributed, poster, and panel sessions. Topics included Bayesian econometrics, forecasting, seasonal adjustment, benchmarking, and volatility estimation.

The section also announced several awards, most of which included travel support or a cash prize. The 2010 Zellner Thesis award—sponsored by the section, *Journal of Business & Economic Statistics* (*JBES*), and Thomson Reuters—was shared by Franscesco Bianchi of Princeton and Roopesh Ranjan of the University of Washington. The award is given annually for the best PhD thesis dealing with an applied problem in business and economic statistics. A portion of the winning thesis is eligible for publication in *JBES*.

Bianchi is an assistant professor in the economics department at Duke University, while Ranjan is employed in the Computing and Decision Sciences Laboratory at GE Global Research, Bangalore, India.

The Julius Shiskin award, which recognizes original and important contributions to economic statistics, was presented to Dale Jorgensen of Harvard University for his contributions to the measurement of productivity, innovation, capital, human capital, and poverty and for his leadership in the integration of the U.S. National Accounts.

Finally, the winners of the student travel awards were Ghanem Dalia of the University of California, San Diego; Na Cai of North Carolina State University; and Xingye Qiao of The University of North Carolina. Honorable mentions went to Sungil Kim of Georgia Institute of Technology, Melinda Thielbar of North Carolina State University, and Shan Hu of the University of Connecticut.

More information about these awards can be found at *www.amstat.org/sections/bus_econ/index.html*.

The section also sponsored an economic outlook luncheon, at which Hal Varian of Google discussed Google's data analytic tools. The event had high attendance, and section members are encouraged to continue their support of these informal lectures at future meetings.

Those interested in organizing topic-contributed sessions for JSM 2011 in Miami, Florida, are encouraged to contact potential speakers now and communicate the proposal to Bonnie Ray, 2011 Business and Economic Statistics Section program chair. ■

Zellner Thesis Award Nominations Needed

The Business and Economic Statistics Section announces the competition for the 2011 Zellner Thesis Award. The award is named for Arnold Zellner, a pioneer in econometrics, and given for the best PhD thesis dealing with an applied problem in business and economic statistics. It is intended to recognize outstanding work by promising young researchers in the field. The winner of the award, which consists of a $1,500 prize, will be announced at JSM 2011 in Miami, Florida, and a portion of the winning thesis is eligible for publication in the *Journal of Business & Economic Statistics* (*JBES*). The deadline to submit a thesis is March 31, 2011.

Topics

The range of topics includes econometric methods, statistical problems in forecasting, seasonal adjustment, data quality, empirical studies including finance, industrial organization, health, labor, general micro and macroeconomic analysis, and policy evaluations. Theses in the areas of computation, simulation, and graphics are eligible as long as the research is of direct interest to applied workers.

Criteria

Review standards place substantial weight on research with significant results, high-quality methodological work, substantial empirical content, and good exposition. The research should be of immediate and practical value for applications in business and economic statistics.

Eligibility

Theses are eligible for the Zellner award if they have been defended in the preceding two years, January 2009 to December 2010, and have not previously been considered for the award.

Awards Committee

The editors of *JBES* convene the awards committee in consultation with the current chair of the Business and Economic Statistics Section. Members of the committee are selected from the section membership and editorial board of *JBES*.

Submission Procedure

Entrants must supply a URL from which a PDF copy of the thesis can be downloaded. After posting a thesis, entrants should send an email with their name and contact information, the date and institution of their defended thesis, and the URL to the Zellner Awards Committee at *jbes-asa@hotmail.com*. Entrants will receive confirmation that their submission was received.

More information about the Zellner Award can be found at *www.amstat.org/sections/bus_econ/zellner.html*.

Nonparametric Statistics

Best Papers Chosen at JSM

Members of the Section on Nonparametric Statistics presented the *Journal of Nonparametric Statistics* Best Paper Award in 2009 and Student Paper Award during the Joint Statistical Meetings in August.

Erich L. Lehmann received the *Journal of Nonparametric Statistics* Best Paper Award in 2009 for his discussion paper, "Parametric versus Nonparametrics: Two Alternative Methodologies." The award contains a cash prize of $771, which was given to the Erich L. Lehmann Foundation, as Lehmann passed away in November 2009. Juliet Shaffer, Lehmann's widow, attended the award ceremony.

The goal of the Student Paper Award is to foster research and encourage students to present their research results at the Joint Statistical Meetings. This year, six finalists were chosen based on the papers they submitted, and these papers were presented in a contributed session. Committee members rated the talks, and the final scores were based on the oral presentations and prior review score.

Kai Ding of The University of North Carolina at Chapel Hill, Yeojin Chung of Penn State, and Subhadeep Mukhopadhyay of Texas A&M University were chosen as winners of the Student Paper Award. Yanling Hu of the University of Kentucky, Runlong Tang of the University of Michigan, and Xiaoru Wu of Columbia University were named honorable mentions.

The winners received $250 and a one-year membership in the Nonparametric Statistics Section; the honorable mentions received a certificate. ■

Award Committees

Journal of Nonparametric Statistics Best Paper Award

Yufeng Liu, The University of North Carolina at Chapel Hill

Art Owen, Stanford University

Jane-Ling Wang, University of California, Davis

Suojin Wang, Texas A&M University

Student Paper Award

Lan Wang (chair), University of Minnesota

Arne Bathke, University of Kentucky

Yolanda Munoz Maldonado, Michigan Technological University

Jing Qin, National Institutes of Health

Bodhisattva Sen, Columbia University

Rui Song, Colorado State University

Fang Yao, University of Toronto

Donglin Zeng, The University of North Carolina at Chapel Hill

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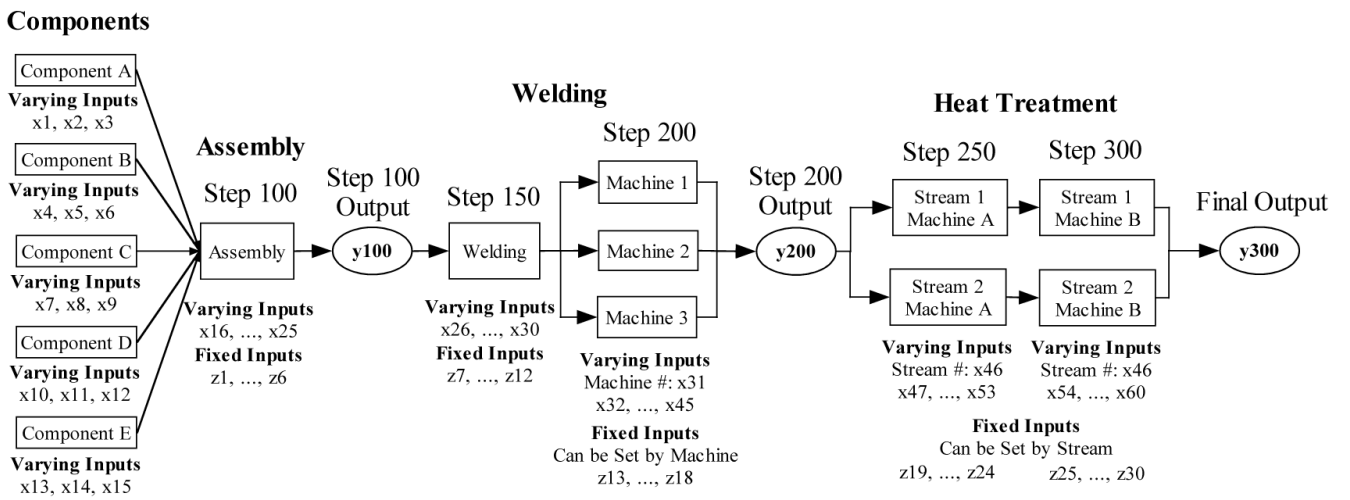
Quality and Productivity

Student Competition: Can You Improve a Process?

Mark Bailey of SAS Institute, Q&P Chair



Watfactory process map

The Section on Quality and Productivity (Q&P) is pleased to announce a student team competition. The goal of the contest is to enhance the statistical expertise of students who are interested in a challenge and want to apply their training in statistical thinking and process improvement to a realistic situation. Students who compete will have the opportunity to develop their statistical talents and increase their marketability in the work force.

With full support from the Q&P committee, Stefan Steiner from the University of Waterloo is coordinating this competition. There is a simulated manufacturing process called "Watfactory" that allows users to plan and execute empirical investigations of many types. The process map captures some of the available knowledge, including the 60 varying inputs (x1, …, x60) that drive the output variation and the 30 normally fixed inputs (z1, …, z30) that can be changed to improve the process. You also can implement various control schemes and inspection points. There are costs associated with each study and each change to the process. Each team will start with an initial virtual budget of $10,000. Currently, there is too much variation in the critical final output y300. The object is to reduce the output variation with minimal expense.

We are looking for teams (two to five students with a faculty mentor) who are learning or are knowledgeable about Six Sigma or other process improvement algorithms, who enjoy a challenge and competition, and who want to apply statistical thinking and methods to a realistic problem.

More background information about the process and a guest login (helpful for exploring how Watfactory works, but not the same version of the process as used in the competition) are provided at *www.student.math.uwaterloo.ca/~stat435/login.htm*.

The winning team will present its results and methods during a special topic-contributed session at the Joint Statistical Meetings July 30 to August 4, 2011, in Miami Beach, Florida. There is a $500 prize for the winning entry, plus up to $1,000 per student (three students maximum) for travel expenses to attend JSM.

Faculty mentors should email Steiner at *shsteiner@uwaterloo.ca* to register teams, acquire access to the contest version of the process, and get more information about the contest rules and time lines.

To be considered for the prize, each team must register no later than December 31 and submit a final report by March 15, 2011. The report must describe the proposed solution to the problem, how well it works, how much it costs, and, most importantly, the steps taken and the logic behind the steps in reaching the solution. ■

Statistics in Defense and National Security

Priebe Wins Achievement Award

The Statistics in Defense and National Security (SDNS) Distinguished Achievement Award was presented to Carey E. Priebe during the section's business meeting and mixer at JSM 2010 in Vancouver, British Columbia. Priebe was given the award for outstanding leadership and accomplishments on research projects for the Navy, Army, Air Force, DARPA, and the intelligence community. His prodigious contributions have resulted in solutions to problems at the forefront of both statistics and defense. Specifically noteworthy is his seminal theoretical work on random attributed graphs. Along with his numerous contributions in computer security, methods for target detection and classification, and image segmentation, he is the inventor of a tool for discovering latent classes in high-dimensional data known as the class-cover catch digraph.

Priebe is a full professor in the Whiting School of Engineering at The Johns Hopkins University and a research professor in the National Security Institute at the Naval Postgraduate School. In 2008, he was named one of six national security science and engineering faculty fellows to conduct research on fusion and interference from multiple and disparate data sources.

Priebe earned a BS in mathematics from Purdue University in 1984, MS in computer science from San Diego State University, and PhD in information technology (computational statistics) from George Mason University in 1993. From 1985 to 1994, he was a mathematician and scientist in the U.S. Navy research and development laboratory system. Since 1994, Priebe has been a professor at The Johns Hopkins University, holding joint appointments in the computer science and electrical and computer engineering departments, Center for Imaging Science, Human Language Technology Center of Excellence, and Whitaker Biomedical Engineering Institute.

Priebe is a past president of the Interface Foundation of North America; a past chair of the ASA Section on Statistical Computing; a past vice president of the International Association for Statistical Computing; and a member of several editorial boards. He is a senior member of the IEEE, a lifetime member of the Institute of Mathematical Statistics, an elected member of the International Statistical Institute, and a Fellow of the ASA. ■

Statistics and the Environment

Section Congratulates Award Winners

Jun Zhu, ENVR Publications Chair

During this year's JSM in Vancouver, Section Chair Dale Zimmerman presented several awards during the ENVR business meeting/mixer.

Student Paper Competition

David Dail, a PhD student in statistics at Oregon State University, won the student paper competition with "Models for Estimating Population Size from Repeated Counts of an Open Population"

Ying Sun, a PhD student in statistics at Texas A&M University, was the runner-up for "Functional Boxplots for Complex Space-Time Data Visualization"

JSM Presentation Award

Joel Reynolds, a regional biometrician at U.S. Fish and Wildlife Service in Anchorage, Alaska, won the 2009 JSM Presentation Award for "Effective and Efficient Monitoring of Steller's Eiders at Izembek Lagoon, Alaska: Barriers and Pitfalls."

Sandrah Eckel is the winner of ENVR's 2010 JSM Presentation Award for "Modification by Frailty Status of the Respiratory Health Effect of Air Pollution in Older Adults." Eckel is a postdoc in the division of biostatistics, department of preventive medicine, at the Keck School of Medicine, University of Southern California. She earned her PhD in biostatistics from The Johns Hopkins University in 2009. This award will be presented to Eckel at JSM 2011 in Miami Beach, Florida.

Distinguished Achievement Award

Marc G. Genton of Texas A&M University won the section's Distinguished Achievement Award for his theoretical, methodological, and computational contributions to robust statistics; spatial and spatiotemporal statistics; time series; and multivariate analysis with diverse applications, including wildfires, wind energy, and precipitation fields, as well as his contributions to educating the next generation of environmental statisticians.

Victor De Oliveira of The University of Texas at San Antonio won the Distinguished Achievement Award for his contributions to the spatial analysis of environmental data, including modeling and prediction of non-Gaussian random fields, censored data, and Bayesian geostatistics, as well as his service to the profession. ■

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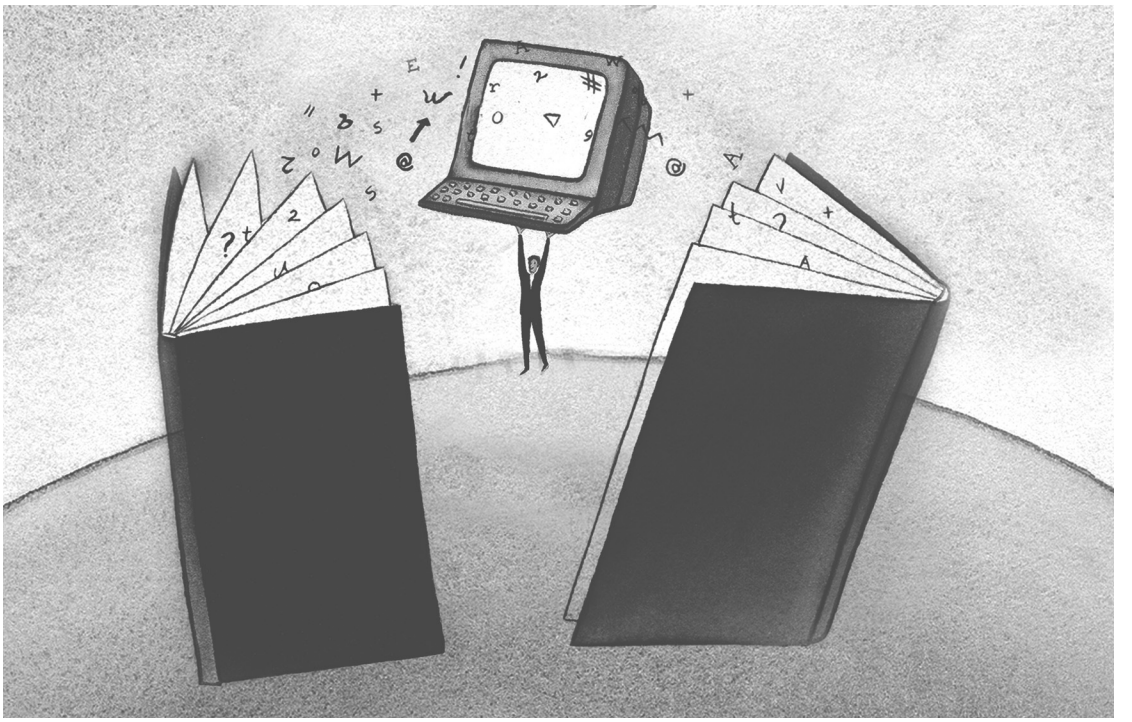

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* Indicates events sponsored by the American Statistical Association or one of its sections, chapters, or committees

›› Indicates events posted since the previous issue

October

22—Symposium in Honor of Stephen Lagakos, Boston, Massachusetts
This one-day symposium is in honor of Stephen Lagakos, who died tragically in an accident in October of 2009. Robert Gallo will be the keynote speaker. A dinner will follow the symposium, at which Harvey Fineberg will be the guest speaker. The symposium will be free of charge, and all are invited. For more information, visit *www.hsph.harvard.edu/departments/biostatistics* or contact Leah Segal, Department of Biostatistics, 655 Huntington Ave., Bldg. 2, Boston, MA 02115; (617) 432-7779, *lsegal@hsph.harvard.edu*.

››25–28—Health Policy Orientation, Washington, DC
The annual health policy orientation gives participants an in-depth understanding of the formal and informal processes shaping the nation's health policy agenda. With expert faculty members, group discussions, hands-on tutorials, and a congressional site visit, participants master the fundamentals of policy development and implementation and experience the Washington health policy environment with insiders. Space is limited to 50 participants for a nearly one-to-one ratio of participants to faculty. For more information, visit *www.academyhealth.org/orientation* or contact Anna LaFayette, 1150 17th St. NW, Suite 600, Washington, DC 20036; (202) 292-6700; *orientation@academyhealth.org*.

››29–30—SAMSI Two-Day Undergraduate Workshop, Research Triangle Park, North Carolina
This workshop for undergraduate students will focus on one of the two major programs SAMSI is holding this year. For details, visit *www.samsi.info/workshops/index.shtml* or contact Jamie Nunnelly, 19 T.W. Alexander Drive, RTP, NC 27709; (919) 685-9300; *nunnelly@niss.org*.

November

››8–10—SAMSI AOD Interface Workshop, Research Triangle Park, North Carolina
For more information, visit *www.samsi.info/workshops/index.shtml* or contact Jamie Nunnelly, 19 T.W. Alexander Drive, RTP, NC 27709; (919) 685-9300; *nunnelly@niss.org*.

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*.

››11–13—5th Scientific Meeting ISLA Data Mining and Business Intelligence, Santarém, Portugal
This meeting will focus on new methodologies for data mining and business intelligence, specifically new graphical methods, graph-based data mining, and text mining. All contributions with new methodologies and software that help summarize, synthesize, visualize, and interpret mountains of data are welcome. Also welcome are applications of existing methodologies to interesting cases. For more information, visit *www.unisla.pt/ecisla10* or contact Valter Vairinhos, Largo Candidio dos Reis (Antigo Hospital), Santarém, International 2000-241, Portugal; 351 918264755; *valter.vairinhos@sapo.pt*.

››15–16—2010 PQG Conference - Putting It All Together: Integrating Genetic, Epigenetic, Genomic, and Complex Phenotypic Data, Boston, Massachusetts
Data sources that can be used to shed light onto the mechanics of complex diseases and phenotypes have become more available to the scientific community. While technology development is rapid, analysis strategies for their integration lag. This meeting aims to bring experts together from the different technologies and their analysis strategies to foster integrative approaches to analysis. For details, visit *www.hsph.harvard.edu/research/pqg-conference-2010* or contact Shaina Andelman, 655 Huntington Ave., Building 2, 4th Floor, Boston, MA 02115; (617) 432-7449; *sandelma@hsph.harvard.edu*.

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@tibs.org*.

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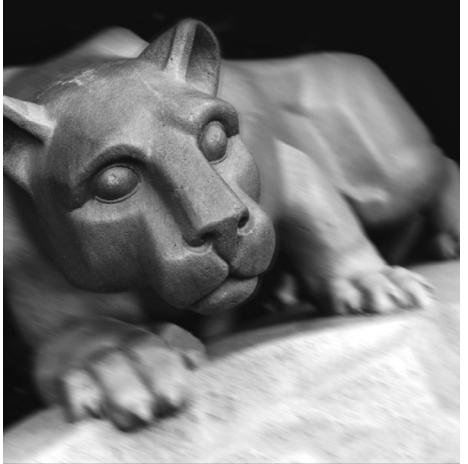

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***5–10—66th Annual Deming Conference on Applied Statistics, Atlantic City, New Jersey**
This conference will focus on recent developments in statistical methodologies in 12 three-hour tutorials. Attendees will receive bound proceedings of the presentations. 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 Australian and international statisticians to discuss new work. The theme for the 2010 conference, "Statistics in the West: Understanding Our World," provides opportunities for presentations on a range of topics. For more information, visit *www.statsoc.org.au* or contact Promaco Conventions, Unit 10, 22 Parry Ave., Bateman, International 6150, Australia; +61 8 9332 2900; *promaco@promaco.com.au*.

››13–17—ESF-COST High-Level Research Conference on Extreme Environmental Events, Cambridge, United Kingdom
ESF and COST will gather leading scientists and young researchers to discuss extreme environmental events and the uncertainties inherent in their understanding. The goal of this event is to stimulate interdisciplinary research collaboration among climatologists, meteorologists, modelers, statisticians, and other environmental scientists and to promote scientific excellence in these fields. For more information, visit *www.esf.org/conferences/10345* or contact Antje Teegler, Avenue Louise 149, Brussels, International 1050, Belgium; *ateegler@esf.org*.

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/ama/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. 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*.

››27–28—International Conference on Recent Developments in Statistics, Applied Econometrics, and Forecasting, Allahabad, India
Conference topics include applied econometrics, time series analysis, forecasting, financial modeling, regression analysis, and applied statistics. For more information, contact Kuldeep Kumar, Bond Business

School, Gold Coast, International 4229, Australia; 61755953305; *kkumar@bond.edu.au*.

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/mcmski/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*.

››26–28—Fourth Annual Bayesian Biostatistics Conference, Houston, Texas
Current and prospective users of Bayesian biostatistics are invited to join others with similar interests. Registration fees will be modest. For more information, visit *biostatistics.mdanderson.org/BBC2011* or contact Lydia Davis, 1515 Holcombe Blvd., Unit 1409, Houston, TX 77030; (713) 794-4142; *lbdavis@mdanderson.org*.

February

››2–5—Workshop on Bayesian Inference for Latent Gaussian Models with Applications, Zurich, Switzerland
This workshop brings together researchers who develop and apply Bayesian inference. One methodological focus is on model computation, using either classical MCMC techniques or more recent deterministic approaches such as integrated nested Laplace approximations (INLA). A second theme is model uncertainty, ranging from model criticism to model selection and model averaging. Havard Rue will give an INLA tutorial on the first day. For more information, visit *www.math.uzh.ch/bilgm11* or contact Reinhard Furrer, Institute of Mathematics, Zurich, International 8057, Switzerland; +41-44-63-55843; *reinhard.furrer@math.uzh.ch*.

››28–3/3—Second International Symposium on Biopharmaceutical Statistics, Berlin, Germany
This symposium will bring together worldwide statisticians and related professionals who are involved in quantitative biopharmaceutical research, development and regulations to share and exchange information, experience, and research findings. The goal is to improve and promote the harmonization of statistical practice. A series of pre-conference half-day short courses will be given by experts in their respective fields. For more information, visit *www.isBioStat.org* or contact Richard Vonk at *richardus.vonk@bayerhealthcare.com* or Amit Bhattacharyya at *amit.bhattacharyya@gsk.com*.

March

››8–10—Challenges in Statistics and Operations Research (CSOR2011), Kuwait City, Kuwait
This conference will bring together worldwide prominent specialists in probability, statistics, and operations research. For more information, visit *conf.stat.kuniv.edu* or contact Mohammed Saleh, Kuwait, Khaldiya, Kuwait University, Faculty of Science, Dept. STAT&O.R., Kuwait City, International P.O. Box 5969 SAFAT 13060, Kuwait; +96555199322; *mfathy@stat.kuniv.edu*.

16–18—IAENG International Conference on Data Mining and Applications 2011, Hong Kong, China
For more information, visit *www.iaeng.org/IMECS2011/ICDMA2011.html* or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK, Hong Kong; (852) 3169-3427; *imecs@iaeng.org*.

April

››11–13—Third International Biometrics Society Channel Network Conference, Bordeaux, France
Every two years, the International Biometrics Society (IBS) Channel Network Conference brings together biometricians from Belgium, France, Great Britain/Ireland, and The Netherlands. This conference will feature Simon Tavaré as the keynote speaker and include short courses and invited and contributed sessions. For more information, visit *www.ibs-channel-bordeaux2011.fr* or contact Daniel Commenges, University of Bordeaux, Bordeaux, International 33000, France; 335 57 5713 93; *ibschannel@isped.u-bordeaux2.fr*.

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; *maggarwl@memphis.edu*.

››21–25—ISPOR 16th Annual International Meeting, Baltimore, Maryland
For more information, visit *www.ispor.org/Events/Index.aspx?eventId=35* or contact Sue Capon, 3100 Princeton Pike, Building 3, Suite E, Lawrenceville, NJ 08648; (800) 992-0643; *scapon@ispor.org*.

June

››2–3—Conference on the Impact of Religion on the Economy and Business Management, New York, New York
Call for papers. Speaker slots are limited, so abstracts (fewer than 200 words) should be sent as soon as possible to *vinod@fordham.edu*. Interdisciplinary and empirical papers using new statistical methods are welcome. Completed papers are due by April 1, 2011. Selected papers dealing with Hinduism will be published by Oxford University. For more information, visit *www.fordham.edu/economics/vinod/Conf2011.pdf* or contact Hrishikesh Vinod, Fordham University, 113 West 60th St., New York, NY 10023; (718) 817-4065.

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**
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*.

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*. ■

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

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

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

Rates: $320 for nonprofit organizations (with proof of nonprofit status), $475 for all others. Member discounts are not given. A URL link may be included in display ads in the online version of *Amstat News* for an additional $100. Display advertising rates are at *www.amstat.org/ads.*

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

Also look for job ads on the ASA web site at *www.amstat.org/jobweb.*

California

■ Stanford University, Junior Faculty Appointment in Statistics. Assistant professor, tenure track, in either applied or theoretical statistics. See *stat.stanford.edu* for more information. Send application letter, CV, graduate transcripts, three letters of recommendation and at most one reprint to: Faculty Search Committee, Department of Statistics, Stanford University, 390 Serra Mall, Stanford, CA 94305-4065. Applications received by January 10, 2011, are guaranteed consideration. Stanford University is an equal opportunity employer and is committed to increasing the diversity of its faculty. It welcomes nominations of, and applications from, women and members of minority groups, as well as others who would bring additional dimensions to the university's research and teaching missions.

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Search Committee
Division of Biostatistics and Bioinformatics
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Baltimore, MD, 21205-2013
onc_bio_search@jhmi.edu

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Indiana

■ Roche Diagnostics is seeking a senior applied mathematician/statistician. This R&D position involves data analysis, software or algorithm development, and analysis of new technologies and prototype instruments to assess feasibility, and continue support through development. Requires data analysis for qualitative and quantitative information using various mathematical models and tools. For details regarding the position, see Job. ID. 3840250836072010081 4 at *http://careers.roche.com*. Apply online with pertinent personal information. AA/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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Dr. Hsin-Cheng Huang
Chair of the Search Committee
Institute of Statistical Science, Academia Sinica
128 Sec. 2 Academia Road, Taipei 11529,
Taiwan, R.O.C.
Fax: +886-2-27831523
E-mail: hchuang@stat.sinica.edu.tw

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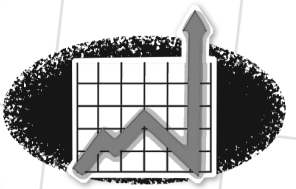

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- U.S. citizenship
- Bachelor's, Master's or Ph.D with at least 24 semester hours in math and statistics (see website for more specifics on required coursework)

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

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

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

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

Michigan

■ Department of Statistics and Probability, Michigan State University. Assistant professor tenure-track position beginning 8/16/11. Position requires PhD in statistics or probability, strong research and teaching. Submit résumé, teaching and research evidence, three reference letters to: Search Committee, A415 Wells Hall, East Lansing, MI 48824-1027 or *sparks@stt.msu.edu*. Review begins 12/15/10 and continues until filled. Additional information at *www.stt.msu.edu*. Michigan State University is an AA/EOE.

Minnesota

■ University of St. Thomas, St. Paul, MN, Department of Computer & Information Sciences invites applicants for a tenure-track faculty position starting fall 2011 to teach introductory statistics courses at the undergraduate level. Qualifications: PhD in the area of applied statistics, quantitative methodologies, or equivalent is preferred; ABD will be considered. For full position information and application instructions, visit: *http://jobs.stthomas.edu*. AA/EOE.

■ Lead and manage world class Sensory, Product Guidance Research & Statistics group to help R&D deliver innovative product, process and package design. Develop, leverage and implement best practices in sensory, guidance research and experimental methodologies. Train & guide R&D developers in systematic development approach utilizing sound

experimental techniques, DOE, and other statistical methods. MS food science or psychology, 10 yrs. sensory, 5 yrs. leadership. *jmbearth@landolakes.com. www.landolakes.jobs.* Land O' Lakes is an AA/EOE.

Missouri

■ Tenure-track assistant professor position in the department of mathematics & statistics, Missouri University of Science and Technology, beginning fall 2011. Strong research & teaching potential, applied interests, and PhD in statistics/biostatistics by 8/15/2011 required. Fundable research area is a plus. Go to *http://hr.mst.edu/employment/math_statistics.html*, which provides details about the application procedure and job requirements. Review begins 12/1/2010 and will continue until filled. Missouri S&T is an AA/EEO institution. Women, minorities, and persons with disabilities are encouraged to apply. Missouri S&T participates in E-Verify. For more information on E-Verify, please contact DHS at (888) 464-4218.

NORC at the UNIVERSITY OF CHICAGO
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St. Jude Children's Research Hospital
ALSAC • Danny Thomas, Founder
Finding cures. Saving children.

FACULTY POSITION
Assistant Or Associate Member

The Department of Biostatistics at St. Jude Children's Research Hospital (www.stjude.org/biostatistics) invites applications for a faculty position at the Assistant or Associate Member (Professor) level depending upon qualifications. Candidates must have a doctorate in biostatistics or statistics and a record of peer-reviewed publications showing evidence of (for Assistant Member, a potential of) productive methodological research. Preference will be given to candidates with statistical research interests in Systems Biology, Statistical Genomics or Bioinformatics and a commitment to collaborative research with clinical and laboratory investigators. Continued independent statistical research motivated by biomedical collaborations is expected of the successful applicant. The Department staff includes twelve faculty positions, two postdoctoral fellows, sixteen master's level biostatisticians, six computer scientists and support staff. Applicants must demonstrate excellent oral and written communications skills and be proficient in computing.

Compensation is very competitive and commensurate with experience. Send letter of interest, CV, and have three reference letters sent to: james.boyett@stjude.org or Dr. James M. Boyett, Endowed Chair, Dept. of Biostatistics, St. Jude Children's Research Hospital, 262 Danny Thomas Place, Memphis, TN 38105-3678.

St. Jude is an Equal Opportunity Employer and a Drug-Free Workplace. EE/AAE

www.stjude.org

Department of Biostatistics, University of Michigan
Faculty Positions in Bioinformatics and Statistical Genetics

The Department of Biostatistics at the University of Michigan is seeking applicants for two open rank or tenure-track positions, and research faculty position to begin in Fall 2011 or earlier in the areas of Bioinformatics and Statistical Genetics. The Department seeks outstanding individuals with interests in the development of statistical methods, collaborative scientific research, and teaching.

The Department of Biostatistics has 29 faculty members and over 120 full time PhD and Master students. The Department is involved in cutting edge methodological research and scientific investigation in many areas of biomedical and public health research. The Department has close links with the Department of Statistics, the Institute of Social Research, the Medical School, the Center for Computational Medicine and Bioinformatics, the Center for Statistical Genetics, and the Cancer Center. More information on the department and the open positions can be found at http://www.sph.umich.edu/biostat.

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

Consideration of applications will begin immediately and will continue until the positions are filled. Interested applicants should send a CV, three reference letters, a statement of research interests, and academic transcripts (if a recent graduate) to: Chair of Bioinformatics Search Committee, Dept of Biostatistics, School of Public Health II, University of Michigan 1415 Washington Hgts, Ann Arbor, MI 48109-2029, Tel: (734) 936-0989, Email: StatGen-Bioinform-2011@umich.edu.

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

Division of Cardiology, School of Medicine
Division of Biostatistics, School of Public Health
University of Minnesota

ASSISTANT, ASSOCIATE OR FULL PROFESSOR – MULTIPLE POSITIONS

The Division of Biostatistics, School of Public Health, and the Division of Cardiology, Department of Medicine, at the University of Minnesota are seeking to hire a director and faculty members at the rank of Assistant, Associate and full Professor, non-tenure track, to establish a program in Clinical Statistics, Clinical Trials, and Statistical Genetics. The director of this program will enable and promote a collaborative environment for communication and consultation with investigators and clinicians in the Division of Cardiology and the Lillehei Heart Institute at the University of Minnesota. Applicants must have a PhD in biostatistics or statistics. We are particularly interested in applicants who have interests, training, and/or experience in Clinical Trials – especially early-phase clinical trials – and collaborative research. Experience and/or training in statistical bioinformatics and database design and data conversion and extraction are also desired, but strong applicants in other areas such as statistical genetics, Bayesian or epidemiologic methods, survival analysis, and analysis of longitudinal data or quality-of-life data are welcomed and encouraged to apply. These positions will also provide opportunities for teaching and advising graduate students, trainees, residents, and others both within the Division of Cardiology and the Division of Biostatistics.

The primary appointment(s) would be within the Division of Cardiology's Lillehei Clinical Research Unit, with a joint appointment within the Division of Biostatistics. The Division of Cardiology currently includes 31 faculty members. The Lillehei Heart Institute currently includes 10 basic science faculty members. The Division of Biostatistics currently includes 22 graduate faculty and 65 staff, and offers MS, MPH, and PhD degrees. Current faculty research in statistical methodology includes analysis of spatial and longitudinal data, Bayes and empirical Bayes methods, computer-intensive methods such as Markov chain Monte Carlo, survival analysis, clinical trials design, statistical genetics/genomics, generalized linear models, latent variable models, and categorical data analysis. The Division has an international reputation as the home of the statistical coordinating centers for a number of major clinical trials. Research in the Lillehei Heart Institute and Division of Cardiology encompasses basic science, clinical science, and population science.

Applications received before November 1, 2010, will be considered for a first round of interviews but the positions will remain open until filled. The salary range for these faculty positions will be very competitive and the University of Minnesota offers excellent fringe benefits. These are non-tenure-track contract positions, with the initial period of the contracts set at two years.

Applicants should submit a cover letter, current curriculum vitae, and the names of at least three references on-line at: <*http://employment.umn.edu/applicants/Central?quickFind=88930*>. For questions contact John E. Connett, Professor of Biostatistics and the Search Committee Chair (john-c@umn.edu).

For additional information regarding the Division of Biostatistics, the School of Public Health, and the University, please visit our website at: http://www.sph.umn.edu/biostatistics/.

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

Ohio

■ The Ohio State University Statistics Department invites applications for tenure-track assistant professor position beginning autumn quarter 2011. PhD in statistics/biostatistics, and excellence in teaching and research required. Interest in methodological research with application to biomedical sciences is desirable. Send vitae, three letters, and graduate transcripts to: Shili Lin, Department of Statistics, The Ohio State University, 1958 Neil Ave., Columbus, OH 43210. To build a diverse work force, Ohio State encourages applications from minorities, veterans, women, and individuals with disabilities. Flexible work options available. EEO/AA Employer. Ohio State is an NSF Advance Institution.

Oklahoma

■ Tenure-track assistant professor position (in exceptional cases associate professor may be offered) beginning August 2011. PhD in statistics, demonstrated excellence in teaching and research or evident potential. Review of applications begins 12/13/2010 and continues until position is filled. Send letter, CV, transcripts, and arrange to have three recommendation letters to Chair, Search and Hiring Committee, Statistics Dept., Oklahoma State University, Stillwater, OK 74078-1055. Visit *http://statistics.okstate.edu*. Oklahoma State University is an AA/EEO/E-Verify employer committed to diversity.

Pennsylvania

■ The statistics department at Temple University invites applications for tenure-track faculty positions at all levels. Candidates in any area of statistics must hold a PhD, top-tier publications, proven teaching record, and strong theory/application background. Apply electronically to Sanat Sarkar, *stat.recruting@temple.edu*, with cover letter, CV, evidence of teaching & three recommendation letters. For more information, go to *www.fox.temple.edu/dept/statistics*. Temple University is an equal opportunity/affirmative action employer.

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

Tennessee

■ BioMimetic Therapeutics seeks statistician to join our statistics department and help provide statistical support for all areas of the company: mostly clinical research, but also preclinical research, protein chemistry, validation, quality, data management, and computing. PhD or MS in statistics or equivalent; 5+ years

Williams College
Assistant Professor

The Williams College Department of Mathematics and Statistics invites applications for one tenure-track position in statistics, beginning fall 2011, at the rank of assistant professor (in an exceptional case, a more advanced appointment may be considered). We are seeking a highly qualified candidate who has demonstrated excellence in teaching and research, and who will have a Ph.D. by the time of appointment. This candidate will become the fourth tenure-track statistician in the department, joining a vibrant and active statistics group.

Williams College is a private, residential, highly selective liberal arts college with an undergraduate enrollment of approximately 2,000 students. The teaching load is two courses per 12-week semester and a winter term course every other January. In addition to excellence in teaching, an active and successful research program is expected.

To apply, please send a vita and have three letters of recommendation on teaching and research sent to the Hiring Committee, Department of Mathematics and Statistics, Williams College, 18 Hoxsey Street, Williamstown, MA 01267. Teaching and research statements are also welcome. Evaluations of applications will begin on or after November 15 and will continue until the position is filled. For more information on the Department of Mathematics and Statistics, visit http://math.williams.edu/. Beyond meeting fully its legal obligations for non-discrimination, Williams College is committed to building a diverse and inclusive community where members from all backgrounds can live, learn, and thrive.

volunteers WANTED

Have you ever thought about serving on an ASA committee of interest to you? The success of the ASA depends on ASA committees and the volunteers who serve on them.

Each year, vacancies are filled in nearly all of the ASA's 50+ committees, usually for a three-year term. A list and description of all the committees can be found at *www.amstat.org/committees*.

You can volunteer or recommend another by going to *www.amstat.org/committees* and clicking on "Volunteer or make committee member recommendations."

UNC GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH

Faculty Positions in Biostatistics

The Department of Biostatistics at the University of North Carolina at Chapel Hill is seeking applications for two Tenure Track positions in Biostatistics, with specialization in (1) survey methodology in health science research or (2) infectious disease research methods, beginning in Summer or Fall 2011. Appointments will be in Biostatistics in UNC's Gillings School of Global Public Health. Applicants are sought at Assistant, Associate, or Full Professor rank, depending on professional experience and accomplishment. Applicants should have broad research and teaching interests and the ability to engage in both collaborative and doctoral dissertation research.

For Position (1), a doctoral degree in Biostatistics, Survey Methodology, Statistics, Social Statistics, or equivalent, along with leadership experience in population-based research studies, is required. Moreover, the successful candidate will provide two types of leadership within the Department of Biostatistics, as: (i) head of the Department's curriculum in survey research methods, and (ii) Director of the Department's Survey Research Unit, which collaborates with investigators doing population-based research by offering assistance with design, data gathering, and analysis. For Position (2), a doctoral degree in Biostatistics, Statistics, or equivalent is required; and the successful candidate will provide biostatistical leadership in the UNC Center for Aids Research.

The University of North Carolina at Chapel Hill is among the nation's top public research universities, with dynamic research programs in a broad array of health and social sciences disciplines, including bioinformatics, epidemiology, health services research, infectious diseases, nutrition, social medicine, health education, and public policy. In addition, UNC-CH has numerous externally funded centers that provide an excellent environment for interdisciplinary research. These positions will remain open until filled.

To apply, use the electronic submission website *http://jobs.unc.edu/2500232* and upload PDF versions of your CV, cover letter, and research and teaching statements. Please state which of the position(s) you are applying to. Candidates must also arrange for four letters of recommendation to arrive via email at *bseagrov@bios.unc.edu* and subsequently in hard copy to:

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

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

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON DC

THE BIOSTATISTICS CENTER

Genetics Statistician (Statistical Geneticist)
Ph.D. Level

The George Washington University Biostatistics Center is seeking a *genetics statistician* (statistical geneticist) (Assistant, Associate or full Research Professor) to serve as Co-Investigator or Principal Investigator (Project Director) to direct the genetics components of large multicenter studies; including to design genetic studies, manage data collection, conduct analyses and publish the results; and also conduct methodologic research to meet the projects needs. The Center provides the statistical direction and coordination of national and international clinical trials and epidemiologic studies sponsored by the National Institutes of Health with $55 million funding annually. These include major studies in cardiovascular disease, diabetes, maternal/fetal medicine, osteoporosis, urology, and the genetic basis for various diseases, many of which have a major genetics component. We are seeking individuals to join a highly competent team of academic biostatisticians and epidemiologists who desire to contribute to the design and analysis of major medical studies, seek substantive scientific and statistical responsibility, contribute to the publication of major papers in leading medical journals, and desire to make an impact on the public health. Our research faculty may also participate in graduate programs in biostatistics, epidemiology, statistics and bioinformatics that afford opportunities for teaching at the graduate level and mentoring graduate students.

Basic Qualifications: Doctorate in Biostatistics or Statistics (or equivalent) with specialization in genetics, at least three years of post-doctoral research and supervisory experience.

Preferred Qualifications: Preference will be given to candidates with experience in the design, data management, analysis and publication of genome wide studies in large population-based studies, and those with excellent oral and written English communication skills.

Application Procedures: Applicants must send to ResearchJobs@bsc.gwu.edu a Curriculum Vitae and three letters of reference; a letter to include a synopsis of their role in collaborative medical research that led to medical scientific publication, and a statement of career purpose indicating their career goals and how this position can help you achieve those goals; and applicants for Assistant Research Professor positions must send an Official Transcript of graduate coursework leading to the doctoral degree to: **Manager of Human Resources, The Biostatistics Center, The George Washington University, 6110 Executive Blvd., Suite 750, Rockville, MD 20852. HTTP://WWW.BSC.GWU.EDU**

Only complete applications will be considered. Review of applications is ongoing until the positions are filled. Rank/position title and salary commensurate with experience and qualifications. Tuition benefits for employees (including Ph.D. programs in Statistics, Biostatistics and Epidemiology) and for spouse and dependent children**.**

All research and regular faculty at the rank of Assistant Professor in Biostatistics or Statistics may apply for the **Samuel W. Greenhouse Biostatistics Research Enhancement Award**. For a period of 1 year, the award will provide 20% of the full-time effort for methodological research and a discretionary fund to support professional activities (travel to professional meetings, supplies and equipment). Applicants for the research faculty position may also apply for the Greenhouse Award while their faculty application is being considered.

The George Washington University is and equal opportunity / affirmative action employer.

experience; superb communication and computing skills; experience working intelligently in a regulated environment. Exact title and salary commensurate with experience. *http://biomimetics.com/careers.htm*. BioMimetic promotes an active policy of Equal Employment Opportunity (EEO) for all individuals without regard to race, color, religion, sex, age, national origin, sexual orientation, or disability. The company policy relates to all phases of employment—including, but not limited to, recruitment, employment, promotion, transfer, rates of pay, and other forms of compensation—and selection for training.

Texas

■ The department of statistical science at Baylor University is seeking applicants for an assistant/associate professor position, beginning August, 2011. Candidates must hold a PhD in statistics or biostatistics, and be committed to excellence in research, teaching, and service. Applicants should submit a letter of intent, vitae, transcripts, and three letters of reference to *statistics-search-10@baylor.edu*. Completed applications ensure full consideration if received by November 30.

Utah

■ The department of mathematics at the University of Utah invites applications for the following positions: Full-time tenure-track or tenured appointments at level of assistant, associate, or full professor in all areas of mathematics and statistics. Three-year Scott, Wylie, and Burgess Assistant Professorships. See our website at *www.math.utah.edu/positions* for information regarding available positions, application requirements and deadlines. Applications must be completed through the website, *www.mathjobs.org*. The University of Utah is an equal opportunity, affirmative action employer and encourages applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees. The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and

possess a strong commitment to improving access to higher education for historically underrepresented students.

West Virgina

■ West Virginia University Department of Community Medicine seeks applicants for a full-time tenure-track public health faculty position in biostatistics. For complete details, see *http://www.hsc.wvu.edu/som/cmed*. PhD in biostatistics is preferred. Submit a cover letter, contact information for three references, and CV via e-mail to Crystal Toth *ctoth@hsc.wvu.edu*. This position will remain open until filled. WVU is an AA/EOE. WVU Health Sciences Center is a tobacco-free campus.

Wisconsin

■ One tenure-track Asst. Professor position in UW-Madison, Dept. of Statistics, w/research interest in theory and/or methodology, beginning August 2011. PhD in Statistics or closely related quantitative field required prior to starting. For more information, visit *www.stat.wisc.edu/employment*. Send letter of application, vitae, research, three reference letters to: Search Committee, Statistics, UW-Madison, 1300 University Ave., Madison, WI 53706, by December 17 for full consideration. University of Wisconsin is an AA/EOE. Women & minorities encouraged to apply.

International

■ Center for Statistical Science at Peking University has open rank tenure track or tenured positions at all levels. PhD in Statistics or related fields, strong research background/potential, good communication skills and interested in teaching. Start-up grant, settling down allowance and internationally competitive salaries are offered depending on the appointments and experience. More information at *www.stat-center.pku.edu.cn* or contact *stat-center@pku.edu.cn*. EOE. ■

The UNIVERSITY of WESTERN ONTARIO
Departments of Epidemiology & Biostatistics and Statistical & Actuarial Sciences
CANADA RESEARCH CHAIR in BIOSTATISTICS

The Departments of Epidemiology & Biostatistics and Statistical & Actuarial Sciences are pleased to announce a search for a Tier 2 Canada Research Chair at the Assistant (probationary (tenure-track)) or Associate (probationary (tenure-track) or tenured) Professor level in Biostatistics. The starting date will be January 1, 2012 or thereafter and will depend upon a successful CRC nomination.

Prospective candidates may visit our home pages at http://www.uwo.ca/epidem/ and http://www.stats.uwo.ca/. See http://www.chairs.gc.ca/ for details concerning the CRC program. The successful candidate must have a PhD or equivalent and an established record of high impact research and publication in Biostatistics. In order to be eligible for a Tier 2 Chair, the candidate will be less than 10 years since PhD and will be an emerging research leader. The candidate will also have a commitment to, and demonstrated aptitude for, teaching and will be expected to teach at the undergraduate and graduate levels and to supervise graduate students and provide leadership in the Collaborative Graduate Program in Biostatistics.

Faculty in the Collaborative Graduate Program in Biostatistics have research interests which include the development and application of a range of methodologies (including cluster randomization, epidemiology, epidemiologic risk assessment, genetic epidemiology, health economics, interval-censored data, multi-state models, nonparametric regression, statistical genomics, statistical computing, survey methods, and survival analysis). The successful candidate will benefit from the growing research interest at Western in the development of statistical methods for the assessment of gene-environment interactions, causal effect estimation, and personalized medicine.

Candidates should submit a curriculum vitae, a list of publications, a research plan, a statement (not to exceed 500 words) explaining how background, experience and research accomplishments qualify you for this position, and must arrange for at least three letters of reference to be sent to:

Professor Rick Secco, Associate Dean (Research)
Office of the Dean, Faculty of Science
The University of Western Ontario
London, Ontario N6A 5B7, Canada

Applications will be considered starting November 1, 2010.

Positions are subject to budgetary approval. Applicants should have fluent written and oral communication skills in English. All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. The University of Western Ontario is committed to employment equity and welcomes applications from all qualified women and men, including visible minorities, aboriginal people and persons with disabilities.

U.S. Department of Health and Human Services
National Institutes of Health

National Heart Lung and Blood Institute
People Science Health

MATHEMATICAL STATISTICIAN (BIOMEDICAL)

The National Heart, Lung, and Blood Institute (NHLBI), a major research component of the National Institutes of Health, is seeking a Mathematical Statistician (Biomedical) in the Office of Biostatistics Research (OBR). OBR performs diverse functions in planning, designing, implementing and analyzing NHLBI-sponsored studies, including clinical trials, multiplicity issues, survival analysis, longitudinal data analysis, and statistical genetics. For more information about OBR, contact Nancy Geller gellern@nhlbi.nih.gov.

The successful applicant will provide biostatistics research and consultative support for major clinical studies funded by NHLBI. Candidates with background in mathematics and statistics and experience in biostatistics research are encouraged to apply. Please visit www.nhlbi.nih.gov/about/jobs to find the Mathematical Statistician (Biomedical) link, which will direct you to the USAJOBS website. To apply, submit your application through the USAJOBS online system by November 1, 2010.

HHS and NIH are Equal Opportunity Employers.

Contacts

Main

American Statistical Association
732 North Washington Street
Alexandria, VA 22314-1943
Phone: (703) 684-1221
Toll-free: (888) 231-3473
Fax: (703) 684-2037
Email: *asainfo@amstat.org*

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

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

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ASA members receive *Amstat News*, enjoy a variety of discounts, build an invaluable network of more than 18,000 members, and expand their career horizons. To join, go to *www.amstat.org/join.*

Member Services

Do you have an address change, membership question, claim, or general inquiry? Please call the ASA Member Service's toll-free direct line, (888) 231-3473, for all your ASA needs. If you prefer, email Member Services at *asainfo@amstat.org* or fax to (703) 684-2037.

Campaigns for the ASA

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

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

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

Sponsor an ASA Membership

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

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

Chapter-Get-A-Member

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

Publications & Products

Back Issues

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

Books

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

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

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

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

Brochures

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

CDs

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Encourage ethical statistical work in morally conducive work environments. Visit *www.amstat.org/about/ethicalguidelines.cfm or* contact Member Services to request a copy.

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The ASA offers a variety of publications in print and online. Visit *www.amstat.org/publications* for more information.

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The Distinguished Statistician Video Series offers the chance to bring a lecture or discussion by a renowned statistician to any ASA chapter meeting, university classroom, company archive, or home collection. For more information, email *educinfo@amstat.org*.

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

ASA JobWeb/Career Center

The ASA JobWeb, a targeted job database and résumé-posting service, helps you take advantage of valuable career opportunities. Check out the services available at *www.amstat.org/jobweb* or email *jobweb@amstat.org*.

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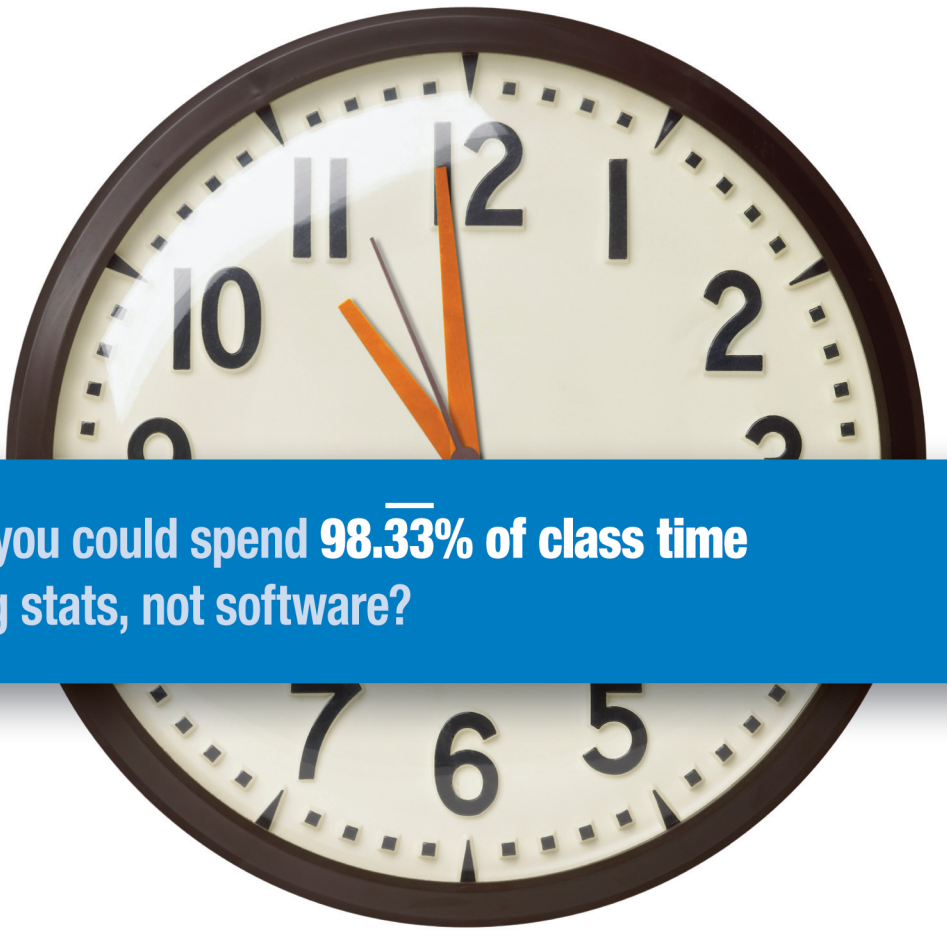

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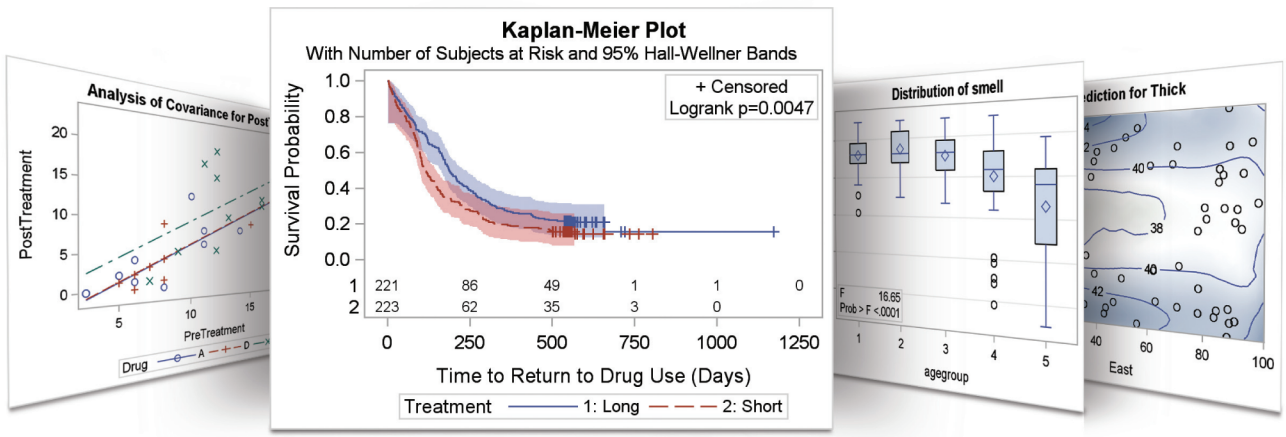

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