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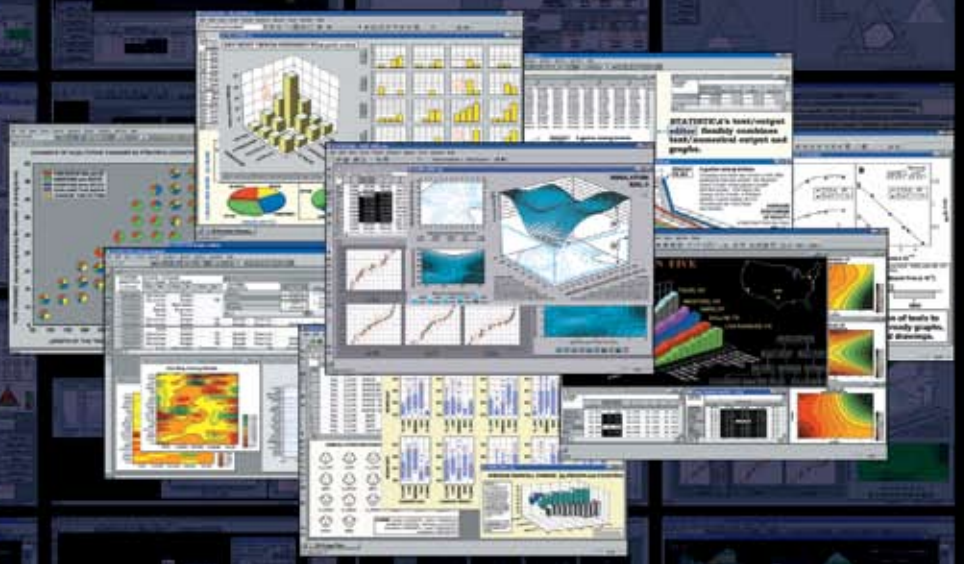

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To be a world leader in promoting statistical practice, applications, and research; publishing statistical journals; improving statistical education; and advancing the statistics profession

MISSION STATEMENT

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

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Master's Notebook

Biostatisticians: Do You Know What They Do? **p. 26**

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

Rebecca Shackelton Piccolo is a project manager/ biostatistician at New England Research Institutes in Watertown, Massachusetts. She earned her MS in biostatistics from Brown University.

Piccolo

QUOTABLE

"…what you would expect an email from a statistician to be. Cautious, precise, understated … Spock on an especially dull day. But after my column last week, I got emails from statisticians who were angry … Livid. Furious. Hissing, spitting …"

Dan Gardner, "Statisticians go wild. When the number-crunchers get angry, government should know it made a mistake" *The Ottawa Citizen, http://tinyurl.com/3a3rupx*

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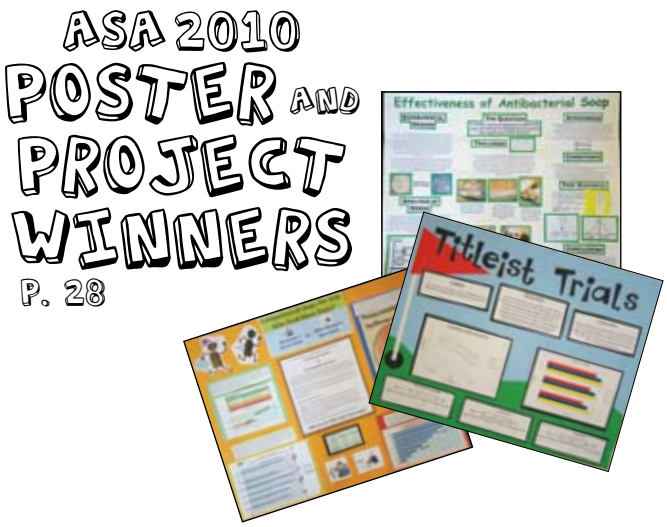

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A Pat on the Back for Our Longtime Members

By the time you read this, I hope we will have had another successful JSM and our members will have enjoyed the beautiful location, hospitality, exchange of ideas, networking, and mentoring at various levels. Thank you for your participation, and thanks to all members and staff involved in making it a great success.

I want to take this opportunity to thank the longtime members of our association. When I read through the list (see April 2010 issue of *Amstat News*) of these members, I am always impressed. Here is the "who's who" of our profession and, in particular, our association. They have a lot to be proud of, both personally and professionally. This list includes ASA presidents, vice presidents, board members, and executive directors, as well as many award winners.

Some have served (or are serving) in leadership positions in our chapters and sections. Others volunteer on various committees and task forces. We are enjoying the fruits of their continued labor to *promote the practice and profession of statistics*.

A quick look at the list of longtime members will tell you it consists of a diverse group of people representing all of our sectors, genders, and backgrounds. We celebrate the diversity of our association.

There is not enough room in this column to name the individual contributions of all our longtime members, so I simply say thank you again for all you have done in the past and for your continued support. You are role models for many of us. Our association thrives on volunteers such as you, who have set a good example for future longtime members. Thank you also for your support of the ASA's development. I appreciate hearing from you on a regular basis, and your seasoned advice has been priceless.

My upbringing tells me we should take care of our elders, who have given us so much and continue to be the force behind many of our successes. The ASA provides certain benefits to our longtime members, including the opportunity to become a life member starting at age 50.

It is nice to hear stories and historical perspectives during the longtime members' reception at JSM. Career paths of many of these members, published at times in *Amstat News*, are beneficial to our newer and future longtime members. I am sure each of us knows at least one longtime member, so please take a few minutes to thank them for their service to our association. Also, each of us knows a younger member who may be looking for a mentor. Please make time to connect these younger members with longtime members. There is a rich pool of experience to draw from. Our retired faculty members, for example, have been a great support and inspiration to me.

At JSM, we honored a number of new ASA Fellows. Congratulations! Your professional achievements and service to our association are admirable. I urge you to continue your ASA

Sastry Pantula

membership and service. I would love to see you become life members.

As past president Fritz Scheuren passionately did a few years ago, I ask that Fellows who have allowed their memberships to lapse renew them soon. My understanding is that about 400 out of more than 2,000 current ASA Fellows have forgotten to renew their memberships. I know you are proud to be an ASA Fellow, and we are proud of you being a part of our association. Welcome back!

Statistical Literacy

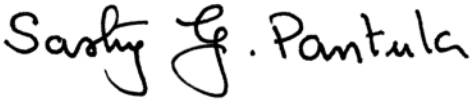
At the recent International Conference on Teaching Statistics, I heard several good talks regarding the importance of appropriate statistical literacy and training of journalists, scientists, lawyers, policymakers, and others. One speaker suggested an important role for us to play is that of umpire.

As Stan Young at the National Institute of Statistical Sciences put it, there is a breed of "science crooks" who are deliberately misusing statistical methods for short-term gains. Of course, many are facing long-term negative effects now, whether it is in health, finance, or the environmental and engineering fields. In most of the cases, the damage is irreparable. In the process, however, the statistical profession's positive contributions and innovations are being overshadowed, leaving the public skeptical about science in general.

I continue to urge that we do an outstanding job of educating the public through our one-shot introductory courses, by publishing articles in other fields about the proper use of statistical methods, and by writing letters to the editor whenever it is appropriate. Silence on the misuse of statistics may be interpreted as condoning it. I know our members are doing an outstanding job to help advance science and discovery; we have a lot to be proud of.

Moving On

As you may know, I will be moving to my new position at the National Science Foundation as the division director of the Division of Mathematical Sciences in September. I will continue in my role as ASA president for the rest of this year and serve my term on the ASA Board in 2011 as past president. I will be moving to Arlington, Virginia, and won't be far from the ASA office, in Alexandria. I look forward to working with the mathematical and statistical sciences communities, and I appreciate your continued support. Thank you!



Volunteer News Editors Needed for *Significance* Site

Significance is now an official magazine of the American Statistical Association and Royal Statistical Society, with the first joint issue slated for publication this summer. To accompany the collaboration, an exciting magazine website will launch later this year. We are looking for volunteer news editors to write and post articles daily about the following:

- Education
- The environment, nature, and climate change
- Health and medicine
- Bioinformatics and genomics
- The history of science and statistics
- Finance and the economy
- Food and drink
- Official statistics
- Science and technology
- Sports
- The social sciences

Why Become a News Editor?

- Engage readers with magazine articles
- Demonstrate the relevance of statistics to everyday matters
- Promote your area of interest/speciality
- Get free access to featured journals
- Gain experience using blog technology
- Include your profile on the site
- Fit the work around your schedule (after initial training, the role requires about one hour every two weeks)
- Network with others
- Gain experience in communicating statistics to both specialists and a general audience
- Raise your profile within the statistical community

What Does Being a News Editor Entail?

As a news editor, you will be asked to post one brief article every two weeks, though you are welcome to post more. These could be:

- News articles that look at topical news items and provide comment and analysis from a statistical perspective (Where appropriate, news editors may link these topical news items to related articles previously published in ASA and RSS journals and *Significance*.)
- Abstracts, rewritten into "magazine" style, from conferences you have attended or papers you have seen
- Outlines of research that you or colleagues may be involved in, or any topic that might appeal to readers of *Significance*
- An occasional long article, of the type that appears in *Significance*

For a copy of *Significance*, the full news editor brief, or details about how to apply, contact Nicola Emmerson at *n.emmerson@rss.org.uk* or visit *www.rss.org.uk/sigweb*. ■

CBMS Seeks Enrollment Data

Ellen Kirkman, College Board of the Mathematical Sciences

Since 1965, the Conference Board of the Mathematical Sciences (CBMS) has undertaken a comprehensive study of U.S. undergraduate programs in the mathematical sciences, with funding from the National Science Foundation and support from the mathematical sciences professional societies.

A stratified random sample of 600 institutions was selected for the 2010 survey from the roughly 2,500 institutions that are either public two-year colleges or (public or private) four-year colleges and universities that have undergraduate programs in mathematics or statistics. This year, for the first time, the survey instrument will be available both online and in print.

The CBMS surveys request enrollment data for individual courses and information about majors, curriculum, and pedagogy at the surveyed institutions; additional information about faculty is collected from the Annual Survey of the Mathematical Sciences. A report based on the gathered data will be published in the spring of 2012, both online and in a paper monograph. Reports of the 2005, 2000, 1995, and 1990 CBMS surveys can be found at *www.ams.org/cbms*.

The CBMS surveys have been useful to academic planners and department chairs. Findings from the 2005 survey include the following:

- In four-year college and university statistics departments, elementary-level enrollments in fall 2005 were essentially unchanged from fall 2000 levels and were 10% above 1995 levels. Upper-level statistics enrollments grew by about 20% between 2000 and 2005, after increasing by about 25% between 1995 and 2000.
- In two-year colleges, statistics enrollments, which had increased by less than 3% between 1995 and 2000, increased by almost 60% between fall 2000 and fall 2005.
- In doctoral statistics departments, the number of full-time faculty members reversed a decline that had occurred between 1995 and 2000, and, in fall 2005, was about 13% larger than in fall 1995.

Given the data's importance to the statistical community, administrators of those departments selected for the survey are urged to complete the survey. The new online system has a number of advantages over the hardcopy form: It will automatically skip those questions that are not applicable (based on earlier responses), gray out portions of questions that do not apply, remind one of previous responses, and provide definitions when the cursor hovers over certain highlighted words.

Questions about the survey may be addressed to the survey director, Ellen Kirkman, at *kirkman@wfu.edu* or the statistical science representative, Dalene Stangl, at *dalene@stat.duke.edu*. ■

Call for Papers

Pakistan Journal of Statistics and Operation Research

The *Pakistan Journal of Statistics and Operation Research* (*PJSOR*) is accepting papers describing the latest research and developments in statistics, operation research, and actuarial statistics. *PJSOR* is a peer-reviewed journal that is published two times per year.

Authors should submit manuscripts at *www.pjsor.com*, where they will be evaluated anonymously by two reviewers. Questions may be addressed to the *PJSOR* editor at *editor@pjsor.com*. ■

Fellow Award: Revisited (Again)

Robert Starbuck, Committee on Fellows Member

The 2010 ASA Fellow awards were presented at the Joint Statistical Meetings in Vancouver, British Columbia, earlier this month. Here, I present a brief update to previous articles on this subject appearing in *Amstat News*. A few corrections have been made to previous counts of Fellow nominees and awardees.

Employment Sector

In the range of years shown, the percentages of ASA members by employment sector have remained relatively stable: 42% academe, 47% business/industry, 11% government.

The counts of ASA Fellow awards given by employment sector since 2004 are presented in Table 1 and Figure 1.

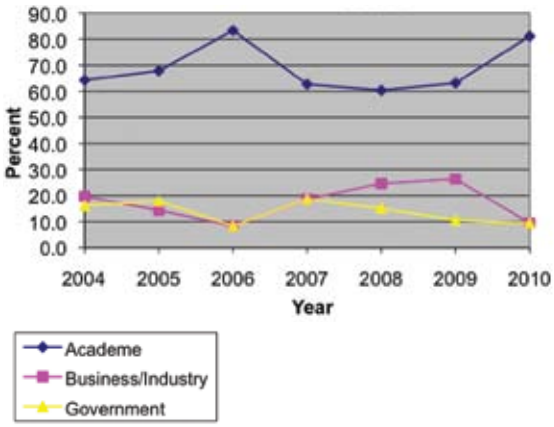


Figure 1. Percentages of ASA Fellows awarded by employment sector

Table 1—Counts and Percentages of ASA Fellow Awards

Year	Employment Sector			
	Academe	Business/ Industry	Govern- ment	Total
2004	36 (64.3)	11 (19.6)	9 (16.1)	56
2005	38 (67.9)	8 (14.3)	10 (17.9)	56
2006	50 (83.3)	5 (8.3)	5 (8.3)	60
2007	37 (62.7)	11 (18.6)	11 (18.6)	59
2008	32 (60.4)	13 (24.5)	8 (15.1)	53
2009	36 (63.2)	15 (26.3)	6 (10.5)	57
2010	43 (81.1)	5 (9.4)	5 (9.4)	53

The percentages of Fellows awarded by employment sector relative to the percentages of ASA membership by sector are shown in Figure 2.

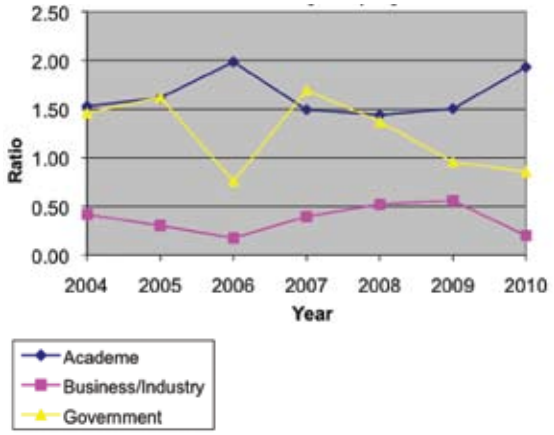


Figure 2. Percentages of ASA Fellows awarded/percentages of ASA membership by employment sector

The counts and percentages of Fellow nominations by employment sector are shown in Table 2. The number of nominations from business/industry was lower this year than in any of the seven years included in this report.

Table 2: Counts and Percentages of ASA Fellows Nominations

Year	Employment Sector			
	Academe	Business/ Industry	Govern-ment	Total
2004	44 (58.7)	16 (21.3)	15 (20.0)	75
2005	51 (57.3)	22 (24.7)	16 (18.0)	89
2006	81 (73.0)	19 (17.1)	11 (9.9)	111
2007	79 (65.8)	22 (18.3)	19 (15.8)	120
2008	60 (64.5)	18 (19.4)	15 (16.1)	93
2009	59 (62.1)	23 (24.2)	13 (13.7)	95
2010	71 (72.4)	13 (13.3)	14 (14.3)	98

So, how have the nominations fared in each of the employment sectors? As shown in Table 3 and Figure 3, nominations submitted this year from the business/industry and government sectors did not fare well and were far less successful than nominations from academe.

Table 3: Percentages of Successful ASA Fellows Nominations

Year	Employment Sector		
	Academe	Business/ Industry	Government
2004	81.8	68.8	60.0
2005	74.5	36.4	62.5
2006	61.7	26.3	45.5
2007	46.8	50.0	57.9
2008	53.3	72.2	53.3
2009	61.0	65.2	46.2
2010	60.6	38.5	35.7

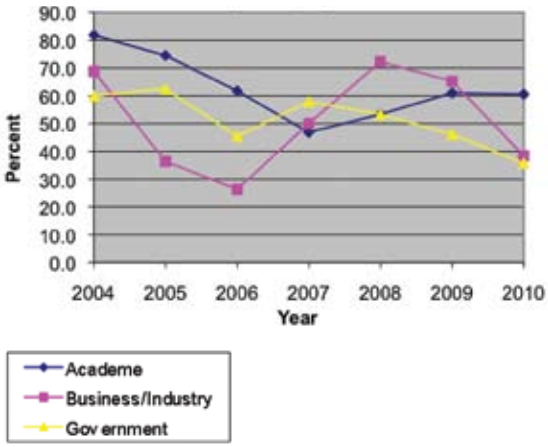


Figure 3. Percentages of successful ASA Fellows nominations by employment sector

Gender

The membership of the ASA has changed significantly in the percentages of females and males, as illustrated in Table 4 and Figure 4. This table looks at the current ASA membership and subsets that joined the ASA in ranges of previous years.

Table 4: Percentages of ASA Membership by Gender

Current ASA Members	Female	Male
Joined ASA ≤ 1984	17	83
Joined ASA ≤ 1989	18	82
Joined ASA ≤ 1994	21	79
Joined ASA ≤ 1999	23	77
All	32	68

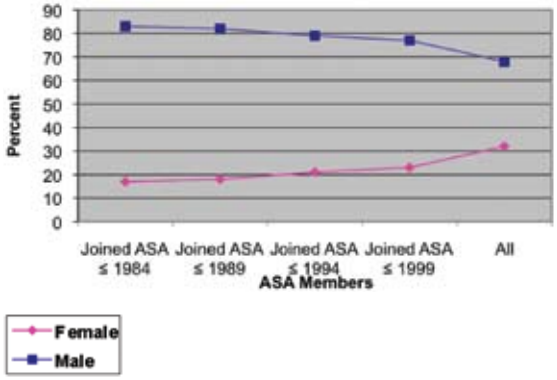


Figure 4. Percentages of current ASA members by gender

Assuming the number of departures from the ASA membership has been proportional to gender (i.e., females and males are equally likely to discontinue or retain ASA membership), there has been a noticeable increase in the percentage of female members.

The ASA Fellow award is almost always given to ASA members who have reached mid-career, and, as such, the gender percentages of ASA membership that are appropriate reference points for 2004–2010 are those reflecting members who joined the ASA on or before 1994–1999. Thus, the relevant reference percentages for females for Fellow nominations and awards are in the 21% to 23% range.

The counts and percentages by gender of ASA Fellow nominations in 2004–2009 are presented in Table 5.

Table 5: Counts and Percentages of ASA Fellow Nominations by Gender

Year	Female	Male	Total
2004	14 (18.7)	61 (81.3)	75
2005	24 (27.0)	65 (73.0)	89
2006	25 (22.5)	86 (77.5)	111
2007	22 (18.3)	98 (81.7)	120
2008	16 (17.2)	77 (82.8)	93
2009	12 (12.6)	83 (87.4)	95
2010	24 (24.5)	74 (75.5)	98

The percentages of female nominees have been slightly below the reference percentages for four of the seven years, and were substantially below in 2009.

The counts and percentages by gender of ASA Fellow awards in 2004–2010 are presented in Table 6, and the percentages are presented in Figure 5.

Table 6: Counts and Percentages of ASA Fellow Awards by Gender

Year	Female	Male	Total
2004	13 (23.2)	43 (76.8)	56
2005	15 (26.8)	41 (73.2)	56
2006	11 (18.3)	49 (81.7)	60
2007	14 (23.7)	45 (76.3)	59
2008	11 (20.8)	42 (79.2)	53
2009	7 (12.3)	50 (87.7)	57
2010	17 (32.1)	36 (67.9)	53

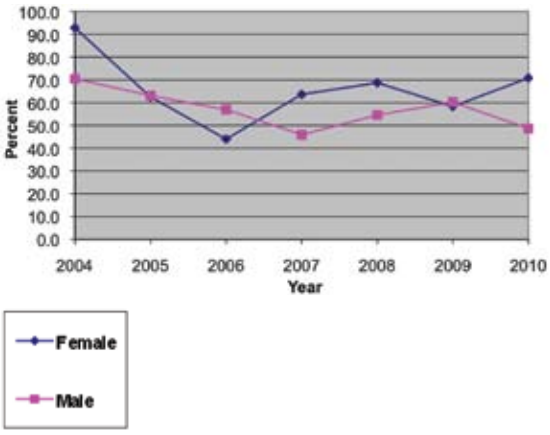


Figure 5. Percentages of ASA Fellows awarded by gender

The percentages of female Fellow awardees have been generally reflective of the reference percentages. As shown in Table 7 and Figure 6, the decline in the percentage of female Fellow awardees in 2009 was due to the lower percentage of female Fellow nominations. For nominees, the average chance of success is slightly higher for females.

Table 7: Percentages of Successful ASA Fellow Nominations by Gender

Year	Female	Male
2004	92.9	70.5
2005	62.5	63.1
2006	44.0	57.0
2007	63.6	45.9
2008	68.8	54.5
2009	58.3	60.2
2010	70.8	48.6
Mean	65.8	57.1

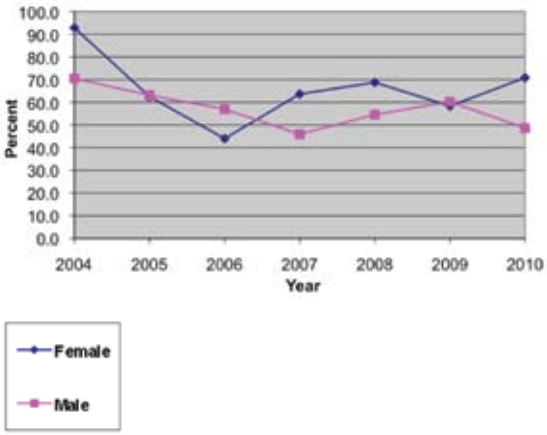


Figure 6. Percentages of successful ASA Fellows nominations by gender

Conclusion

The number of Fellow nominations from a given employment sector or gender is a key factor in determining the number of awards from that sector. The other obvious key factor is the quality of the nominations. To increase the number of Fellow awards in an employment sector or gender to achieve parity in the percentages of awards relative to the percentages of ASA membership (see figures 2 and 5), the number of nominations from that sector or gender needs to increase, and these nominations need to be of good quality.

The ASA Fellow award is a significant recognition of contributions to the statistics profession and one that should reflect the constituency of the membership of the ASA. If you or others you know are deserving of this award, please participate in and encourage others to participate in the award nomination process. ■

International Symposium to Focus on Social Statistics

Statistics Canada's 2010 International Methodology Symposium, titled "Social Statistics: The Interplay Among Censuses, Surveys, and Administrative Data," will take place at the Crowne Plaza Hotel in Ottawa, Ontario, Canada, from October 26–29. Anyone with an interest in statistical or methodological issues resulting from the use of multiple sources of data is invited to attend, whether from a private organization, government, or academia.

The first day will consist of workshops, while the following days will consist of both plenary and parallel sessions covering a variety of topics. Additional research and results may be presented via poster sessions.

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

New CE Program Provides Training *Any Time, Anywhere*

Rick Peterson, ASA Education Programs Associate

LearnSTAT OnDemand webinars are available to everyone, but ASA members receive a $25 discount. When purchasing access to one of the presentations, have your membership ID and the LearnSTAT OnDemand member code handy. The current member code can be found in the Members Only section of the ASA website under "Partner Discounts and Special Offers." Once you complete the transaction, an email will be sent with information about how to view the presentation.

The ASA recently launched LearnSTAT OnDemand, a program that offers access to recorded webinars on an on-demand, pay-per-view basis. The recorded webinars are available 24 hours a day, seven days a week, all year long.

LearnSTAT OnDemand currently has 13 offerings, including webinars from the Biopharmaceutical, Survey Research Methods, and Quality and Productivity sections and a webinar on statistical education developed in conjunction with the American Mathematical Association of Two-Year Colleges. Each recorded webinar is roughly two hours in length and features top statisticians discussing their areas of expertise.

New webinars will be added two to three months after they are presented live, continuously increasing the number of recorded webinars available and creating a virtual library that is accessible at any time in any corner of the world.

Once a recorded webinar is purchased, the viewer will have access to it four times. Navigating to and from the webinar recording constitutes one access period. During each access period, the viewer may pause, rewind, or forward the recording.

For added cost-effectiveness, a group can gather in a room equipped with a projector, screen, and computer with speakers to view the presentation together. This is ideal for the following:

- Adding an educational component to chapter meetings
- Showing a presentation to students
- Watching a webinar at the next departmental meeting

LearnSTAT OnDemand offerings are listed under the Continuing Education tab at *www.amstat.org/education*, along with descriptions of the webinars and presenter biographies. Questions about or suggestions for LearnSTAT OnDemand can be addressed to Rick Peterson, ASA education programs associate, at *rick@amstat.org*. ■

ASA Launches Annual Fund Drive

Ron Wasserstein, ASA Executive Director

The American Statistical Association is launching its 2010 Annual Fund drive and invites you, once again, to "be significant—play a part in the future of statistics" by being a contributor.

The focus of the 2010 Annual Fund Drive was established by the ASA Board of Directors in consultation with the ASA's Development Committee, chaired by Scott Evans of the Harvard School of Public Health. Gifts to the fund can be made to the ASA's unrestricted fund, or specified to support one of the following areas:

- **Promoting the field of statistics:** Gifts support such activities as continuing education courses, workshops on statistical writing for the media, and advocacy efforts on behalf of the profession in Congress and with the Administration.
- **Providing access to the field of statistics:** Gifts support a variety of activities, including travel funds for students to attend JSM or other conferences, ASA memberships for statisticians in developing countries, and graduate school scholarships for promising statisticians.
- **Recognizing excellence in the field of statistics:** Gifts support the recognition of excellence in the profession by increasing the funding available for award prizes and funding special recognition sessions at JSM and elsewhere.

The annual fund is a fundamental part of the ASA's advancement program. Funds raised allow the association to advance its work in promoting the discipline of statistics in ways that might not be possible otherwise. The 2009 contributions were used to support several important programs; to view a list of those programs, see *http://magazine.amstat.org/blog/2010/02/01/coverstory21*.

All gifts are helpful, small gifts or not-so-small. For example, $40 makes it possible for a statistician from a developing country to have the benefits of ASA membership for one year. A few people giving $75 each can help a student attend his or her first JSM. A $150 gift can help us teach a journalist how to more clearly and accurately communicate statistical information, or provide materials for our work with Congress and the Administration.

ASA President Sastry Pantula and the ASA Board of Directors invite you to join them in making a contribution to the annual fund. You can contribute online at *www.amstat.org/giving* or you can fill out the downloadable form there and mail it to the ASA with your check.

Whether or not you participate in this year's annual fund drive, we thank you for being a member of the ASA and for all your contributions to the well-being of our association and profession. ■

Symposium Planned in Honor of Lagakos

There will a one-day symposium on October 22 in honor of Stephen Lagakos, who died in an accident in October of 2009. Discussion will reflect Lagakos's interests, including HIV prevention, biostatistical education in the 21st century, and clinical trials.

Robert Gallo of the University of Maryland will be the keynote speaker, and a dinner will follow the symposium at which Harvey Fineberg of the Institute of Medicine will speak.

The symposium is free to attend, and all are invited. It will be held in the Joseph B. Martin Conference Center at Harvard Medical School. For more information, contact Leah Segal at *lsegal@hsph.harvard.edu*. ■

Member Spotlight
Grace O'Neill

O'Neill

Growing up, I was never particularly interested in math or statistics. I didn't really mind it and, for the most part, could do the work, but I just wasn't excited by it and never put any effort into it.

In high school, taking a math class in my senior year was optional. To me, this meant one less year of math classes, but to Mr. Riley—my geometry teacher—it meant I should start applying myself and take all four years.

Since neither of us was going to budge, we made a deal: He would sign off on me taking a "below-my-aptitude" math class my junior year as long as I promised to take a math class my senior year. To me, this was a win-win deal. I needed Mr. Riley's signature to take the math course I wanted and Mr. Riley was able to keep an unmotivated, but good, kid in math.

My run-in with statistics came in college. Now, I was the kid with a new major ever week: biology, journalism, psychology … you name it and I probably at least considered it (although anything related to numbers never really made the list because I was interested in understanding people, not numbers).

Eventually, I ended up at The Pennsylvania State University via the Indiana University of Pennsylvania with big dreams of being a sociologist and demographer. I had no plans post-graduation, however, so when I was offered an internship at the U.S. Census Bureau through the Joint Program in Survey Methodology's (JPSM) Junior Fellow Program, I jumped on the opportunity. If nothing else, it would allow me some time to figure out what I wanted to be when I grew up while meeting new people and exploring a new city.

I learned a lot from that internship, including the ins and outs of the Watergate Safeway, that Ethiopian food is quite tasty, and that crunching numbers and checking data tables wasn't really what I had in mind for my future employment.

That summer might have been the end of my interaction with statistics, except that summer also introduced me to a world I didn't know existed: the world of survey methodology. Who knew I could make a living designing, collecting, and analyzing data on such a wide range of topics?

That fall, the U.S. Census Bureau hired me and offered to pay for some JPSM classes. Needless to say, I was quickly hooked and went off to the University of Maryland to get my master's degree. While at JPSM, I learned everything from survey design to sampling to data analysis. While I'll never be a sampling statistician, the concepts I remember and cite in meetings still amaze me.

I next went to work on the American Time Use Survey (ATUS) at the Bureau of Labor Statistics (BLS). The ATUS collects data on the amount of time people spend in various activities, including working, caring for children, watching television, and socializing. While my job was primarily survey design work, I was part of a small staff on a brand new survey so I helped do everything from planning imputation schemes to testing question wording. I really enjoyed my time at BLS; it was a great way to apply all I'd learned in graduate school.

My next move was to the Economic Directorate at the

U.S. Census Bureau, where I experienced life on the establishment survey side of the fence. My job was all about reducing measurement error from forms, respondents, and interviewers, where applicable. As a consultant to the other census offices, I provided expert reviews of forms and survey practices in addition to cognitive and usability testing. This work was interesting, necessary, and often provided a good way to learn the data products collected and disseminated by the bureau.

I eventually migrated to my current job as a survey methodologist at the Energy Information Administration (EIA) in the Statistics and Methods group. While this work is similar to the work I did at the bureau, I found working with energy data fascinating and something I immediately wanted to learn more about.

As I like to tell people, EIA passes the cocktail party test, since most people have follow-up questions when they learn I work for the Department of Energy. I've had many conversations with people at parties or professional gatherings about the Smart Grid, shale gas and oil pricing, and, yes, even numbers. This type of conversation led to my recent involvement as co-program chair of the data collections methods section for my local ASA chapter, the Washington Statistical Society. I've attended and presented at several Joint Statistical Meetings, but being involved at the local level has been both an interesting and rewarding experience.

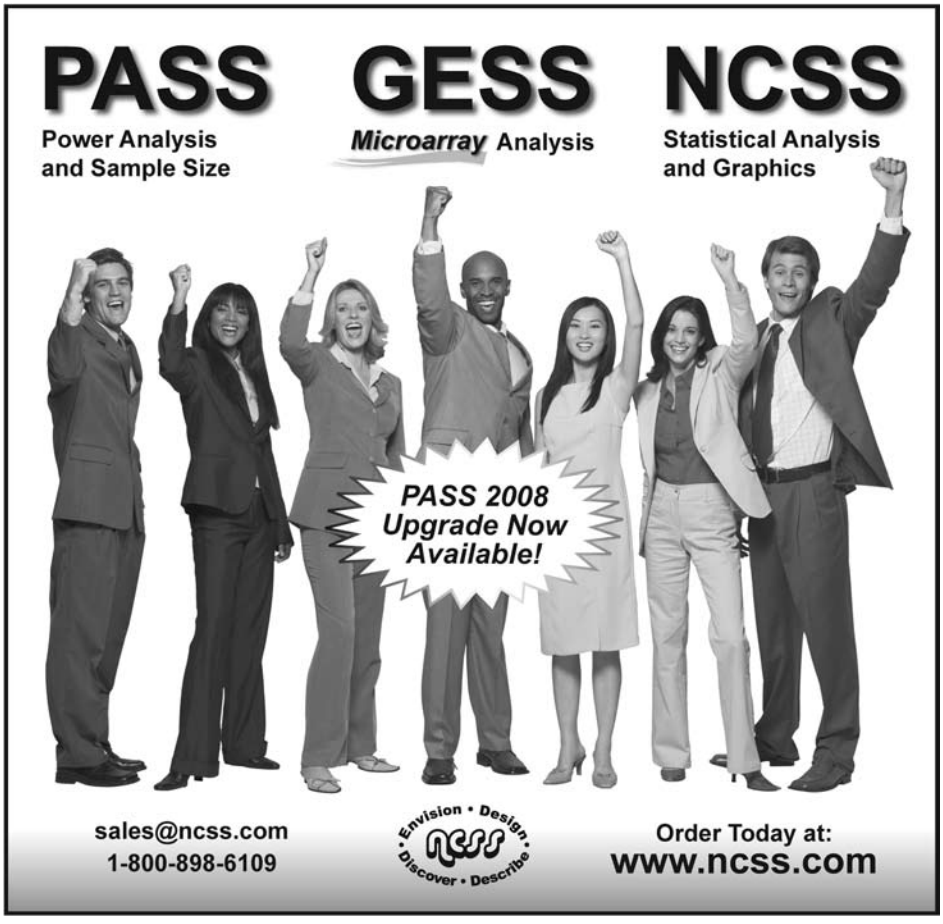
Back at home, my dad recently ran into Mr. Riley. They exchanged the usual pleasantries and Mr. Riley asked about me. I was shocked that he remembered me. It's funny how the kid who made a deal all those years ago to take the "easy" math classes ended up not only working with numbers, but also shaping the way those numbers are collected, analyzed, and interpreted.

Mr. Riley probably wasn't too surprised, but thinking back on it, I sure am. My first love will always be understanding people, but I have since learned that's a hard love to follow without numbers. ■

AIMSCS Inspires Students to Pursue Statistics

Institute tries to create world forum for Statistics Olympiad

Although statistics is a young discipline, it has grown to be an essential tool for all areas of human endeavor in the last century. Indeed, there is demand by government, industry, and academia throughout the world for statisticians to help in the decisionmaking process. Therefore, it is one of the aims of the C. R. Rao Advanced Institute of Mathematics Statistics and Computer Science (AIMSCS) to encourage talented young students to pursue statistics careers. To create awareness of statistics and encourage those with an aptitude for numerical reasoning to study statistics, C. R. Rao suggested conducting the Statistics Olympiad, similar to the Mathematical Olympiad.



A team of statisticians led by T. J. Rao and S. Bendre organized the first Statistics Olympiad in June of 2009 by administering tests to about 270 students at the high-school and junior college levels throughout Hyderabad and Visakhapatnam, India. The questions were framed to test the ability of students to cross-examine data, detect the misuse of statistics, and read tables and charts. A special grading scheme helped choose the top 20 students with an aptitude for statistical reasoning and the ability to deal with numbers.

These students were honored last year on June 29, the birth date of statistician P. C. Mahalanobis and Statistics Day in India. During the ceremony, a booklet was distributed giving biographical accounts of Mahalanobis, C. R. Rao, and S. R. S. Varadhan. The booklet was meant to serve as inspiration to aspiring statisticians.

Encouraged by the success of the first Olympiad, the second Statistics Olympiad was held on June 5. Again, the top scorers were honored on Statistics Day.

AIMSCS is setting up a committee in collaboration with the University of Hyderabad to test students from more schools throughout India and to explore creating a world forum for the Statistics Olympiad. Ideas and suggestions for implementing this project may be sent to S. B. Rao, AIMSCS director, at *siddanib@yahoo.co.in*. ■

NC State Hosts EDGE 2010

Kimberly Weems

The twelfth Enhancing Diversity in Graduate Education (EDGE) Program was hosted by North Carolina State University in June. Cofounded by Sylvia Bozeman of Spelman College and Rhonda Hughes of Bryn Mawr College, EDGE is an intensive four-week program designed to equip female college graduates with the tools they need to successfully complete graduate programs in the mathematical and statistical sciences. NC State is the first research I institution to host EDGE.

Fourteen women participated in EDGE 2010 and received instruction in core areas, such as linear algebra and analysis. In addition, they were exposed to research and valuable role models through seminars, panel discussions, and mini-courses.

A typical EDGE day consisted of lectures in the morning, followed by a problem session led by graduate student mentors and lecture or panel discussion in the afternoon.

Sally Morton, past president of the ASA and chair of the department of biostatistics at the University of Pittsburgh, gave an invited lecture, titled "You and the American Statistical Association," in which she stressed the importance of becoming involved in a professional society and discussed her career as an applied statistician.

From left: Marcia Gumpertz, NC State interim vice provost for diversity and inclusion and statistics professor; Jacqueline Hughes-Oliver, NC State statistics professor; and Sharon Lubkin, NC State mathematics professor

Additionally, Carlos Castillo-Chavez, regents professor, and Joaquin Bustoz Jr., professor of mathematical biology at Arizona State University, taught a two-day mini-course on epidemiological models. The students also learned about careers and work-life balance during a panel discussion with women faculty and industry professionals. At a dinner with EDGE students and alumnae, ASA President Sastry Pantula gave useful advice about networking, National Science Foundation (NSF) Graduate Research and Postdoctoral Fellowships, and the importance of helping others as they progress in their careers.

Funded by NSF, EDGE establishes a strong mentoring and support network that continues throughout the students' graduate studies and beyond.

More than 30 EDGE participants have received doctoral degrees. For more information about the EDGE Program, visit *www.edgeforwomen.org*. ■

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August 4, 2010, from 10:00 AM – 11:45 AM

CE_34T
Advances in Data Mining: Jerome Friedman's TreeNet/MART and Leo Breiman's Random Forests
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ASA Council of Chapters

Council Prize Goes to HI Student

Sixteen members of the San Francisco Bay Area Chapter chose **Nolan Kamitaki** from Waiakea High School in Hilo, Hawaii, as the winner of the ASA Council of Chapters prize for the best use of statistics at the 2010 Intel International Science and Engineering Fair (ISEF). His project was titled "Gene Dosage and Expression in Human Lymphoblastoid Cell Lines."

Second place was awarded to Vedant Kumar from duPont Manual High School in Louisville, Kentucky, for "Accurate Prediction and Tracking of Lung Cancer."

Akshay Nathan from Lynbrook High School in San Jose, California, won third place for "A Super-Encryption Standard for Large Data Using Elementary Chaotic Cellular Automata."

The ISEF, held May 9–14 at the San Jose Convention Center, is the world's largest international pre-college science competition and annually provides a forum for high-school students from more than 40 countries to showcase their independent research.

Each year, millions of students compete in local and school-sponsored science fairs. The winners of these go on to participate in ISEF-affiliated regional and state fairs, from which the best are chosen to attend the ISEF.

The ISEF unites top young scientific minds, showcasing their talent on an international stage, enabling their work to be judged by doctoral-level scientists, and providing them the opportunity to compete for nearly $4 million in prizes and scholarships. More than 1,600 projects were entered this year.

The ASA Council of Chapters annually offers a prize for the best use of statistics in a project. The project may be purely statistical, or it may involve the intelligent use of statistical analyses or techniques in a subject-matter project.

The prizes awarded to the first-, second-, and third-place winners were $1,000, $500, and $250, respectively, plus a subscription to *CHANCE* magazine. Seven honorable mention finishers received *JMP Start Statistics: A Guide to Statistics and Data Analysis Using JMP* courtesy of SAS. Additionally, Chris Malone of Winona State University presented "The Importance of Statistics in Scientific Research" to teachers and students interested in statistics.

Next year's ISEF will be held May 8–13 in Los Angeles, California, where the prizes for statistics will be judged by members of the Southern California Chapter. ■

ASA, Bepress Partner to Publish Sports Journal

The ASA and Berkeley Electronic Press (bepress) recently partnered to publish the *Journal of Quantitative Analysis in Sports* (*JQAS*), which has been a forum for scholars on the cutting edge of research in quantitative sports analysis since 2005. As a result of the partnership, ASA members will have free electronic access.

"*JQAS* is a wonderful addition to the ASA's portfolio of journals, and we are proud to announce this partnership," said Ron Wasserstein, ASA executive director. "The journal promotes excellence in statistical research in sports, and many ASA members will enjoy reading and, in some cases, contributing to it."

"ASA's involvement with *JQAS*, its oversight of the selection of editors, and its control of the journal copyright ensure growth in the quality and stature of both the field and the journal," said Ben Alamar, *JQAS* editor. "The involvement of the ASA's Section on Statistics in Sports will be particularly helpful."

Both the ASA and bepress bring their unique expertise, which will expand the journal's readership and breadth and depth of the content. Alison Denby, publisher of bepress, cited the value of the society-publisher partnership. "These partnerships pair strength with strength. The ASA and its membership will provide high-quality content for the journal, and bepress brings its online publishing expertise to bear on making *JQAS* accessible and discoverable." ■

Technometrics Highlights

Profile Monitoring Highlighted in August Issue

David M. Steinberg, *Technometrics* Editor

Statistical process control, first developed by Walter Shewhart some 80 years ago, has proved to be of great value for monitoring industrial processes. Advances in data collection capabilities have generated new challenges for process monitoring and stimulated much recent research in creating appropriate monitoring procedures.

One interesting direction is profile monitoring, in which the characteristic tracked is actually a relationship (or profile) between two or more variables. For example, an important property of an aluminum electrocatalytic capacitor (AEC) is its dissipation factor, which is measured as a function of temperature across a rather wide range of temperatures. It is the entire temperature-dissipation factor relationship that is of interest for process monitoring.

The feature article in the August issue, by **Peihua Qiu**, **Changliang Zou**, and **Zhaojun Wang**, is "Nonparametric Profile Monitoring by Mixed Effects Modeling." This article extends previous methods for profile monitoring in two important directions. First, the authors use nonparametric regression to model the profile, whereas most methods have been limited to parametric models. Second, the approach includes possible correlation among the measurements within each profile (a common feature in actual profile data), whereas current approaches treat these as statistically independent.

The authors propose a novel control chart that incorporates local linear kernel smoothing and uses a nonparametric mixed-effects model to represent within-profile correlation. The chart also accounts for serial correlation between profiles via an exponentially weighted moving average scheme. The proposed control chart is fast to compute and convenient to use. Numerical examples show it works well in various cases, including the AEC production process.

The article is accompanied by several excellent discussions and a rejoinder by the authors, which help illuminate further areas of application and possible directions for future research. The discussants are **Daniel Apley**, **Hugh Chipman**, **R. Jock MacKay**, **Stefan Steiner**, **Fugee Tsung**, **William Woodall**, **Jeffrey Birch**, and **Pang Du**.

The *Technometrics* session at JSM featured this article and discussions.

Gauge reproducibility and repeatability studies are widely used to assess measurement system variation. In their article, "Leveraged Gauge R&R Studies," **Ryan Browne**, **Jock MacKay**, and **Stefan Steiner** propose an alternative study design that offers improved estimates of relevant variance ratios. The new plan, called a leveraged gauge R&R study, is conducted in two stages. In the baseline stage, a sample of parts is selected and each part is measured once. The extreme parts are then deliberately selected for the second stage and measured a number of times by each operator. For a fixed number of operators and total number of measurements, the authors show that good performance is obtained from leveraged plans with a baseline size roughly half the total number of measurements. The article demonstrates the advantages of the leveraged over the standard plan by comparing the standard deviations of the estimators of the parameters of interest.

The next two articles present methods for computing tolerance limits. The first, by **David Hoffman**, is titled "One-Sided Tolerance Limits for Balanced and Unbalanced Random Effects Models." The approach is valid for general random effects models with normal data, in both balanced and unbalanced data scenarios. It exploits an approximation to the noncentral t distribution and modified large

sample methods for constructing confidence bounds on functions of variance components. An alternative bootstrap-adjusted limit also is proposed. Simulation results indicate the analytical limit is generally somewhat conservative, but is often less conservative than an existing analytical approach and may provide substantially shorter interval lengths, particularly when the sample size is small and the desired confidence is high. The bootstrap-adjusted limit generally maintains the nominal confidence level and yields shorter interval lengths, but it can be anticonservative for small sample sizes.

For a product manufactured in large quantities, tolerance limits play a fundamental role in setting limits on the process capability. The next paper, by **Takeshi Emura** and **Hsiuying Wang**, is titled "Approximate Tolerance Limits Under Log-Location-Scale Regression Models in the Presence of Censoring." Existing methods for setting tolerance limits in life test and reliability experiments focus primarily on one-sample problems. This work extends tolerance limits to life tests experiments that include covariates. A method constructing approximate tolerance limits is proposed for the widely used log-location-scale regression models. The method is based on an application of the large sample theory of maximum likelihood estimators, which is modified by a bias-adjustment technique to enhance small sample accuracy. The proposed approximate tolerance limits are shown asymptotically to have nominal coverage probability under the assumption of "independent censoring," which includes type I and type II schemes. Simulation studies are conducted to assess finite sample properties.

The method is illustrated with two data sets. R code for implementing the proposed method is available at *http://pubs.amstat.org/loi/tech*.

Javier Cano, **Javier M. Moguerza**, and **David Ríos Insua** present "Bayesian Reliability, Availability, and Maintainability Analysis for Hardware Systems Described Through Continuous Time Markov Chains." Reliability, availability, and maintainability (RAM) modeling is an important aspect in the analysis of hardware systems. Markov models are often useful, especially for systems that evolve through several states, some of which are ON states, in which the system continues to function, and the rest are OFF states. This article provides RAM analyses of such systems within a Bayesian framework, addressing both short-term and long-term performance. The approach is illustrated via analysis of data from a university enterprise resource planner.

The generalized Pareto distribution (GPD) has been widely used to model exceeding thresholds, such as flood levels of rivers. However, it is difficult to obtain good estimates of the parameters of the GPD. In "Improving on Estimation for the Generalized Pareto Distribution," **Jin Zhang** extends an earlier *Technometrics* paper by Zhang and Stephens (2009) that proposed a new estimation method for parameters of the GPD. That method is free from the theoretical and computational problems suffered by traditional estimation approaches. In terms of estimation efficiency and bias, it outperforms other existing methods in common situations, but it may perform poorly for heavy-tailed distributions. This article develops improvements to the method that significantly improve its ability to adapt.

Multivariate binary data arise in a variety of settings. In "Likelihood Analysis of Multivariate Probit Models Using a Parameter Expanded MCEM Algorithm," **Huiping Xu** and **Bruce A. Craig** propose a practical and efficient computational framework for maximum likelihood estimation of multivariate probit regression models. Their approach uses the Monte Carlo EM (MCEM) algorithm, with parameter expansion to complete the M-step, to avoid direct evaluation of intractable multivariate normal orthant probabilities. The parameter expansion not only enables a closed-form solution in the M-step, but also improves efficiency. Using simulation studies, the authors compare their approach to the MCEM algorithms developed by Chib and Greenberg (1998) and Song and Lee (2005), as well as the iterative approach proposed by Li and Schafer (2008). The new approach is illustrated by application to a study on drivers' perceptions of headlight glare.

The final article is by **Shifeng Xiong** and titled "Some Notes on the Nonnegative Garrote" (NG). The main result is that, compared with other penalized least squares methods, the NG has a natural selection of penalty function according to an estimator of prediction risk. Furthermore, two natural and easy-to-compute estimators of the tuning parameter are proposed corresponding to AIC and BIC, respectively. This indicates that, to select tuning parameters, it may be unnecessary to optimize a model selection criterion multiple times. Several reasonable NG estimators with natural tuning parameters are proposed for settings with multicollinearity and other problems. The good properties of the NG are illustrated by simulation results. The NG also is used to analyze data from a study that was conducted to determine the composition of acid rain. ■

Statistical Analysis and Data Mining Highlights

Prize-Winning Articles Featured

Joe Verducci, *Statistical Analysis and Data Mining* Editor

This issue contains an application on drug safety, two papers on clustering, and three prize-winning works.

The application features a method to account for covariates when searching for binary risk factors. The first clustering paper compares 40 criteria for clustering, both in terms of their relative performance over 1,080 designed data sets and their agreement with an external clustering considered a gold standard. The second offers a novel method, called the "snake," to provide visual diagnostics along a near-minimal path.

The three prize-winning works come from two competitions: the Institute for Operations Research and Management Sciences (INFORMS) 2009 Data Mining Contest and the ASA's Statistical Learning and Data Mining (SLDM) prizes for best student papers.

In the opening paper, **Ola Caster**, **Niklas G. Norén**, **David Madigan**, and **Andrew Bates** propose shrinkage logistic regression as a supplement to contingency tables for discovering binary transaction patterns that may be camouflaged by covariates. When applied to adverse drug reaction data collected by the World Health Organization, the method discovers combinations of risk factors faster than methods based on frequent sets, but may fail to identify established drug safety concerns. The key is that logistic regression provides the ability to distinguish direct association from indirect association caused by confounding.

Lucas Vendramin, **Ricardo JGB Campello**, and **Eduardo R. Hruschka** distinguish two types of criteria for validity of clusterings: optimization-like, which assign a real value to any partitioning/clustering of the objects, and difference-like, which assess the relative performance along a nested sequence of clusterings. A novel transformation of a difference-like criterion into an optimization-like criterion enables fair comparison. Five methods are used to cluster each data set. For each clustering, the Jaccard coefficient measures the agreement of the clustering with the external standard; this is compared to each criterion by calculating the Pearson correlation over the five clusterings. The criteria are judged by their average correlation over groups of data sets. Performance of the criteria varies somewhat with number of clusters and dimension. Overall, versions of the silhouette width criterion perform best over most scenarios investigated here.

Adam Petrie and **Thomas Willemain** employ techniques from the traveling salesman problem to construct a near-minimal path that traverses all data points in Euclidean space. By plotting individual segment lengths versus their position along the snake path, an analyst can visually detect features such as the relative density of regions and the number of modes. The technique is illustrated on a variety of artificial and real-world data sets.

The INFORMS 2009 data mining contest posed two problems based on hospital patient information: identify future transfers to tertiary hospitals and predict patient mortality in hospital. **Jianjun Xie** and **Stephen Coggeshall** use stochastic gradient boosting decision trees to identify key variables and arrive at their predictions, whose accuracies substantially exceed those achieved by logistic regressions, both here and as reported in similar studies. Their paper describes the practical difficulties imposed by the data and the decisions they made when implementing the procedure.

The SLDM best student papers involve new procedures for classification. **Mu Qiao** and **Jia Li** propose a "two-way" mixture model in each class, so that observations are partitioned into components and variables are partitioned into clusters. Clustering of variables may be specific to each component or common to a class. Each cluster of variables is assumed to have a Gaussian distribution with the same mean for each variable, and perhaps a structured (e.g., diagonal) covariance. On three real data sets, classification based on the Gaussian two-way model performed as well as or better than using a support vector machine.

The last paper, by **Seo Young Park**, **Yufeng Liu**, **Dacheng Liu**, and **Paul Scholl**, focuses on computationally efficient multicategory classification when the number of classes is large. The proposed composite least squares (CLS) method uses a convex combination of two types of squared loss functions to improve on proximal SVM and yet have its computational complexity grow linearly with the number of classes. The CLS method also produces closed-form formulas to predict class probability.

As a whole, the works give good perspective on current research at various levels of application and methodology. Computer scientists and statisticians are finding much common ground, and it is informative to trace the roots of each through the references provided. ■

Journal of the American Statistical Association Highlights

June *JASA* Gives Advice on Statistical Methods for Observational Studies

A recent article in *Science News* ("Odds Are, It's Wrong") implicates the field of statistics in the rash of scientific results that fail to hold up under scrutiny. The ASA and International Statistical Institute responded with a letter to the editor pointing out that the misuse of statistical methods is the culprit.

Observational data are particularly susceptible to misinterpretation and frequently result in findings that time reveals to have been false positives. Thus, **Paul Rosenbaum's** paper in this issue's Theory and Methods (T&M) section, "Design Sensitivity and Efficiency in Observational Studies," is particularly timely.

Rosenbaum notes that an observational study draws inferences about the effects caused by a treatment when subjects are not randomly assigned to treatment or control, as they would be in a randomized trial. After adjusting for imbalances in measured covariates, the key source of uncertainty in an observational study is due to the possibility that subjects were not comparable prior to treatment in terms of some unmeasured covariate. If there is an unmeasured covariate that differs between treatment groups, then differing outcomes in treated and control groups are not necessarily due to the treatment. A sensitivity analysis sheds light on the magnitude of the departure from random assignment needed to alter the qualitative conclusions of the study. Two quantitative measures, the power of a sensitivity analysis and the design sensitivity, anticipate the outcome of a sensitivity analysis under an assumed model for treatment effect.

In practice, statisticians often choose to use statistical methods for observational studies based on their knowledge of what would be a powerful technique in a randomized experiment. Rosenbaum argues that this common practice is a mistake. The design sensitivity for such methods can be great, meaning that these procedures—though optimal for randomized experiments—need not be the best procedure under more realistic assumptions.

Rosenbaum's article will be available for free download at *http://pubs.amstat.org/loi/jasa* for a limited time.

Another T&M article addresses DNA minicircles. What is a DNA minicircle? Why are they of interest? You can find answers to these questions by reading "Second-Order Comparison of Gaussian Random Functions and the Geometry of DNA Minicircles," by **Victor M. Panaretos**, **David Kraus**, and **John H. Maddocks**.

The authors' research is motivated by the problem of determining whether the mechanical properties of short strands of DNA are influenced by their base-pair sequences. Although such influences are anticipated, this phenomenon has not yet been observed in 3D electron microscopy data. It transpires that insight into the relationship between sequence structure and mechanical properties of DNA can be addressed by testing whether two samples of continuous, zero-mean, iid Gaussian processes on the interval [0, 1] have

Book Reviews

Chaos and Coarse Graining in Statistical Mechanics
Patrizia Castiglione, Massimo Falcioni, Annick Lesne, and Angelo Vulpiani

A First Course in Bayesian Statistical Methods
Peter D. Hoff

Longitudinal Data Analysis
Garrett Fitzmaurice, Marie Davidian, Geert Verbeke, and Geert Molenberghs (Eds.)

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the same covariance structure. In this paper, the authors show that testing whether DNA shape is determined by base-pair sequence composition involves aspects of ill-posed inverse problems and they develop an approach based on a Karhunen–Loeve approximation of the Hilbert–Schmidt distance of certain empirical covariance operators. They apply their method to a data set of DNA minicircles and the test suggests base-pair sequence makeup is related to DNA shape.

Applications and Case Studies

The Applications and Case Studies (ACS) section includes articles with statistical applications to weather forecasting, analysis of voting blocs in England, musical theory, and assessing the impact of a major anti-tobacco intervention.

The feature article, "Probabilistic Weather Forecasting for Winter Road Maintenance," by **Veronica Berrocal**, **Adrian Raftery**, **Tilmann Gneiting**, and **Richard Steed**, demonstrates how the use of probabilistic forecasting allows for better decisionmaking. They use forecasts regarding temperature and precipitation on a stretch of U.S. I-90 in Washington to decide whether to apply anti-icing treatments. The weather forecasts are good, and traditional practice has been to use the mean of the forecast distribution to make the decision. The authors note, however, that a good decision rule must balance the large cost of a road closing (an error that occurs if anti-icing is not applied when it should be) and the relatively smaller cost of an inappropriate anti-icing treatment. Having a probability distribution on the forecasts allows one to optimize this decision. They find that, over a typical winter season, optimal decisionmaking would reduce expected loss over a naïve strategy from $23 million to $11.5 million. And that's just one slice of highway in one state.

This article is also available for free download for a limited time.

Another ACS article of interest is "Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program," by **Alberto Abadie**, **Alexis Diamond**, and **Jens Hainmueller**. The program referenced in the title was a voter initiative, Proposition 99, passed in California in 1988. It called for a tax increase on cigarettes and required the revenue from the tax to be used in consumer education programs and anti-smoking advertisements.

Per capita cigarette consumption dropped following implementation of the program. However, consumption was already dropping before 1988, and it also dropped in other states before and after 1988. Because of this, it is not obvious what the impact of the proposition was.

To assess the impact, the authors created a "synthetic control" to which the post-1988 California experience can be compared. The synthetic control is a weighted average of other states with the weights chosen so the composite matches California per capita cigarette consumption in each year up to 1988 and also matches California on a range of other pre-1988 characteristics. By comparing the synthetic California post-1988 outcomes to the real California's post-1988 outcomes, the authors concluded that the tobacco control program led to a drop of 25 packs per person relative to what would have been observed without the program.

There are many other interesting articles in the June issue of *JASA*, not to mention the usual array of informative book reviews. The full list of articles and books under review can be found at *http://pubs.amstat.org/loi/jasa*. ■

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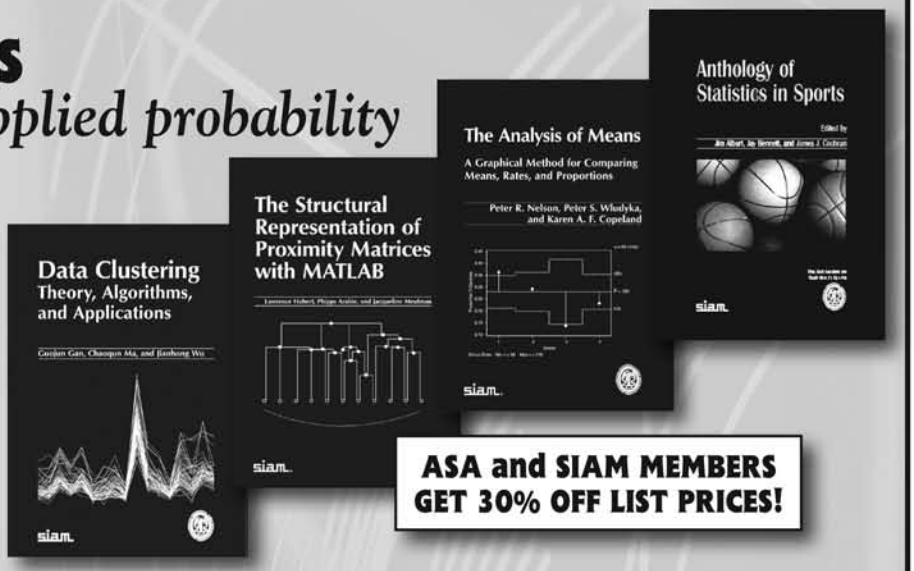

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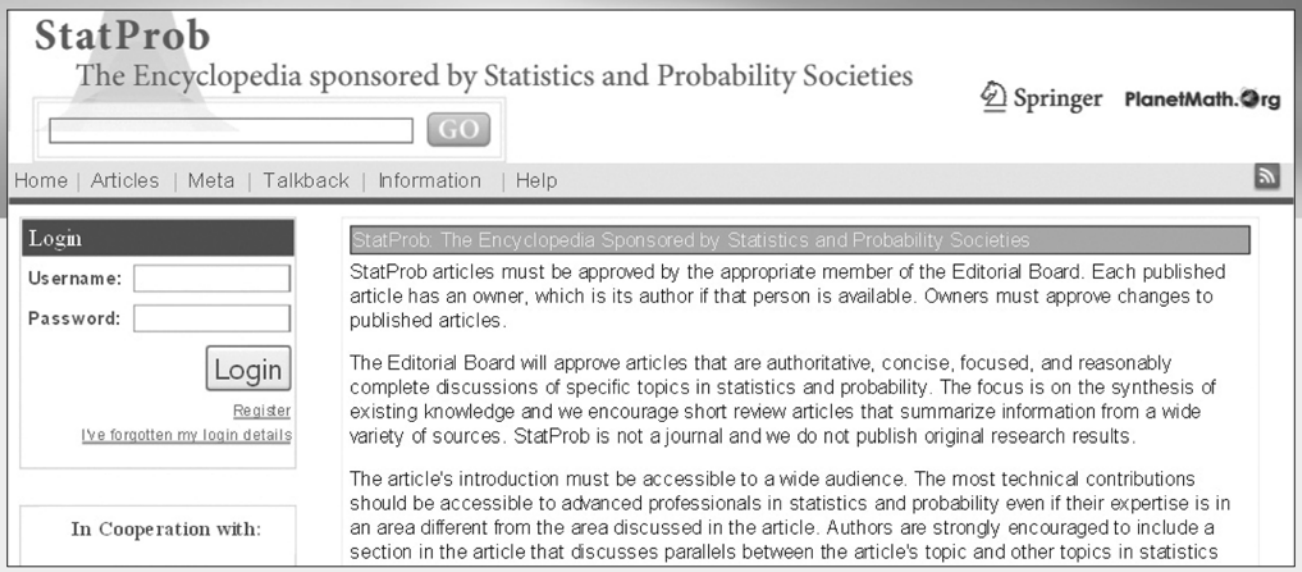

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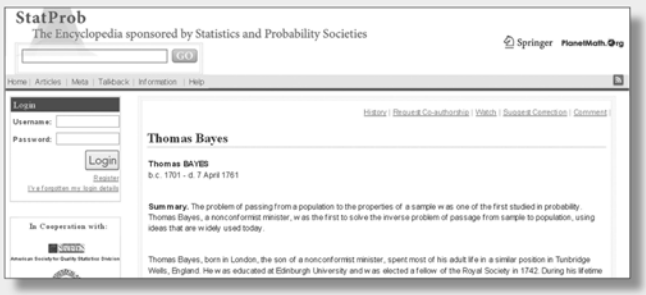

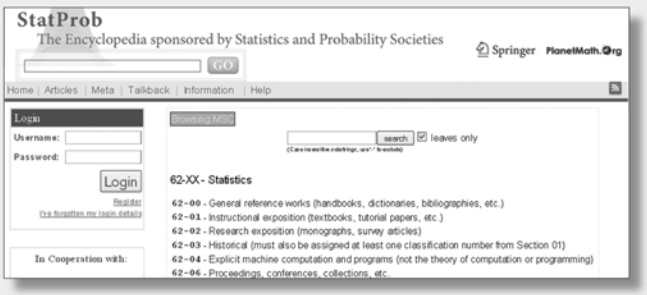

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More on Graduate Education

Keith Crank, ASA Research and Graduate Education Manager

Last month, I wrote about *The Path Forward: The Future of Graduate Education in the United States*, a recent report from the Educational Testing Service (ETS) and the Council of Graduate Schools (CGS). I expressed my disappointment with the report, especially with its authors' failure to use data appropriately. This month, I want to bring up one more issue with the data in the report and relate it to what's going on in statistics and biostatistics. (The report is available at *www.fgereport.org*.)

On Page 14, the authors write that there was a 47% increase in the number of master's degrees awarded and a 26% increase in the number of PhDs awarded between 1995 and 2005. The authors go on to say (Page 17) that, between 2008 and 2018, there is a projected increase of 18% in the number of jobs requiring a master's degree and 17% in the number of jobs requiring a PhD. So, if the number of people earning (master's) degrees is increasing at an annual rate of more than 4% and the number of jobs for them is increasing at a rate of less than 2%, why should we be putting more resources here?

In terms of actual numbers, rather than percentages, the authors note (Page 14) that more than 650,000 degrees were awarded at the master's and doctoral levels, combined, in 2007. They go on to write that, between 2008 and 2018, projections indicate there will be an additional 2.5 million jobs that require either a master's or doctoral degree. If the number of degrees awarded stays constant over this time period, there will be 6 million new recipients of these graduate degrees (assuming everyone who earns a PhD was also awarded a master's degree). This means 3.5 million people would need to be absorbed into jobs that currently exist. While this may be feasible, the authors do not comment about the number of current jobs that are unfilled or become vacant due to retirement or attrition each year.

In statistics and biostatistics, the growth in degrees awarded is even more extreme. As I wrote in my January 2008 *Amstat News* column, the growth in master's degrees awarded between 2000 and 2005 was more than 60% (readers pointed out the growth was actually more than 70%). Similarly, for PhDs, the growth over that time period exceeded 40%. The Bureau of Labor Statistics (BLS) projects growth in the number of statistics jobs (which includes biostatistics) at only 13%, so why do I still think we need to increase the size of our graduate statistics and biostatistics programs?

First, production has not caught up with demand. 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. And even in the current economy, salaries appear to be at least stable.

Second, I don't think the BLS numbers capture the right information. The job title is one area in which BLS misses a large number of statisticians and biostatisticians. As an example, less than two-thirds of the job titles for nonfaculty academic biostatisticians included the word "statistician" or "biostatistician" in the 2009 salary survey of biostatisticians. Those without the word statistician or biostatistician are jobs BLS would not classify under the statistician category. The statistician category does not include statistics and biostatistics faculty, either.

Another area in which BLS would underestimate demand for statisticians (or workers more generally) is in areas that don't exist now, but will appear and grow rapidly between now and 2018. (An example over the past decade is the Internet and search engines.) Finally, companies with headquarters outside the United States, who add offices and jobs here, also are likely to be missed in the BLS projections.

I believe our discipline (statistics and biostatistics) is still one of growing demand. Even though the supply of statisticians has grown rapidly over the past 10 years, it has not caught up with demand yet. While the same may be true of graduate education more generally, the report from the ETS and CGS did not provide cogent arguments for why this should be the case.

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

Crank

MASTER'S PROGRAM

Are you a student who has recently graduated with a master's degree in statistics? Highlight the advantages of having a master's degree in an upcoming issue of *Amstat News*. Or, if you have suggestions for future articles you would like to read, email your ideas to *Amstat News* Managing Editor Megan Murphy at *megan@amstat.org* or Research and Graduate Education Manager Keith Crank at *keith@amstat.org*.

Biostatisticians: Do You Know What They Do?

Rebecca Shackelton Piccolo, Project Manager/Biostatistician at New England Research Institutes

Biostatistics (the application and development of statistical methods to medical and public health topics) is a growing and rewarding field, but many people are unaware of its existence. People see the work of biostatisticians often, but may not be aware of the role biostatisticians play in clinical research.

Biostats 101

Most people do a double take when I say I'm a biostatistician and ask, "What in the world does a biostatistician do?" They probably are conjuring the image of numbers fleeting by as I furiously type away at a keyboard, trying to make sense of it all. While there is a kernel of truth to this scenario, the field of biostatistics is far more applicable, timely, and meaningful than most people realize

Meaningful Applications

Biostatisticians are needed in a variety of health-related fields. At my company, statisticians work on clinical trials, patient registries, epidemiologic studies, health services and policy, and/or media and communications research. In all these fields, we use statistical methods to answer important and timely health-related questions such as the following:

- What effect has Massachusetts health care reform had on uninsurance levels and access to primary health care?
- What are the greatest contributors to racial/ethnic disparities in diabetes? Is it genetics/family history? Lifestyle factors? Socioeconomic status and position in society? Environmental factors?
- Do doctors differentially diagnose coronary heart disease by gender, even when the signs/symptoms presented are exactly the same?
- How do doctors deal with time pressures to see more patients per day in different health care systems?

These are just a few of the public health topics I have conducted analyses on in the past year. The results that my colleagues and I have produced have the ability to shape treatments, policies, and other health decisions.

Interdisciplinary Team Work

By necessity, biostatisticians work as part of a team of investigators to study a public health question. As we work closely with subject-matter experts, biostatisticians must be able to clearly communicate results to ensure our findings make sense in a larger context. Working with such a variety of people (e.g., sociologists, epidemiologists, data managers, primary care physicians, and specialists) has given me the opportunity to learn about new diseases and different populations. It also has given me new perspective on the many areas to which biostatistics are applied.

Evolving Roles in Research

My responsibilities as part of these interdisciplinary teams include performing analyses and communicating statistical results. However, I've also had the opportunity to take part in many other aspects of studies, from the planning stages (e.g., sample size and power calculation, writing of statistical analysis, instrument development, and grant writing) to study close-out (e.g., writing articles for medical journals and creating posters and presentations for medical conferences). My latest role has been that of a project manager, which requires balancing my quantitative abilities with my communication skills to manage a team throughout the life of a project.

To those of us who have chosen biostatistics as a profession, it is much more than "number crunching." We get to apply our quantitative skills to meaningful, timely, and diverse public health questions. The demands of working with a multidisciplinary team provide challenges, but ultimately lead to knowledge, growth, and fulfillment. Most of all, biostatisticians get to apply their problemsolving, number-crunching skills to better people's health and well-being throughout the world. ■

JSM 2011 Invited Sessions Sought

David Judkins, JSM 2011 Program Chair

For those who enjoy tropical weather, sunny beaches, and trendy nightlife, Miami Beach, Florida, offers one of the best environments in the continental United States. Fortunately, that is where we are headed in 2011 for the Joint Statistical Meetings. (Let's just hope the hurricanes give us a wide berth.)

It is time to start putting together your ideas for invited sessions. The theme for 2011 is "Statistics: An All-Encompassing Discipline." I think it is a great theme, so let's get some sessions about playing in other people's backyards.

As all the old-timers know, it is a great pleasure and honor to be an invited speaker at JSM. These slots are always hard to get, but taking the initiative can work in your favor. If you have solid new work in an important field, know some of your competitors working in the same field, and are willing to reach out to them to forge a session with some energy in it, then you have a chance to snag an invited slot. You just need to put your ideas together and then find a section to sponsor you.

Invited sessions can be posters, papers, or panels. An invited poster session usually consists of 10 to 12 participants. An invited paper session includes two to six speakers and/or discussants. An invited panel session includes three to six members who are able to debate each other on a particular topic. Note that invited sessions with multiple papers from the same institution are discouraged. A topic-contributed session is more appropriate for single-institution sessions.

To propose an invited session, start by deciding on a theme for it. Then shop your theme around the people you know are active in the area. You also can use specialized list servers for this purpose, but the quality of submissions tends to be more variable with that approach and you might end up in the awkward position of turning ideas down.

Once you have a theme and several top people interested in contributing to a session, write an abstract. The session abstract should briefly say why the theme is interesting and important, list the proposed participants, and, if necessary, support the participants' qualifications to speak on the topic. The abstract may be accepted as-is by the program chair for your section, but there is a good chance it will be put to a vote by the entire JSM program committee. Members of the program committee won't be familiar with every branch of statistics, so make the abstract resonate for everyone to have the best chance of success.

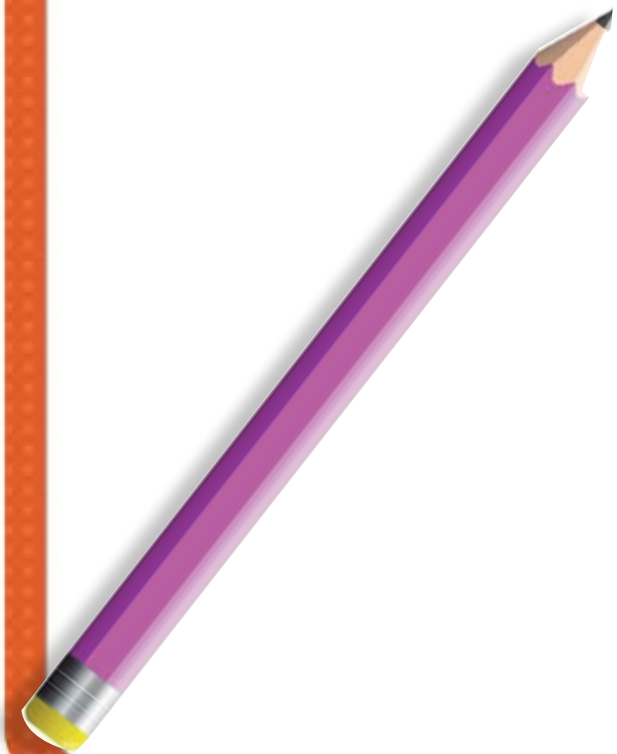
In addition to ASA sections, you may submit your ideas to the partner societies: International Biometric Society (ENAR and WNAR), Institute of Mathematical Statistics, Statistical Society of Canada, International Chinese Statistical Association, and International Indian Statistical Association. There are also ASA committees and outside organizations that may sponsor invited sessions. These may be found at *www.amstat.org/committees/committeelist.cfm*.

Please keep the speaker guidelines in mind, which can be found at *www.amstat.org/meetings/jsm/2010/index.cfm?fuseaction=guidelines*. They will be the same in 2011 as they are for this year.

Talk to potential speakers early and make sure they are not double committing. It is often difficult to find people who are doing new research, but are far enough along in that research that they are sure to be done by June of 2011. We don't want invited papers that either encore results of 2010 or preview ideas for 2012. We want freshly completed important research for 2011.

If you have ideas that don't fit any of the sections, you may send them directly to me at *DavidJudkins@westat.com*, but I have little latitude and will need to turn down most, if not all, such submissions. Also, ideas for invited poster sessions should go to Benmei Liu at *BenMeiLiu@hotmail.com*. ■

ASA 2010 POSTER AND PROJECT WINNERS

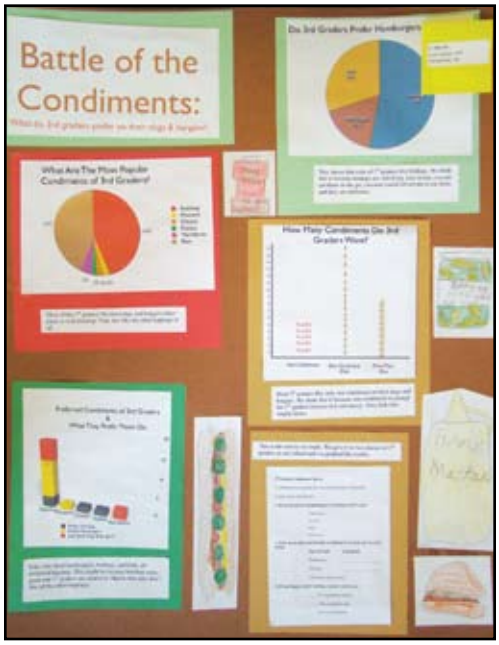


The American Statistical Association is pleased to announce the winners of the 2010 poster and project competitions. First-place winners received $200, a plaque, a plaque for their school, and graphing calculators from Texas Instruments. Second-place winners received $100 and a plaque; third-place winners received $50 and a plaque; and honorable mentions received certificates.

The competitions are directed by the ASA/NCTM Joint Committee on Curriculum in Statistics and Probability. Information about the competitions—including entry forms, instructional webinars, and a rubric of how the posters and projects are judged—is available at *www.amstat.org/education* via the K–12 link.

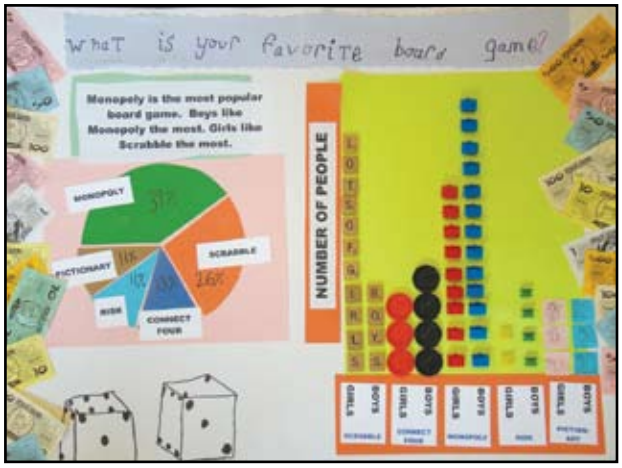
2010 POSTER COMPETITION WINNERS

GRADES K-3



FIRST PLACE

Bradley Carter, Marissa Folkert, Jacob Larson, Donovan Lance, and Elizabeth Visscher
Battle of the Condiments
Holland Public Schools, Holland, Michigan



SECOND PLACE

Madison Avery
What's Your Favorite Board Game?
Collins Elementary, Grand Rapids, Michigan

THIRD PLACE

Sam Boezwinkle
Lotsa Pasta
Thornapple Elementary, Grand Rapids, Michigan

2010 POSTER COMPETITION WINNERS

Poster Competition Judges

Linda Quinn of John Carroll University directed the poster competition. Neal Rogness and John Gabrosek of Grand Valley State University (GVSU) directed the judging of the posters. Judges included the following:

David Coffey, Mathematics, GVSU

Dan Frobish, Statistics, GVSU

Marcia Frobish, Mathematics, GVSU

John Gabrosek, Statistics, GVSU

Jennifer Kaplan, Statistics and Probability, Michigan State University

Nancy Mack, Mathematics, GVSU

Whitney Minor, Statistics, GVSU

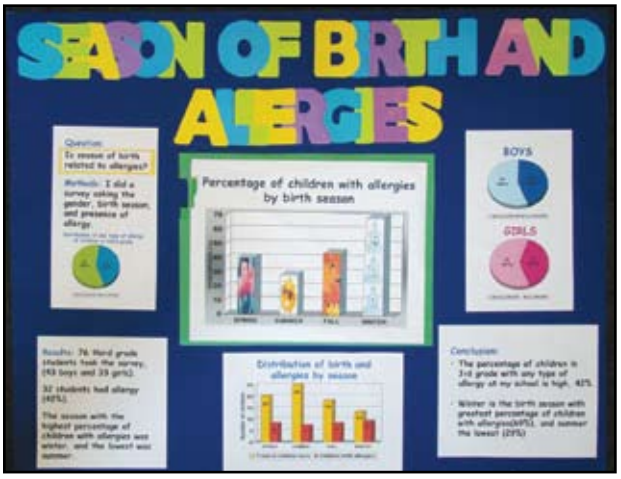
Matt Race, Annapolis High School, Dearborn Heights, Michigan

Mary Richardson, Statistics, GVSU

Neal Rogness, Statistics, GVSU

Oscar Saucedo, Padnos College of Engineering and Computing, GVSU

Gerald Shoultz, Statistics, GVSU

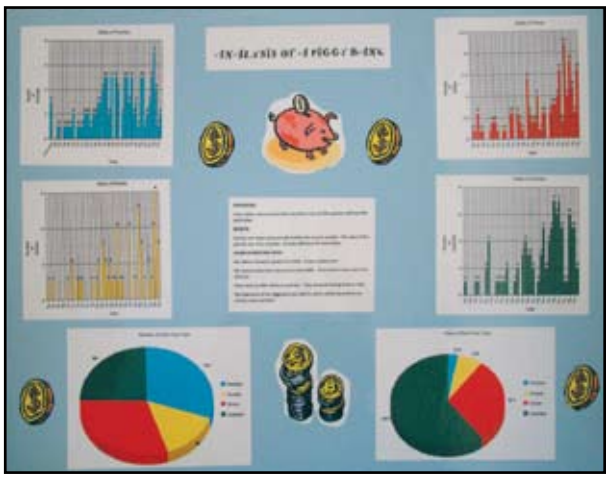


HONORABLE MENTION

Julian Perez
Season of Birth and Allergies
Rydal Elementary, Huntingdon Valley, Pennsylvania

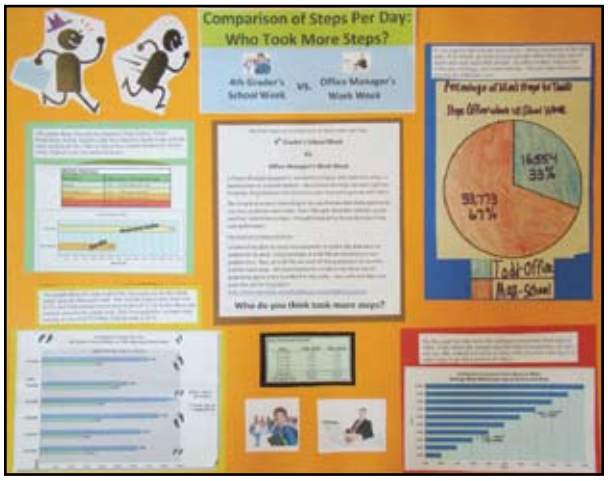
HONORABLE MENTION

Charlotte Nadel
Analysis of a Piggy Bank
Rydal Elementary, Huntingdon Valley, Pennsylvania



2010 POSTER COMPETITION WINNERS

GRADES 4–6



FIRST PLACE

Max Mairn
Comparison of Steps Per Day: Who Took More Steps?
Thornapple Elementary, Grand Rapids, Michigan

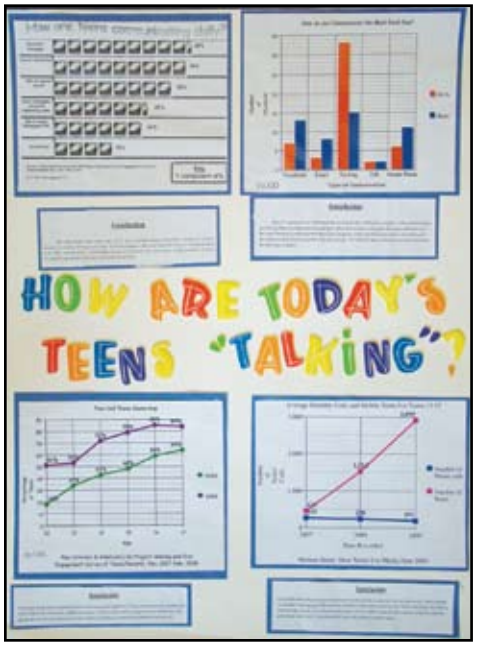
SECOND PLACE

Madeline Paciorek
Is My Hamster Lazy or A-Maze-Ing?
Thornapple Elementary, Grand Rapids, Michigan

THIRD PLACE

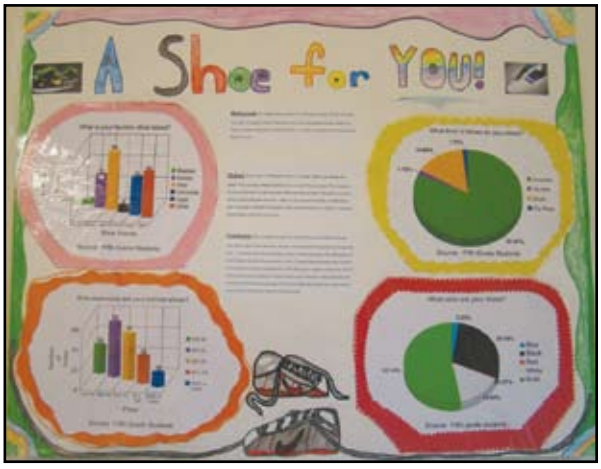
Camryn Wojtowicz
Which Brand of Paper Towel Is the Better Bargain?
Lied Middle School, Las Vegas, Nevada

2010 POSTER COMPETITION WINNERS



HONORABLE MENTION

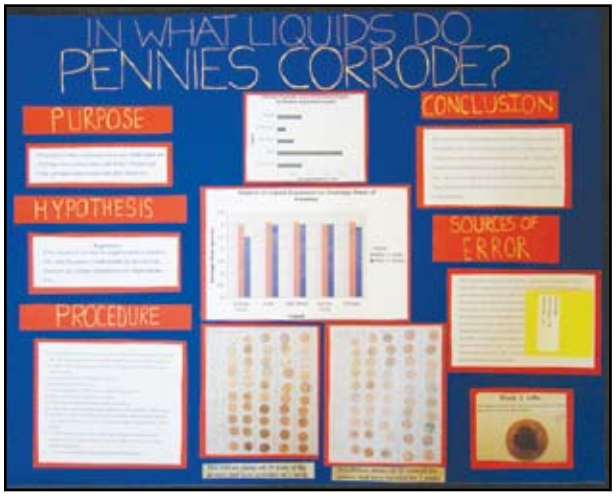
Maren Tornay, Sydney Hirsch, and Madison Coughlin
How Are Today's Teens 'Talking'?
Chalk Hill Upper Elementary School, Monroe, Connecticut



HONORABLE MENTION

Andy Nguy, Joseph Lee, and Shawn Biju
A Shoe for You
Murray Avenue School,
Huntingdon Valley, Pennsylvania

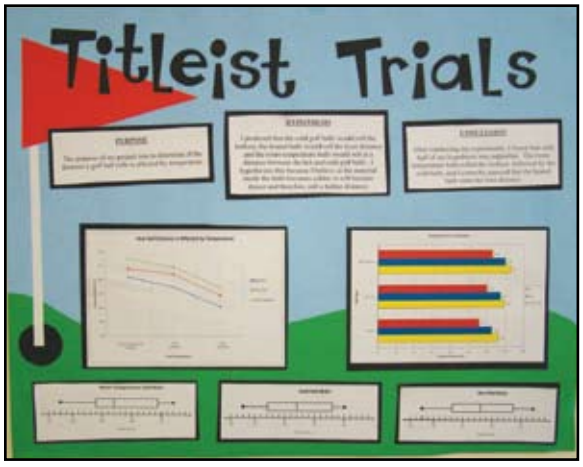
GRADES 7-9



FIRST PLACE

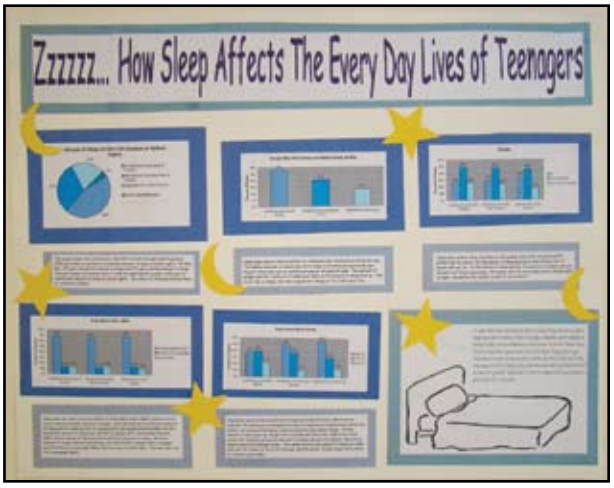
Hanel Baveja
In What Liquids Do Pennies Corrode?
Clague Middle School, Ann Arbor, Michigan

2010 POSTER COMPETITION WINNERS



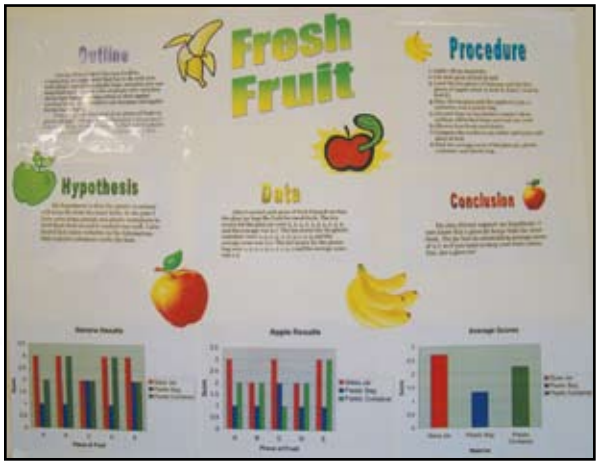
SECOND PLACE

Steven Richards
Titleist Trials
Saltsburg Middle School, Saltsburg, Pennsylvania



THIRD PLACE

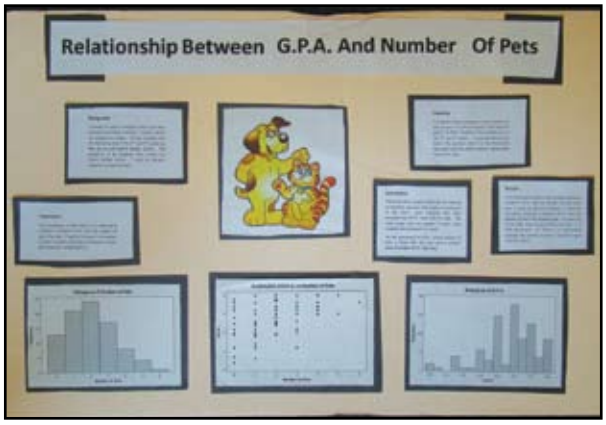
Elisa Shibley
Zzzzzz … How Sleep Affects the Everyday Lives of Teenagers
Black River Public School, Holland, Michigan



HONORABLE MENTION

Chelsey Koren
Fresh Fruit
Blairsville Middle School, Blairsville, Pennsylvania

2010 POSTER COMPETITION WINNERS



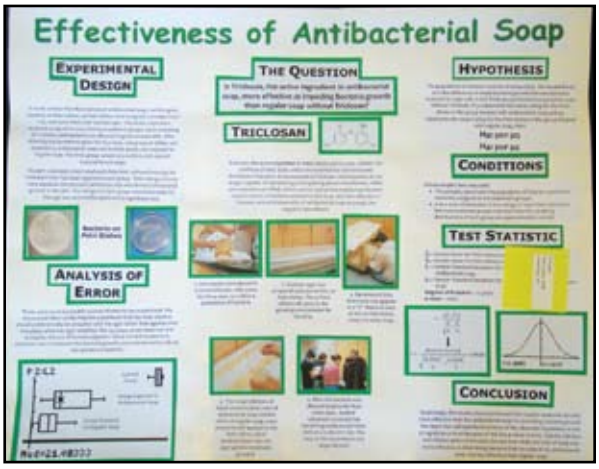
HONORABLE MENTION

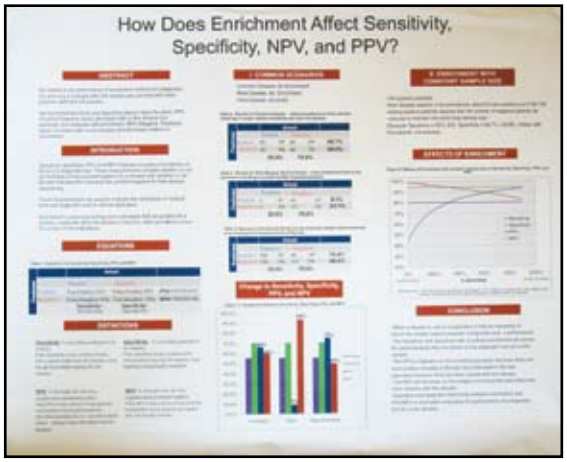
Fabio Ochoa
Relationship Between GPA and Number of Pets
Los Nietos Middle School, Los Nietos, California

GRADES 10-12

FIRST PLACE

Kevin Zhang and Sherry Yang
Effectiveness of Antibacterial Soap
Hatboro-Horsham High School,
Horsham, Pennsylvania

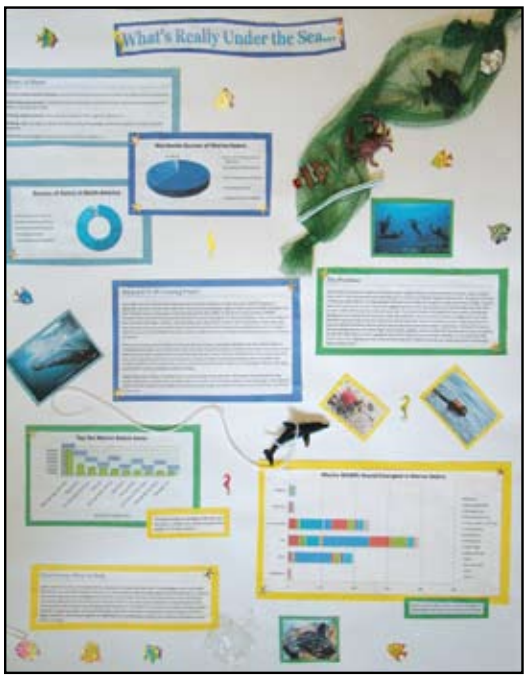




SECOND PLACE

Joey Hammond and Chris Breden
How Does Enrichment Affect Sensitivity, Specificity, NPV, and PPV?
Mt. Airy Christian Academy, Mt. Airy, Maryland

2010 POSTER COMPETITION WINNERS

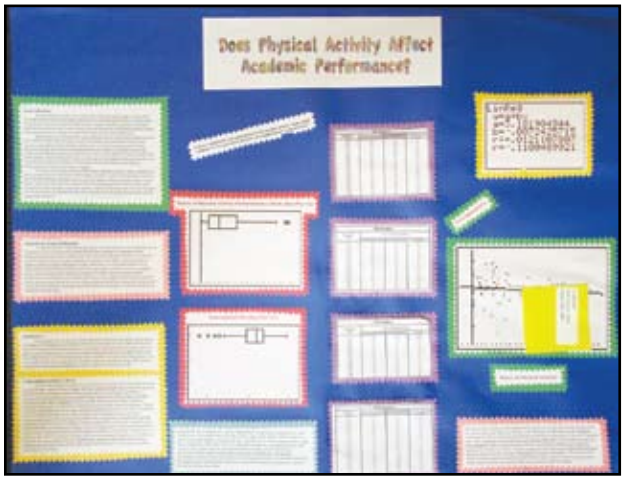


THIRD PLACE

Katelynn Kozbial
What's Really Under the Sea?
Kensington Woods High School, Howell, Michigan

HONORABLE MENTION

Maggie Law
Go for the Gold
Phillips Academy, Andover, Massachusetts



HONORABLE MENTION

Michelle Fergis and Gustavo Caicedo
Does Physical Activity Affect Academic Performance?
Felix Varela Senior High, Miami, Florida

2010 PROJECT COMPETITION WINNERS

Project Competition Judges

Megan E. Mocko of the University of Florida directed the competition with the following judges:

Jocelyne Arnott, North America Risk

Demetris Athientis, University of Florida

Patricia Bahnsen, Baylor University

Laura Bauer, Villa Maria Academy, Malvern, Pennsylvania

Ruth Carver, Germantown Academy, Fort Washington, Pennsylvania

Rameela Chandrasekhar, University at Buffalo

Anne Sophie Charest, Carnegie-Mellon University

Meghan Cherry, Saginaw Valley State University

Lewis Davidson, Mallard Creek High School, Charlotte, North Carolina

Jianghong Deng, George Mason University

Valerie Durkalski, Medical University of South Carolina

Julius Esunge, University of Mary Washington

Kandice Raymond Fielder, Entergy Services, Inc.

Claudio Fuentes, University of Florida

Vicki Greenberg, Woodward Academy, College Park, Georgia

Leigh Harrell, Virginia Tech

Katherine Harris, Patrick Henry High School, Ashland, Virginia

Mary Harrison, Salem High School, Virginia Beach, Virginia

Megan Henly, University of New Hampshire

Tim Hill, La Crosse Central High School, LaCrosse, Wisconsin

Norma Hubele, Arizona State University

Sam Koski, Miami Springs Senior High, Miami Springs, Florida

Lee Kucerra, Capistrano Valley High School, Laguna Beach, California

Alejandra Livingston, Nevada Department of Corrections

Christopher J. Malone, Winona State University

Paul Myers, Woodward Academy, College Park, Georgia

Julie Nawrocki, Skyline High School, Idaho Falls, Idaho

Eric Nelson, Thurston High School, Redford, Michigan

Amber Parsons, Parsons Statistical Consulting

continued on next page

Winning projects may be viewed at *www.amstat.org/education/posterprojects*. Students in grades 4–12 are encouraged to submit projects. They pose a question, design a study to answer the question, collect and analyze data, answer the question using the results of their analysis, and then review what went well and what areas could be improved. A short write-up on the activity, generally fewer than 10 pages, is submitted. At times, science fair projects serve as the foundation for projects, but it is the statistical aspects—design, data collection, graphical approaches, and analyses—that are important for this competition.

Each project is read by at least one grade 6–12 teacher and at least one college-level statistician. Top projects are read and discussed by all judges for each grade category. A scoring rubric, which may be seen at *www.amstat.org/education/posterprojects*, was used to guide the judges.

Projects that allow students to study questions they are interested in having answered are always the most exciting. Of course, the types of questions students ask change with age. In the grades 4–6 category, projects focused on differences in typesetting books and what conditions generate the most algae growth. A student's project in the grades 7–9 category included an evaluation of blade angle and size on wind turbine performance. Projects in the grades 10–12 category included surveying students about their eating habits, studying what types of techniques work best for recalling information, and comparing the number of hours students in middle and high school spend on Facebook. Students in the grades 10–12 category used many of the tests taught in AP Statistics, including simple linear regression analysis, matched paired *t* tests, and the chi-square test.

GRADES 4–6

FIRST PLACE

Andrew Blonsky
Changing Exhaust into Oxygen: Can Algae Survive in a Tailpipe?
Price Creek Independent School, Chapel Hill, North Carolina

2010 PROJECT COMPETITION WINNERS

SECOND PLACE

Nishanth Jayram
Fontastic Voyage: A Study of How Books Are Typeset
Sravani Academy, Morgan Hill, California

GRADES 7–9

SECOND PLACE

Anish Bhattacharya
The Effect of Blade Angle and Size on Wind Turbine Performance
Unity Point Elementary School
Makanda, Illinois

GRADES 10–12

FIRST PLACE

Omid Esmaili, Randy Weber-Levine, Cristian Marcel, and Eric Rizzo
Edifying Experimentation
Ward Melville Senior High School, Stony Brook, New York

SECOND PLACE

Maggie Law, Erik Christianson, and Chanel O'Brien
Eating Healthy: An Investigation into the Health Conscious Eating Habits of Teens
Phillips Academy, Andover, Massachusetts

THIRD PLACE (TIE)

Anna Lubitz, Megan Earl, Elizabeth Meshel, and Polina Viro
Multitasking: Does It Work? The Effects of Texting on Recall Ability of AP Statistics Students
Ward Melville High School, East Setauket, New York

Project Competition Judges (continued)

Adrianna Perez, The University of Texas Health Science Center at Houston

Jamis Perret, Texas A&M University

Dori Peterson, Stevens High School, San Antonio, Texas

Lisa Schell, Solanco High School, Quarryville, Pennsylvania

Marla Smith, U.S. Environmental Protection Agency

Kristen Springfield, Markham Woods Middle School, Seminole County, Florida

LeAnna Stork, Monsanto Co.

Quan Tran, University of Florida

Rieken Venema, University of Alaska

Nancy Wells, Milford Mill Academy, Baltimore, Maryland

Raymond Willie, East Islip High School, East Islip, New York

Linda Wohlever, Hathaway Brown School, Shaker Heights, Ohio

Agnes Wong, Sanford Middle School, Sanford, Florida

Donna Young, Kent Island High School, Stevensville, Maryland

Hamden Yousuf, University of Michigan

Daohai Yu, University of South Florida

Tasneem Zaihra, University of New Brunswick-Saint John

THIRD PLACE (TIE)

Mira Mehta and Joanne Chiao
Clocking in Facebook Hours
Oakton High School, Oakton, Virginia

HONORABLE MENTION

Christena Swartz and Anna Christianson
C Is for Cookie: Pillsbury vs. Nestle
Walter Payton College Prep, Chicago, Illinois ■

Lawrence H. Cox

Cox

Alan Karr, director of the National Institute of Statistical Sciences (NISS) recently announced **Lawrence H. Cox's** appointment as Assistant Director for Official Statistics at NISS. Karr said, "Larry Cox is a distinguished statistician who will help NISS in many ways, especially on research conducted in partnership with the federal statistical agencies."

In his new position, Cox will serve as convener of the survey cluster for the NISS affiliates program, expanding the NISS presence in data confidentiality research and furthering plans to develop a microsimulation model for surveys. He also will help deepen the scientific connections between NISS and its sister institute, the Statistical and Applied Mathematical Sciences Institute.

Prior to joining NISS, Cox was Associate Director for Research and Methodology at the National Center for Health Statistics. He holds a PhD in mathematics from Brown University.

David B. Dunson

David B. Dunson, professor of statistical science at Duke University, was recently named the 2010 Myrto Lefkopoulou Distinguished Lecturer. Dunson will present a lecture titled "Building Crystal Balls: Learning from Pictures, Curves, and Needles in Haystacks" on September 23 at the Harvard School of Public Health. A reception will follow.

Each year, the lectureship is awarded to a promising statistician who has made contributions to either collaborative or methodological research in the applications of statistical methods to biology or medicine and/or has shown excellence in the teaching of biostatistics.

For more information, email Artemis Moore at *aemoore@hsph.harvard.edu*.

Dale Jorgenson

Jorgenson

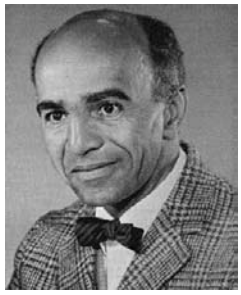
Dale W. Jorgenson, Samuel W. Morris University Professor at Harvard University, was recently selected to receive the 2010 Julius Shiskin Memorial Award for Economic Statistics. The award recognizes unusually original and important contributions to the development of economic statistics or the use of statistics in interpreting the economy. Jorgenson is being recognized for his leadership in the integration of the U.S. National Accounts and contributions to the measurement of productivity, innovation, capital, human capital, and poverty.

Jorgenson served as president of the American Economic Association in 2000 and was named a distinguished fellow in 2001. He was a founding member of the Board on Science, Technology, and Economic Policy of the National Research Council in 1991 and served as chair of the board from 1998 to 2006. He also served as chair of Section 54, Economic Sciences, of the National Academy of Sciences from 2000 to 2003 and on the Secretary of Commerce's 2008 Advisory Committee on Measuring Innovation in the 21st Century Economy. He currently serves as chair of the Bureau of Economic Analysis (BEA) Advisory Committee.

Jorgenson has conducted groundbreaking research on information technology and economic growth, energy and the environment, tax policy and investment behavior, and applied econometrics. He is the author of 246 articles about economics and the author and editor of 32 books. His collected papers have been published in 10 volumes by The MIT Press.

Jorgenson's work has had a significant effect on international statistics and provided contributions to the multifactor productivity estimates produced by the European Union. His research on the concept of the cost of capital was also a major influence on the new chapter on capital services in the *System of National Accounts 2008*.

Obituary
David Blackwell



Blackwell

David Blackwell, the first African American elected to the National Academy of Sciences, died July 8. He was 91 years old.

The oldest of four children, Blackwell grew up in Centralia, Illinois, and considered himself fortunate to attend an integrated school. At 16, he began his mathematics degree at the University of Illinois and earned his bachelor's in three years by taking summer classes.

Of 105 applications, Blackwell received three job offers. He chose Southern University in Baton Rouge, Louisiana.

In 1944, Blackwell went to teach at Howard University in Washington, DC, which he called "the ambition of every black scholar." It took only three years for Blackwell to become a full professor and head of the department of mathematics.

Blackwell remained at Howard until 1954, when he was offered a professorship at the University of California, Berkeley. He became chair of Berkeley's department of statistics in 1956, but the administrative role was not fulfilling. For about a year after stepping down, he said, "My first thought was, 'I'm no longer chairman,' and it made my day."

Blackwell was a longtime member and former vice president of the ASA. He served as president of the Institute of Mathematical Statistics, the International Association for Statistics in Physical Sciences, and the Bernoulli Society. Prior to retiring, he published 80 papers.

To read more about Blackwell, visit *www.amstat.org/about/statisticiansinhistory*.

Obituary
Bishnoedath Leo Raktoe

Submitted by Hosh Pesotan and Radhey S. Singh

Raktoe

Bishnoedath Leo Raktoe, a former professor of statistics in the department of mathematics and statistics at the University of Guelph in Ontario, Canada, passed away on November 13, 2009, in Singapore, where he lived since 1997.

Raktoe was born in Paramaribo, Surinam, on August 2, 1932. He received his preliminary education in Paramaribo and then went on to study at the State College for Tropical Agriculture in Deventer, The Netherlands, where he earned a diploma in tropical agriculture in 1952. From 1953 to 1960, he worked as an agricultural technical officer in the Ministry of Agriculture in Paramaribo.

In 1961, he undertook postgraduate study in statistics at Cornell University, earning a doctorate in 1964, with a major in biometry and minors in economic and social statistics.

In 1967, after a two-year appointment with the FAO/UN in Colonia, Uruguay, Raktoe joined the department of mathematics and statistics at the University of Guelph as an associate professor of statistics and embarked on a teaching and research career. He was promoted to full professor in 1970 and he continued his tenure at Guelph until 1980. At Guelph, he helped develop the undergraduate and master's programs in statistics.

From 1980 to his retirement in 1997, Raktoe traveled extensively throughout Saudi Arabia, Singapore, Thailand, Malaysia, Jamaica, Trinidad, and South Africa, teaching and carrying out collaborative research at various universities.

While Raktoe had research interests in many areas, his principal research activity was in design and analysis of experiments—an area in which he authored or coauthored more than 60 papers. He published in leading journals, including *Annals of Mathematical Statistics*, *Annals of Statistics*, *Journal of the Royal Statistical Society*, *Journal of the American Statistical Association*, *Annals of the Institute of Statistical Mathematics*, and *Journal of Statistical Planning and Inference*. Raktoe also coauthored two books: *Basic Applied Statistics* and *Factorial Designs*.

Raktoe was a Fellow of the American Statistical Association, Royal Statistical Society, and Institute of Mathematical Statistics and an elected member of the International Statistics Institute. He was a great mentor, teacher, and researcher. Above all, he was a great colleague and friend. He will be sadly missed. ■

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July 22-23, 2010	Research Triangle Park, NC
October 21-22, 2010	Washington, DC

Descriptive Procedures Course

April 21-23, 2010	Washington, DC
July 19-21, 2010	Research Triangle Park, NC
September 22-24, 2010	Washington, DC

Modeling Procedures Course

May 26-28, 2010	Washington, DC
October 13-15, 2010	Washington, DC

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Biometrics

Byar Award Winners Announced

Edited by Page Moore, Biometrics Section Publications Officer

Xiaoxi Jessie Jeng of the University of Pennsylvania was chosen as this year's winner of the David P. Byar Young Investigator Award for "Optimal Sparse Segment Identification with Application in Copy Number Variation Analysis." Jeng received $1,500 and a plaque.

In addition to Jeng, members of the award committee chose three travel award winners:

Jaeun Choi of The University of North Carolina for "Joint Analysis of Survival Time and Longitudinal Categorical Outcomes"

Eunhee Kim of Brown University for "Semiparametric Transformation Models for Multiple Biomarkers in ROC Analysis"

Elif F. Acar of the University of Toronto for "Nonparametric Covariate Adjustment in Conditional Copulas: An Application to Twin Birth Weights"

Each travel award winner received $1,000 to offset the cost of attending the Joint Statistical Meetings and presenting their papers.

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

JSM 2011

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

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

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

Also, ideas for short courses can be sent to the section's continuing education chair, Annie Qu, at *anniequ@illinois.edu*. ■

Physical and Engineering Sciences

SPES Short Course to Focus on Logistic Regression

Tena Katsaounis, SPES Education Chair

Birmingham, Alabama: site of the 2010 Fall Technical Conference

The Section on Physical and Engineering Sciences will sponsor a one-day short course, Short Course on Logistic Regression Analysis, given by Richard Lynch at the Fall Technical Conference, which will take place October 7–8.

The course will cover binary, nominal, and ordinal logistic regression. Students will learn to identify the context in which logistic regression applies and fit logistic regression models using Minitab. They will learn to evaluate goodness of fit and interpret the models. Data formatting requirements will be explained, and the role of link functions will be shown. Also covered will be input variables that are continuous and categorical, and students will practice effective methods of reporting the findings from their modeling effort. Each student should bring a laptop. A 30-day trial of Minitab version 15 will be made available to those students who do not already have Minitab installed.

Lynch is a private practice statistical consultant who has 12 years of experience training more than 70 waves of Six Sigma green belts, black belts, and master black belts. Before that, he served for 13 years as a process improvement engineer at Harris Semiconductor. While at the University of Florida, Lynch studied under William Mendenhall, John Cornell, Ron Randles, and Alan Agresti. His dissertation was directed by Ramon Littell.

For additional information about FTC 2010 or to register, visit *http://cba.ua.edu/ftc2010*. ■

Biopharmaceutical

FDA/Industry Statistics Workshop on Horizon

The three-day FDA/Industry Statistics Workshop is one of a series of annual events that have been sponsored by the ASA Biopharmaceutical Section in cooperation with the FDA Statistical Association since 1996. This year's workshop will be held September 20–22 at the Grand Hyatt Washington in Washington, DC.

Short courses are scheduled on the first day, followed by two days of sessions on the science and statistics associated with the development of new medical products (e.g., pharmaceuticals, biologics, and devices). The workshop has been popular since its inception because it provides a unique opportunity to bring together statisticians from industry, academia, and the Food and Drug Administration for an open dialog about issues of mutual interest.

The titles of short courses and several session topics are provided below. For the complete online program and registration details, visit *www.amstat.org/meetings/fdaworkshop*.

Short Courses (September 20)

Emerging Challenges in Clinical Trial Methodologies

Beyond Survival Analysis: Recurrent Event Responses in Clinical Trials

Interpreting Change and Responder Analysis for Patient-Reported Outcomes

Hot Topics: Recent Developments in Clinical Trial Methodologies

Good Statistical Practice and Common Subtle Statistical Mistakes

Quantitative Pharmacovigilance: Statistical Approaches to Medical Product Safety Surveillance

Session Topics (September 21–22)

Issues and Methods for Handling Missing Data in Clinical Trials

Risks in Your Everyday Food: Signal Detection for Global Food Safety

Vaccine Safety, H1N1 and Other Influenza Vaccines

Design and Analysis Issues in Active Control Veterinary Clinical Trials

Critical Statistical Issues and Standards for Biomarker Discovery and Diagnostic Assay Development

Issues and Suggestions Involving Subgroup Analyses

Heterogeneity in Treatment Response: What It Is, Why It's Important, and How to Find It

Quantitative Assessments of Patient Reported Outcomes: Questionnaire Design and Analysis

Population Enrichment Designs in Clinical Trials

Conference attendance is limited to 750 participants, so make sure to register early. ■

Fellow Nominations

Do you know someone in the Biopharmaceutical Section who deserves to become an ASA Fellow? If so, visit *www.amstat.org/careers/fellowslist.cfm* to determine whether the person you have in mind is already a Fellow. If not, send their name to Steve Wilson at *Stephen.Wilson@fda.hhs.gov* by August 31. Members of the Biopharmaceutical Section Fellows Committee will evaluate each recommendation and facilitate the creation of a nomination package for candidates judged most deserving of this honor.

Join the Conversation

It is now easier than ever to become engaged in the ASA and its members through social media.

ASA Community—Join this online setting for ASA members to communicate, collaborate, and share.

Twitter—Follow *Amstat News* on Twitter @AmstatNews and keep up to date on the profession.

Facebook—Check out the ASA's page on Facebook to keep up with the latest deadlines, news, and activities and to share your tips and comments with colleagues worldwide.

Engage your fellow statisticians and enhance your mind, education, and career at ***www.amstat.org***.

Government Statistics

Deborah Griffin Wins Mentoring Award

Beth Kilss, Jeanne E. Griffith Award Selection Committee Member

Photo courtesy of Tim Ware (Ideal Vision, LLC, *idealvision@verizon.net*)

From left: Mark, Brian, Deborah, and Kevin Griffin

Photo courtesy of Tim Ware (Ideal Vision, LLC, *idealvision@verizon.net*)

From left: Bob Groves, Beth Kilss, Deborah Griffin, Katherine Wallman, Andy Orlin, Susan Schechter, and Carol House

On the afternoon of June 23, Deborah H. Griffin of the U. S. Census Bureau was presented with the Jeanne E. Griffith Mentoring Award in the conference center of the Bureau of Labor Statistics. The audience of approximately 50 was comprised of colleagues, family, and friends of Jeanne Griffith and Griffin; Robert Groves, U.S. Census Bureau director; and members of the award selection committee and Interagency Council on Statistical Policy.

The Winner

Griffin is a mathematical statistician at the U.S. Census Bureau, a position she has held for nearly 33 years. Currently, she is special assistant to the chief of the American Community Survey Office (ACSO). In this role, she serves as a program adviser and is responsible for special projects relating to both program evaluation and implementation.

Griffin earned a Bachelor of Science degree in mathematics from the University of Connecticut and completed graduate-level courses in statistics and survey methodology. She joined the bureau's Statistical Methods Division in 1977 to provide operational analysis of multiple processing components of the 1980 Decennial Census.

During the 1980s, Griffin was a branch chief in the Decennial Planning Division, supervising staff and overseeing project coordination of testing and planning of the 1990 Census. She received her first bronze medal in 1987 for her role in developing the workflow for that census.

During the 1990 Census, Griffin was chief of the Census Evaluation Branch of the Decennial Statistical Studies Division. She monitored census operations and design evaluation studies and assisted with the development of census experiments.

Griffin became part of the team charged with the implementation and evaluation of the American Community Survey (ACS) in 1999. She established a staff to conduct critical ACS research and evaluation projects and was responsible for documenting critical research on the feasibility and quality of the ACS and overseeing the production of the ACS design and methodology report. In 2003, the ACS was moved into the Decennial Directorate and Griffin became a special assistant to the assistant director for Decennial Census and ACS. In 2006, she received her second bronze medal as part of an interdivisional team that used ACS data to produce a special product for Gulf Coast areas affected by Hurricane Katrina.

When the ACSO was established, Griffin was reassigned to the ACSO chief. She has authored several papers and given numerous presentations on all aspects of the ACS. Recently, she received a third bronze medal for developing a set of audience-specific educational materials for ACS data users. In 2009, she was named to the Federal Committee on Statistical Methodology.

Susan Schechter wrote in her nominating letter that "the ease with which Debbie approaches mentoring a wide variety of individuals results consistently in her teaching and improving their skill set and understanding of statistics, surveys, and data quality."

Schechter continued, "Debbie has a natural skill in simplifying very complicated issues and teaching to others how to approach and solve very thorny problems. … Every single day, she sets an outstanding example for those around her, and it is a testament to her mentoring skills that so many people consider her their mentor…"

In conveying her thanks, Griffin said, "I get a lot of satisfaction when I see someone I've worked with get a promotion, give a great presentation, or complete an important project. It's clear to me that young staff who get the support they need will grow in skill and confidence and be able to take on the challenges of the upcoming decades.

"The support I have received has encouraged me to want to pass it on—by mentoring and supporting staff around me. To teach when that's needed and to always be aware of the example I'm setting. As I've gained confidence, and learned by both successes and failures, I felt in a position to advise others—to listen and give my honest opinions.

"For mentoring to be successful, it requires two things: Someone like me (and so many of the people here today) who is willing to find the time to reach out to junior staff, to have an open door for colleagues, and care about the example they set and someone who is willing to ask for help and listen to advice."

The Ceremony

The award ceremony was conducted by Beth Kilss, Katherine Wallman, Andy Orlin, and Carol House. Kilss, formerly of the IRS and chair of the award selection committee, led the ceremony. Wallman, chief statistician at the Office of Management and Budget and chair of the Interagency Council on Statistical Policy, introduced Griffin and members of the audience. She also talked about the award during its early days.

Orlin, Jeanne E. Griffith's spouse, congratulated Griffin and expressed his appreciation to the award selection committee and ASA Government Statistics Section (GSS) for assuming management of the award process and for further strengthening the program over the past two years.

Past Jeanne E. Griffith Mentoring Award Winners

2009 – Kevin Cecco, Internal Revenue Service, and Lillian S. Lin, Centers for Disease Control and Prevention

2008 – Rosemary D. Marcuss, Bureau of Economic Analysis

2007 – Stephanie Shipp, National Institute of Standards and Technology

2006 – Martin O'Connell, U.S. Census Bureau

2005 – Renee Miller, Energy Information Agency

2004 – Beth A. Kilss, Internal Revenue Service

2003 – Rich Allen, National Agricultural Statistics Service

Quality and Productivity

FTC to Focus on Using Statistics to Improve Quality

Members of the Quality and Productivity Section (Q&P) invite you to attend the 54th Annual Fall Technical Conference (FTC), which will be held in Birmingham, Alabama, from October 6–9. The conference is a premier forum in which to discuss topics at the interface of statistics and quality, leading to a more effective use of statistics to improve quality. The theme of this year's conference is "Quality and Statistics: The Engines of Success."

The program includes a range of talks on subjects such as experiment design, reliability analysis, assessing gauge repeatability and reproducibility, statistical process control, and graphics. Highlights include a plenary address by William Woodall from Virginia Tech and a memorial session in honor of Soren Bisgaard

The Q&P invited session is titled "All Aboard? Turning Passengers into Engineers: A Panel Discussion on Effective Training of Process Improvement Tools and Methods." It will be led by Frederick W. Faltin of The Faltin Group and Willis A. Jensen of W.L. Gore & Associates.

Q&P also is sponsoring a short course, titled "Experiences and Pitfalls in Reliability Data Analysis and Test Planning." The course will be taught by William Q. Meeker of Iowa State University on October 9 and focus on the analyses of many life data analysis applications in product reliability and materials evaluation. The analyses illustrate the use of a mix of proven traditional techniques, enhanced and brought up to date with modern computer-based methodology. Using a series of real examples from reliability applications, this course will focus on graphical presentation of reliability data, statistical modeling, and interpretation of results.

For more information, visit *http://cba.ua.edu/ftc2010*. ■

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House, formerly of the National Agricultural Statistics Service and award selection committee member, presented Griffin's award and read her citation. Schechter, Griffin's supervisor and ACSO chief, highlighted Griffin's extensive mentoring talents and many contributions to the office. She also noted how she had benefited from Griffin's exceptional skills.

Groves, who was a member of the first award selection committee, congratulated Griffin, who he has known for more than 20 years. He also spoke about the value of mentors by noting that while human resource staff members seek equity and consistency, they do not often express care and support, and as organizations grow, the humanity is threatened. Large federal organizations are susceptible to this; hence, the value of mentors. Groves also noted that qualities of a good mentor include loving people, having patience, being modest, coming from all levels of the hierarchy, and listening before talking.

The History

Jeanne E. Griffith worked for more than 25 years in the federal statistical system. Throughout her career, and especially in her senior management positions at the National Center for Education Statistics and National Science Foundation, one of Griffith's highest priorities was to mentor and encourage junior staff to learn, grow, and recognize and seize career opportunities. After her death from breast cancer in 2001, the Jeanne E. Griffith Mentoring Award was set up to honor her memory by encouraging mentoring of junior staff in the federal statistical system.

Transition to the GSS

In 2007, Orlin and Emerson Elliott—two of the award's founders—approached GSS about managing the award. When they met with the section's board, there was no hesitation in taking on the leadership role; in fact, there was much enthusiasm and delight in being asked. House was chair of the section at the time, and ASA Director of Operations Steven Porzio and ASA Chapter and Sections Coordinator Monica Clark were instrumental in ensuring a smooth transition.

Jeanne E. Griffith

The GSS not only administers the award process, but—as a priority—works to raise the visibility of the award by emphasizing the importance of mentoring across the federal government, and particularly the federal statistical community.

Sponsoring the Award

The National Opinion Research Center, American Institutes for Research, Council of Professional Associations on Federal Statistics, and American Educational Research Association joined the GSS in providing financial support for the award. Also, the Interagency Council on Statistical Policy continued its support of the program.

GSS is seeking long-term corporate sponsors to help increase the amount of the honorarium and to allow for more awards to be given. The section will continue to raise funds each year until a sufficient amount is raised to make the award self-sustaining. Contact Stephanie Shipp at *sshipp@ida.org* if you would like to be a supporter.

Nominations for 2011

Nominations for the 2011 Jeanne E. Griffith Mentoring Award will be accepted beginning in January. Look for an article in *Amstat News* toward the end of 2010 that will describe the nomination process. Also, check out the newsletters and listservs of the Government Statistical Society and Washington Statistical Society for information. ■

Snake River

The Snake River Chapter's annual business meeting, held on June 4 in Boise, Idaho, featured an invited talk by Robert Lund, an ASA Fellow and professor in the department of mathematical sciences at Clemson University. Lund's talk, "Changepoints in Climatology," provided an interesting overview of time series changepoint tests and illustrated these methods in applications to climatic time series.

The meeting also included the following talks from chapter members and friends:

Bayesian Nonparametric Bioassay Estimation, by Bahman Shafii of the University of Idaho

Model Selection by Constrained L1 Regularization, by Leming Qu of Boise State University

Equivalent Sample Sizes in Time Series Regressions, by Jaechoul Lee of Boise State University

A Simple Detection Method of Variance Changepoint and Its Application to Stock Returns, by Kyungduk Ko of Boise State University

Teaching Foundational Statistical Concepts Using R-Graphical Functions, by Ken Aho of Idaho State University

Predicting Antibiotic Resistance in Healthcare-Associated Pneumonia, by Richard Remington of Quantified Inc.

Andrzej Wojtowicz won first place and $200 in the student presentation competition with "Estimating the Number of One Step Beneficial Mutations."

Wojtowicz is studying for a master's in statistics and PhD in bioinformatics and computational biology at the University of Idaho. ■

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

Adaptive Design Focus of Chapter Spring Meeting

The Princeton Trenton Chapter held its annual spring meeting on June 11. Because of the increasing use of adaptive designs in the pharmaceutical industry and the recent publication of the Food and Drug Administration's draft guidance on adaptive designs, adaptive design seemed to be a good choice for a topic, especially in a region where most statisticians work in pharmaceuticals and clinical research.

Four local experts gave talks:

Naum Khutoryansky spoke about an adaptive design that was implemented in a phase II trial to explore the choice of dose for their factorVII drug to reverse the effects of warfarin.

Weli He, from Merck, discussed the critical considerations regarding the logistics and reduction of drug waste in adaptive designs. He showed how simulations could be used to identify problems and find solutions.

Jose Pinheiro, a member of the PhRMA working group on adaptive designs who works for Johnson & Johnson, presented an overview of the FDA draft guidance and discussed both what the industry likes about it and disagrees with.

Keaven Anderson, from Merck, spoke about adaptive trials with binary outcomes, where adaptations are based on blinded data that indicate the total number of events without separating them by treatment group.

The presenters' slides are available at *www.amstat.org/chapters/princetontrenton/index.html*. With more than 85 registrants, this spring meeting saw the largest turnout in years. ■

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

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

›› Indicates events posted since the previous issue

September

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

13–15—ENBIS 2010 – 10th Annual Conference of the European Network for Business and Industrial Statistics, Antwerp, Belgium
This conference will include keynote lectures, invited and contributed sessions, workshops and pre- and post-conference courses. The social program will include a reception at Antwerp City Hall and dinners in the medieval cellars in downtown Antwerp and Marble Hall of the Antwerp Zoo. For more information, visit *www.enbis.org* or contact Peter Goos, Prinsstraat 13, Antwerp, International 2000, Belgium; +3232654059; *peter.goos@ua.ac.be*.

13–17—RSS 2010 International Conference, Brighton & Hove, United Kingdom
The annual conference of the Royal Statistical Society seeks to bring together statisticians, researchers, analysts, and other users of statistics to hear, digest, and discuss the latest research and developments in statistics. The conference will feature leading international speakers on highly topical subjects. For more information, visit *www.rss.org.uk/rss2010* or contact Paul Gentry, 12 Errol St., London EC1Y 8LX, London, International EC1Y 8LX, UK; +020 7614 3918, *conference@rss.org.uk*.

19–22 —Applied Statistics 2010 (AS2010), Ribno (Bled), Ljubljana, Slovenia
This conference will provide an opportunity for researchers, data analysts, and other professionals to exchange their knowledge. Cross-discipline and applied paper submissions are welcome. For more information, visit *http://conferences.nib.si/AS2010* or contact Andrej Blejec, Vecna pot 111, Ljubljana, International SI-1000, Slovenia; +386 59 232 789; *info.as@nib.si*.

24–26—Info-Metrics: Theory and Application, Washington, DC
Discuss and study the latest developments of info-metrics across the sciences. Conference topics include theory and methods and applications across the sciences. Examples include economics/econometrics (theory and applications), finance and risk management, philosophy of science, predictive games, natural sciences, and social sciences. For more information, visit *www.american.edu/cas/economics/info-metrics/conference/index.cfm* or contact Amos Golan, 4400 Massachusetts Ave., NW, Washington, DC 20016; (202) 885-3783; *info-metrics@american.edu*.

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

››*25—StatFest 2010, Atlanta, Georgia
For more information, visit *www.statfest.com* or contact Nagambal Shah, Box 272, Spelman College, Atlanta, GA 30314; (404) 270-5834; *nshah@spelman.edu*.

October

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

10–12—Midwest SAS Users Group Conference, Milwaukee, Wisconsin
This conference will offer presentations, workshops, and tutorials to enhance attendees' SAS skills, as well as opportunities to network with other SAS users. Staff from SAS Institute will be available to provide expertise and insight. Conference attendees are encouraged to present papers on a variety of topics, including statistics, modeling, data mining, forecasting, pharmaceutical applications, health care, health insurance, and life sciences applications. For more information, visit *www.mwsug.org/mil2010/index.htm* or contact Doug Thompson, 501 West Michigan, Milwaukee, WI 53201; (414) 299-7998; *Doug.Thompson@Assurant.com*.

***14–16—Space-Time Statistics to Evaluate the Impacts of Climate on Health and Renewable Energy, Boulder, Colorado**
This workshop will include sessions on recent advances in climate change research, impacts on human health, and challenges in development and penetration of renewable energy. Technical sessions will cover recent developments in space-time statistical methods, Bayesian methodology, and extreme value analysis. A one-day

short course will be offered on October 14, and there will be a poster session. For more information, visit *www.stat.purdue.edu/envr2010* or contact Amanda Hering, Mathematical and Computer Sciences Department, Golden, CO 80401; *ahering@mines.edu*.

19–22—IX CLATSE (Latin American Congress of Statistical Societies), Viña del Mar, Chile
This meeting is for specialists and users of statistics to exchange results of scientific research, teaching experiences, and applications. For more information, visit *www.clatse.org* or contact Departamento Estadística, Universidad Valparaíso, Avenida Gran Bretaña 1901, Valparaíso, International 2350026, Chile; 56-32-2508320; *info@clatse.org*.

20–22—International Conference on Modeling, Simulation, and Control 2010, San Francisco, California
This conference is held under the World Congress on Engineering and Computer Science, organized by the International Association of Engineers. For more information, visit *www.iaeng.org/WCECS2010/ICMSC2010.html* or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, International HK, Hong Kong; +852 3169 3427; *wcecs@iaeng.org*.

››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*.

November

8–12—17th Annual Biopharmaceutical Applied Statistics Symposium, Hilton Head Island, South Carolina
This symposium will provide a forum for pharmaceutical, medical, and regulatory science professionals to share timely and pertinent information concerning the application of biostatistics in biopharmaceutical environments. For more information, contact Ruth Whitworth, P.O. Box 8015, Statesboro, GA 30460; (912) 478-7904; *bass@georgiasouthern.edu*.

10–13—2010 American Evaluation Association (AEA) Annual Conference, San Antonio, Texas
This meeting is expected to bring together about 2,500 evaluation practitioners, academics, and students in a collaborative, thought-provoking, and fun atmosphere. The conference will be broken down into 44 topical strands that examine the field from a particular methodology, context, or issue of interest to the field and the presidential strand, highlighting this year's presidential theme of evaluation quality. For more information, contact Heidi Nye, 16 Sconticut Neck Road, #290, Fairhaven, MA 02719; (888) 232-2275; *info@eval.org*; *www.eval.org/eval2010/default.asp*.

December

5–10—International Biometric Conference, Florianopolis, Brazil
This conference will bring together approximately 800 statisticians and others interested in the development and application of statistical and mathematical theory and methods to the biosciences. The meeting program includes oral and poster presentations of methodological advances, applications to specific subject-matter challenges, and educational offerings. Special celebratory events are planned. For more information, visit *www.rbras.org.br/~ibcfloripa2010* or contact Dee Ann Walker, 1444 I St. NW, Washington, DC 20005; (202) 712-9049; *info@tibs.org*.

***5–10—66th Annual Deming Conference on Applied Statistics, Atlantic City, New Jersey**
This conference will focus on recent developments in statistical methodologies in 12 three-hour tutorials. Attendees will receive bound proceedings of the presentations. The conference will be followed by two parallel short courses: Bayesian Adaptive Clinical Trials and SAS for Mixed Models. For more information, contact Walter Young, 16 Harrow Circle, Wayne, PA 19087-3852; (610) 989-1622; *demingchair@gmail.com*.

6–10—Australian Statistical Conference 2010, Fremantle, West Australia
Delegates from all areas of work in statistics will be encouraged to communicate their knowledge and expertise and join world-class 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*.

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*

NCHS Celebrates 50th Anniversary

The National Center for Health Statistics is celebrating 50 years during their national conference August 16–18 in Washington, DC. The conference features a day of hands-on and educational workshops for data users. Two days of scientific sessions will address major issues in health statistics and bring together key researchers and policymakers.

For more information, visit *http://www.cdc.gov/nchs/events/nchs.htm* or email Joe Fred Gonzalez Jr. at *JGonzalez@cdc.gov*.

Conference Kicks Off Commerce Initiative

The International Trade Administration will present a conference titled "Measuring and Enhancing Services Trade Data and Information" on September 14 in conjunction with the U.S. Census Bureau and Bureau of Economic Analysis. The one-day event is a kickoff for the U.S. Department of Commerce's initiative to collect and disseminate the data and information needed to enable services industries to make better decisions. For more information, visit *http://tinyurl.com/2usqo5p*.

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*.

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*.

March

››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

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*.

June

20–24—Seventh International Conference on Mathematical Methods in Reliability, Beijing, China
This international conference will focus on theory, methods, and applications of reliability models and associated inferential issues. For more information, visit *www.mmr2011.cn* or contact Lirong Cui, Beijing Institute of Technology, School of Management and Economics, Beijing, International PRC, China; +1 905 525 9140; *Lirongcui@bit.edu.cn*.

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

30–7/3—Statistics 2011 Canada/IMST-2011-FIM XX, Montréal, Quebec
This conference is dedicated to all areas of mathematical and statistical sciences. In addition to traditional theoretical/applied areas, interdisciplinary research is encouraged. Historically, this conference has concentrated on applied and theoretical statistics, Bayesian statistics, bioinformatics, biostatistics, combinatorics, computer and information sciences, design and analysis of experiments, ergodic theory, functional analysis, graph theory, multivariate analysis, number theory, partial differential equations, and topology. For more information, contact Yogendra Chaubey, 1455 de Maisonneuve Blvd. W., Montréal, Quebec H3G 1M8, Canada; +1 514 848 2424, ext. 3258; *stat2011@mathstat.concordia.ca*.

July

3–6—2nd IMS Asia Pacific Rim Meetings, Tokyo, Japan
This meeting series provides a forum for scientific communication and collaboration among researchers in Asia and the Pacific Rim. The program will cover a range of topics in statistics and probability, as well as recent developments and the state of the art in a variety of modern research topics and applications. For more information, contact Runze Li, Department of Statistics, Penn State University, University Park, PA 16802-2111; (814) 865-1555; *ril4@psu.edu*.

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

ICES IV on Tap for 2012

Survey practitioners from government agencies, academia, and the private sector will gather at the Sheraton Centre Montréal in Québec, Canada, for the Fourth International Conference on Establishment Surveys (ICES IV) from June 11–14, 2012, to continue the tradition of sharing innovative techniques and best practices to address common issues. Planning is now under way.

The conference will include short courses, a keynote speaker, poster sessions, software demonstrations, and invited and contributed paper sessions.

A major strength of the ICES conferences is the strong international presence, both in the program development and attendance. More than 400 people from 94 countries attended ICES III in 2007.

For more information, send an email to *ices4@amstat.org*.

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.

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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.*

Alaska

■ The USGS Alaska Science Center is seeking a research statistician (GS1530-12 or 13) to collaborate on development and application of statistical methods for modeling spatial and temporal dynamics of wildlife populations. Requires doctorate or equivalent in statistics or related field and expertise in generalized mixed effects, Bayesian, and population dynamics models. More information at *http://alaska.usgs.gov/jobs* or contact Mark Udevitz, (907) 786-7083, *mudevitz@usgs.gov*. U.S. Geological Survey is an equal opportunity employer.

Georgia

■ The University of Georgia department of epidemiology and biostatistics invites applications for assistant professor of biostatistics (tenure track). For details, see *www.publichealth.uga.edu/epibio/*. PhD in biostatistics or statistics is required. Send CV, statements of research

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.

interests and teaching philosophy, academic transcripts, and three reference letters to Stephen Rathbun, 132 Coverdell Center, University of Georgia, Athens GA 30602-7397. Email: *rathbun@uga.edu*. Review begins September 30. University of Georgia is an EO/AA employer.

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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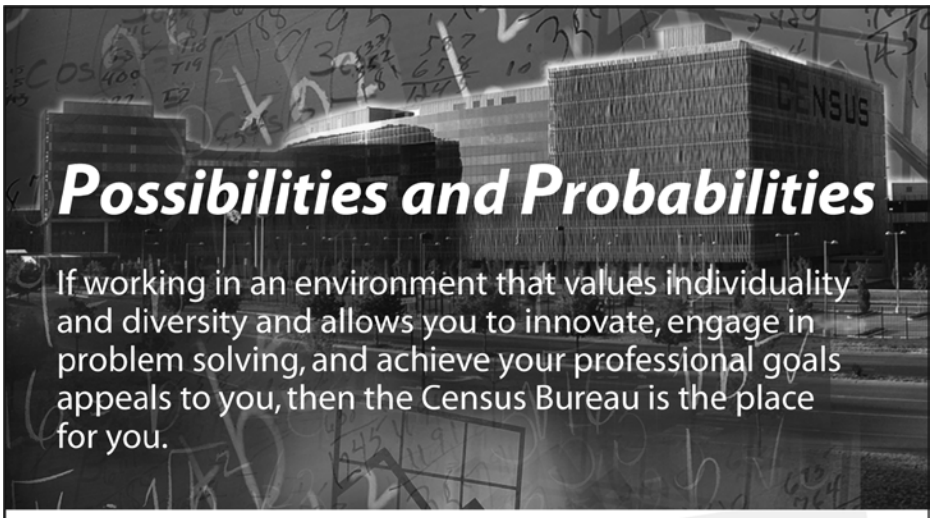

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BABSON

TENURE-TRACK FACULTY POSITION IN STATISTICS MATHEMATICS AND SCIENCE DIVISION

The Mathematics and Science Division of Babson College invites applicants for a tenure-track position starting September 1, 2011. The ideal candidate will have a Ph.D. in statistics, a proven teaching record with the desire to deliver statistics, operations research, and mathematics courses to undergraduate business students, and an active research agenda. The anticipated teaching load is four classes per academic year. The appointment will be made at a rank commensurate with the individual's record.

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Interested applicants should send a current CV and a brief statement about their teaching history and philosophy to Prof. Steven E. Eriksen, Chair, Mathematics and Science Division at eriksen@babson.edu.

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■ The Sarah Cannon Research Institute in Nashville is seeking a director of biostatistics. Reporting to president of SCRI Services, the director will serve as a key member of the leadership team and ensure that appropriate statistical techniques are used, guaranteeing scientific validity and quality of clinical trial results. Relevant PhD and team leadership experience required. Contact Martin Godwin @ The McAulay Firm (703) 342-1880 or *mgodwin@mcaulay.com*. EOE.

Texas

■ UT MD Anderson Cancer Center, Division of Quantitative Sciences, is accepting applications for full/associate professor, tenured/tenure-track scholar in quantitative psychology/behavioral statistics to lead a section of behavioral and population statistics within dept. of biostatistics. Send cover letter, CV, and references to Paul Cinciripini, PhD, Professor/Deputy Chair, UTMDACC, Dept. of Behavioral Science, P.O. Box 301439, Unit 1330, Houston, TX 77230-4439: *behavstat-search@mdanderson.org*. Further information at *http://biostatistics.mdanderson.org/QS*. MD Anderson Cancer Center is an equal opportunity employer and does not discriminate on the basis of race, color, national origin, gender, sexual orientation, age, religion, disability, or veteran status except where such distinction in required by law. All positions at The University of Texas MD Anderson Cancer Center are security sensitive and subject to examination of criminal history record information. Smoke-free and drug-free environment.

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Contacts

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Toll-free: (888) 231-3473
Fax: (703) 684-2037
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■ ***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*.

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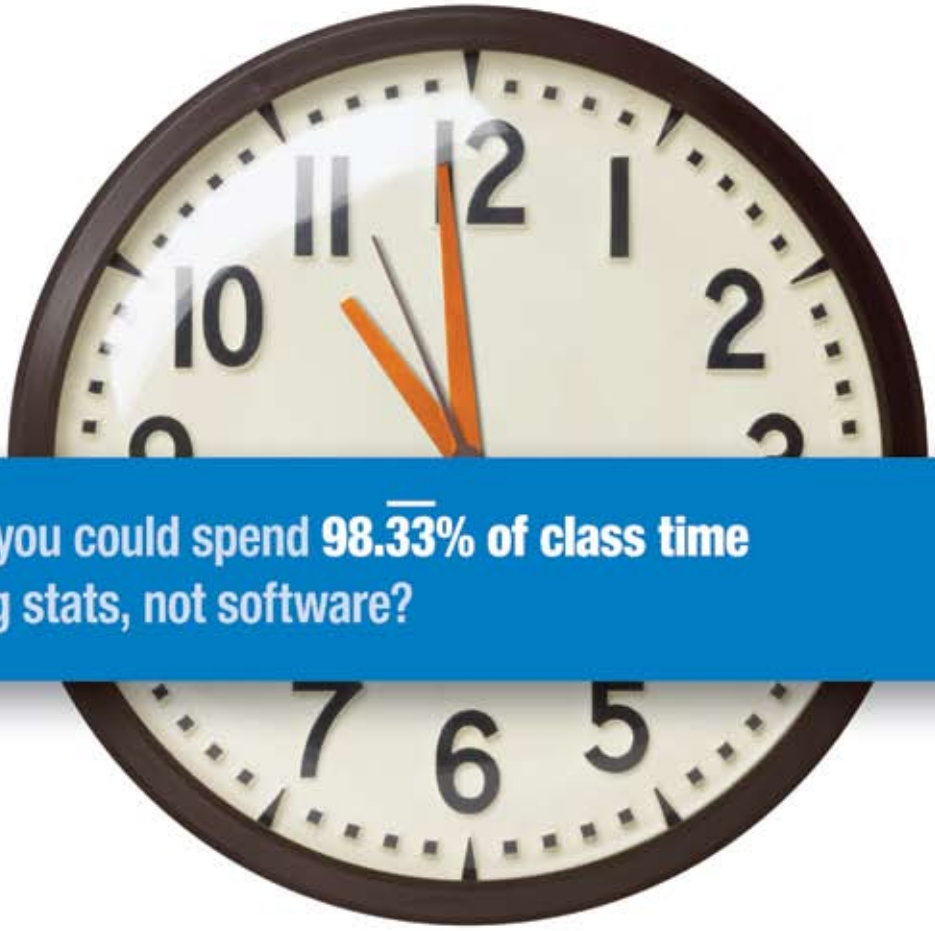

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