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AMSTATNEWS

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DECEMBER 2014 • ISSUE #450

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The American Statistical Association is the world's largest community of statisticians. The ASA supports excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Our members serve in industry, government, and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare.

features

- 3 President's Corner
- 5 Will Your 2015 JSM Poster Have Statistical Significance?
- 5 Statistics Without Borders Partners with Statisticians for Society
- 6 NSF Extends Program Funding Interdisciplinary Research of Mathematical Scientists
- 7 Voting in the 2015 ASA Election Made Easy
- 9 Training Students to Extract Value from Big Data
- 17 Special Interest Group: Statistics Instructors in Cyberspace

columns

10 175 The Future Lies Ahead

This year marks the ASA's 175th birthday. To celebrate, the column "175"—written by members of the ASA's 175th Anniversary Steering Committee and other ASA members—will chronicle the theme chosen for the celebration, status of preparations, activities to take place, and—best yet—how you can get involved.



Stigler

Contributing Editor

Stephen M. Stigler (PhD Berkeley) taught at the University of Wisconsin – Madison before moving in 1979 to The University of Chicago. He served as editor of JASA Theory and Methods from 1978–1981 and president of the Institute for Mathematical Statistics and International Statistical Institute. His publications include the books The History of Statistics (1986) and Statistics on the Table (1999).

12 STATtr@k Explaining Advanced Analytics to Company Directors

STATtr@k is a column in *Amstat News* and a website geared toward people who are in a statistics program, recently graduated from a statistics program, or recently entered the job world. To read more articles like this one, visit the website at <http://stattrak.amstat.org>. If you have suggestions for future articles, or would like to submit an article, please email Megan Murphy, *Amstat News* managing editor, at megan@amstat.org.



Smith

Contributing Editor

Daniel Smith has been a reliability engineer at Cox Communications since 2005. He completed his undergraduate studies at Emory University and earned an MBA with a concentration in statistics at the Georgia Institute of Technology, where he also received his Six Sigma Black Belt training.



Online Articles

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

The **Bangladesh Academy of Sciences (BAS)** organized a seminar titled “Dominant Role of Statistics in Contemporary Science and Technology” in the Bangladesh Science Museum Buildings in Dhaka October 1. The speaker of the seminar was Shahjahan Khan from the University of Southern Queensland, Australia. To view pictures and read more about the seminar, visit http://magazine.amstat.org/blog/2014/11/04/bas10_14.

The **National Institute of Statistical Sciences (NISS)**, along with the U.S. Census Bureau, RTI International, and Westat, held the 8th annual International Total Survey Error Workshop (ITSEW) in Washington, DC, October 1–3 at the Bureau of Labor Statistics Conference Center. The theme of the 2014 workshop was Total Survey Error: Fundamentals and Frontiers. To view pictures and read more about the event, visit http://magazine.amstat.org/blog/2014/12/01/nissconf10_14.

Make the most of your ASA membership
Visit the ASA Members Only site: www.amstat.org/membersonly.

Visit the **ASA Calendar of Events**, an online database of statistical happenings across the globe. Announcements are accepted from educational and not-for-profit organizations. To view the complete list of statistics meetings and workshops, visit www.amstat.org/dateline.

departments

- 14 **the world of statistics**
Big Data, Better Data in Sight
- 16 **meetings**
JSM 2015: Call for Abstracts, Chairs
- 18 **education**
2015 Internships



member news

- 30 Awards and Deadlines
- 31 People News
- 34 Section • Chapter • Committee News
- 37 Professional Opportunities



People News: Emory Bioinformatics Celebrates 50 Years
Page 31



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A Few of My Favorite Things (About Being ASA President)

In my January President's Corner (<http://bit.ly/1v3l5Mi>), my Presidential Address (<http://bit.ly/1xxyz1z>) at the Joint Statistical Meetings (JSM), and other speeches I've given, I mentioned the doubts I had in 2011 about whether to accept the nomination for ASA president. I'd already served two three-year terms on the board of directors. If I were elected, my employer would require me to serve on my own time. And during my presidential year, my son would enter college (<http://bit.ly/1sCsmi>).

Well, now I'm approaching the end of my presidential year, writing my final President's Corner while lying on my living room sofa. I'm a bit more tired than I was when my term began, and my vacation-time balance is approaching zero, most of it having been spent on ASA work. My mind ponders the question, "If you had a 'do over,' would you accept the nomination again?" And my immediate, unequivocal response is "absolutely." Why? Because without a doubt, this has been one of the best experiences of my career! In this column, I'd would like to discuss a few of my favorite activities thus far.

Meeting and communicating with members of the ASA and our profession. I've had the pleasure of visiting with and addressing members of the ASA and our profession at meetings of the Nevada, Southern California, Florida, and Connecticut chapters (<http://bit.ly/11hMiOf>) and at the 2014 Conference on Statistical Practice (CSP) (<http://bit.ly/1tHOPZC>) and JSM. I've also enjoyed meeting with ASA committees, sections, councils, and other groups. Early in December, I'll attend a meeting of the Boston Chapter (<http://bit.ly/14dq6Ge>) and celebrate the ASA's 175th anniversary close to the date of the ASA's first meeting (in Boston)—November 27. And in the last week of the year, my final activity as president will be to attend and deliver the keynote address at the Institute of Applied Statistics, Sri Lanka International Conference (<http://louisville.edu/sphis/bb/iassl-2014>). Such speaking engagements have been exciting, but just as rewarding

has been meeting with and getting to know so many members of the ASA and our profession. Their enthusiasm, energy, and ideas have helped keep me going strong and are crucial to the success of our association and profession.

Making committee appointments. Speaking of communicating with ASA members, I was the last president-elect to make the full complement of 150 or so ASA committee appointments. Starting this year, we lightened the load on the president-elect by delegating the majority of the appointments to the Leadership Support Council (<http://bit.ly/1wm0Bjf>) and others with more direct oversight and knowledge of the committees. To tell the truth, the process of making 150 committee appointments—researching the interests and qualifications of potential appointees, making several phone calls and writing hundreds of emails, keeping track of progress via spreadsheets, etc.—was a lot of work and wasn't my biggest thrill. So why do I include this activity among my favorites? Because witnessing our members' interest in serving the association and the profession was gratifying. Not only did the vast majority of the invitees accept appointments, but they did so with grace and enthusiasm. Many of them even thanked me for the honor!

Formulating initiatives and observing their progress. At the same time I was making committee appointments, I was thinking about possible initiatives consistent with the ASA strategic plan (www.amstat.org/about/strategicplan.cfm). The exercise of formulating initiatives for my presidential year was stimulating and rewarding. I want to thank my predecessors as president—Bob Rodriguez and Marie Davidian—and Executive Director Ron Wasserstein for their thoughtful guidance during that time and others. Thanks also to Bob and Marie for co-formulating and co-leading our joint initiative on Big Data and data science (<http://bit.ly/1tH4OFx>).

Perhaps even more rewarding than formulating initiatives has been watching their progress.



Nat Schenker

I must thank ASA board members Nick Horton, Janet Buckingham, and David Banks, as well as the members of the workgroups they've chaired, for their great work on updating the ASA Guidelines for Undergraduate Programs in Statistical Science (<http://bit.ly/10ZpLVC>), developing training in statistical leadership (<http://magazine.amstat.org/blog/2014/05/01/pres-corner-may14>), and developing a prototype Statistical Commons (a web repository for various types of statistical material) (<http://bit.ly/1pASw19>), respectively. Nick's group's updated guidelines, which are thoughtful and impressive, were endorsed by the board at its November meeting. Janet's group developed a successful and highly rated short course for JSM 2014 (www.amstat.org/meetings/jsm/2014/psd.cfm), and a future group will conduct follow-up work on this and other courses. And David's group created a useful, multi-functional prototype, which a follow-on group will develop further with an initial emphasis on material for statistical education.

Working with the ASA Board of Directors, executive director, and staff. During my three terms on the ASA Board, I've attended more than 30 board meetings. You might think I'm crazy, or perhaps a glutton for punishment, but I have to admit I love these meetings. The board members are terrific, and I now count many of them among my friends. The meetings give me a chance to think about various issues and aspects of our profession in a way that wouldn't be possible in my regular job. And Ron Wasserstein makes sure to structure the meetings in such a way that the board can think at a high level, without becoming bogged down in details.

Speaking of Ron, I've said in the past and I continue to believe that one of the most important contributions I've made to the ASA and the profession was to take part in the 2006 board's vote to appoint him as executive director. He's smart, creative, and forward thinking. He also seems to have boundless energy and he leads a terrific staff (www.amstat.org/staffdirectory.cfm), which has served the membership well, made numerous important contributions to our association's initiatives, and been a pleasure for me to work with as president.

Witnessing the continuing success of the Conference on Statistical Practice (<http://bit.ly/1EtUORp>). I had the good fortune, as an ASA vice president beginning in 2008, to lead a workgroup on meetings appointed by then president-elect Sally Morton. Sally charged us with thinking about possible additions to the ASA's meetings portfolio as a benefit to members and a source of additional revenue in the face of shrinking revenues from other sources. My workgroup formulated the initial proposal for CSP, which the board approved in 2009

(<http://bit.ly/1zjQtUK>), and I've been thrilled with CSP's progress since then. The conference, which was first held in 2012, is a wonderful resource for statistical practitioners to learn about important methodology and applications, and it is at the leading edge of the ASA's efforts in personal skills development (<http://bit.ly/1xt0L4G>). Attendance has grown by about 50 participants per year, from about 300 in 2012 to about 400 in 2014. I hope the conference continues to grow while keeping its intimacy and distinct character.

ASA's 175th anniversary. This column wouldn't be complete without my mentioning our association's anniversary (<http://magazine.amstat.org/blog/2014/01/01/175-and-counting>). The 175th Anniversary Steering Committee, appointed by Bob Rodriguez and chaired by Christy Chuang-Stein, has done a fabulous job of creating resources such as the anniversary website (www.amstat.org/asa175/index.cfm); planning activities for celebrating our past (www.amstat.org/asa175/celebrateourpast.cfm), highlighted by the celebration at JSM 2014 (<http://bit.ly/1tH74wC>); and specifying three areas of focus for energizing our future—statistical education, membership growth, and communicating the positive impact of statistics (www.amstat.org/asa175/energizeourfuture.cfm). One of the ASA's initiatives in these areas is a public relations campaign for statistics (<http://magazine.amstat.org/blog/2014/10/01/this-is-stats>), *This Is Statistics* (<http://thisisstatistics.org>). I'd like to thank Mary Kwasny and the other members of the board workgroup she chairs for providing oversight for this exciting initiative (<http://bit.ly/14dtZuX>).

What a wonderful year to serve as president and to deliver the Presidential Address! And a shout out to Steve Stigler, whose President's Invited Address, "The Seven Pillars of Statistical Wisdom" (www.amstat.org/meetings/jsm/2014/webcasts/index.cfm), delivered before a packed house at JSM 2014, was especially appropriate for our anniversary celebration.

In closing, I'd like to wish David Morganstein—my successor, colleague, and friend—a great year as president in 2015. David's history of excellent service to the ASA and the profession, and the success of his initiatives to date, such as the pilot JSM 2014 docent program led by Mary Kwasny (www.amstat.org/meetings/jsm/2014/firsttimeattendees.cfm), bode well for his presidential year. I'd also like to thank the members of the ASA Committee on Nominations, as well as the ASA members, for giving me the opportunity to be president. It's been a pleasure serving you and the profession, and I look forward to continuing as past president next year!

Nathaniel Schenker

Will Your 2015 JSM Poster Have Statistical Significance?

A \$250 prize will be awarded to the JSM poster that includes a *Statistical Significance* piece judges deem describes the best contribution of statistics to society. (Note: Participation in this competition is only available to contributed poster authors who submit their poster abstract by February 2, 2015.)

What constitutes a *Statistical Significance* piece? *Statistical Significance* is a one-page illustration of the value of statistics to society within the context of the research problem dealt with in the poster submitted for JSM presentation. The objective is to illustrate to a lay person how the statistical solution to the problem presented in the poster would help form decisions that improve our society in specific areas such as health, agriculture, economy, education, manufacturing, medicine, etc.

This specific piece should be clearly written to convey the beneficial role of statistics in a concise and unambiguous manner. The most effective *Statistical Significance* pieces are easy to develop, simple in exposition, enlightening, and fun to read! See www.amstat.org/policy/statsig.cfm for examples.

Participants must include a one-page *Statistical Significance* piece with their poster presentation at JSM. Both the scientific merit of the poster and the *Statistical Significance* piece will be judged. However, posters without the separate *Statistical Significance* page will be ineligible to win the competition, even if they participate in the competition.

A panel of judges will visit the posters during a special topic-contributed session at JSM and determine a winner by the morning of August 12, 2015. The winner will be notified immediately thereafter.

To enter, email your intention to compete (including your abstract number) to Vicky Pzonka on behalf of Sreelatha Meleth and Daniel McCaffrey at vpszonka@ets.org when you submit the poster abstract and no later than midnight



February 22, 2015. Feel free to contact Meleth or McCaffrey at smeleth@rti.org or dmccaffrey@ets.org with questions. ■

Statistics Without Borders Partners with Statisticians for Society

The ASA's outreach group **Statistics Without Borders (SWB)** recently joined with the **Royal Statistical Society's (RSS) Statisticians for Society**, an initiative that enables statisticians to support charities and other socially useful initiatives on a pro bono basis.

Sara McDonnell, web news editor for the RSS, wrote, "By partnering with existing organizations, the RSS has an 'in-place structure' for fellows to participate in volunteer projects." Now when members of the RSS join Statisticians for Society (SFS), they will also become members of Statistics Without Borders. Both organizations share similar philosophies and goals—to develop projects for statisticians to provide pro-bono services worldwide.

"The ASA is proud to have Statistics without Borders as an ASA outreach group and very impressed by its growth to more than 1,200 members in six years," said ASA Executive Director Ron Wasserstein. "Through its pro bono (and enthusiastic) work worldwide, SWB epitomizes ASA emphasis of statistics' service to society and also serves the important function of informing a wider audience of what statistics is and the important contributions statistics makes to so many aspects of society. We're pleased by this partnership with RSS to further expand SWB's good work."

For more information about Statisticians for Society, visit www.statlife.org.uk/members-area/statisticians-for-society. To become involved in Statistics Without Borders, visit <http://community.amstat.org/StatisticsWithoutBorders/home>. Questions may be addressed to SWB chair Cathy Furlong at cathy.furlong@cox.net or New Projects Committee chair Gary Shapiro g.shapiro4@live.com.

NSF Extends Program Funding Interdisciplinary Research of Mathematical Scientists

Steve Pierson, ASA Director of Science Policy



More online
For the perspective of a mathematician on how a DMS panel is run, visit <http://bit.ly/1Eud41T>.

The National Science Foundation's Division of Mathematical Sciences (DMS) has extended its Mathematical Science Innovation Incubator (MSII) Program (<http://1.usa.gov/1GPpdm1>) through fiscal year 2015 (FY15), which started September 1. Launched in FY14, the program is meant to support the interdisciplinary work of mathematical scientists across the NSF directorates.

Mathematical scientists who submit a proposal to a National Science Foundation (NSF) division other than DMS are asked to send an email to DMScofunding@nsf.gov with the NSF proposal ID and names of the mathematical scientists on the proposal. Assuming certain criteria are met (including the area being new for mathematical scientists), DMS will contact the other division about potentially co-reviewing and co-funding the proposal.

The MSII program announcement best summarizes the rationale for the program:

The ideas, tools, and language of mathematics and statistics play important roles in every

Advice for Those Submitting Proposals

ASA staff members have been meeting with NSF officials from across the directorates regularly to make the case for how statistics can make science better and gain advice to pass along to the statistics community. NSF officials regularly encourage statisticians to submit more proposals. We also hear potential applicants should speak with a program officer before submitting a proposal to be sure the proposal is a good fit for a particular program and, when submitting a proposal, applicants should suggest reviewers for it. Finally, to really understand the NSF process and its priorities, statisticians should consider being a program officer or, at the minimum, serving on a panel reviewing a proposal.

When seeking potential reviewers for the Education and Human Resources (EHR) directorate, Carolyn Cuff—professor of mathematics at Westminster College—made the following comments:

Looking for a rewarding challenge over a short period of time?

Consider reviewing NSF proposals. It's been an interesting experience that I recommend. Reviewing proposals offers opportunities to develop professionally, to move the field forward, and to give back to the larger scientific community. Each review consists of reading descriptions of approximately 10 projects (usually 15 pages each), pursuing supporting documents, discussing each project with colleagues, and writing recommendations to the NSF staff and principal investigator (PI).

Reading through the range of proposals suggests ways to improve your own grant requests. NSF staff create a diverse discussion group for each review, called a panel. The diversity of the panel reflects the particular NSF division. For example, for the Division of Undergraduate Education, panels are composed of faculty from major universities, regional comprehensive institutions, community colleges, and liberal arts colleges. The panel discussions have given me a rare opportunity to discuss projects across this wide spectrum of institutions, as well as across mathematical disciplines.

Enjoying playing in everyone's backyard can be taken one step further. As a reviewer, I've seen the backyard blueprints, commented on construction, and offered suggestions for improvement. And then I got to go home, watch the new backyards develop, and know I had a small—but statistically significant—part in some of them.

Statisticians are needed to review and potentially, through that review process, improve project study and evaluation designs. A good project may become a great project with a better design. As a reviewer, you have the chance to enhance the design. NSF panels need your expertise. To be considered as a reviewer, visit the NSF Division of Undergraduate Education (www.nsf.gov/div/index.jsp?div=DUE) and click on the link for Reviewer Recruitment Form.

area of science and engineering research supported by the National Science Foundation, and it is widely recognized that interactions between the mathematical sciences and other fields catalyze developments in both. The Division of Mathematical Sciences wishes to foster the participation of more mathematical scientists, from every area of mathematics and statistics, in such important interdisciplinary work. In support of this goal, the MSII activity provides funding to catalyze the involvement of mathematical scientists in research areas where the mathematical sciences are not yet playing large roles.

For FY15, interdisciplinary research in national high-priority scientific research is likely to be given preference. The program announcement lists 20 solicitations covering the topics of advanced manufacturing, clean energy, global climate change, informed policymaking and management, information technology (which includes Big Data), and biology and neuroscience.

MSII funding amounted to \$3.8 million for 22 awards in FY14. The Mathematical and Physical Sciences Directorate Office of Multidisciplinary Activity provided \$1 million of this funding. They are hoping to increase this amount in FY15 and encourage greater community involvement.

Two statisticians received DMS funding through MSII in FY14. Bret Larget of the University of Wisconsin was funded for his proposal, “Improved Bayesian Phylogenetic Inference Based on Approximate Conditional Independence,” to the Division of Environmental

Biology in the Directorate for Biological Sciences. Liam Paninski was funded for his proposal, “Naturalistic Computation and Signaling by Neural Populations in the Primate Retina,” to the Division of Information and Intelligent Systems in the Directorate for Computer and Information Science and Engineering.

There are two statistics program officers for MSII: Gabor Szekely and Xiaoming Huo. The ASA encourages the statistical community to participate in MSII, since it is an ideal way to have the interdisciplinary work of statisticians both funded and recognized. ■

Voting in the 2015 ASA Election Made Easy



The 2015 ASA election opens March 13 and runs until May 1. To be sure members receive email information about the election, we recommend members take the following steps prior to March 13:

—Make sure you have a valid email address on file with the ASA. Members with a valid email address will receive an email from Votenet containing a URL that will take them directly to their ballot to vote. Members who do not have a valid email address on file will receive a postcard with instructions for casting their vote. You may update your membership record by logging into Members Only at www.amstat.org/membersonly or calling customer service at (888) 231-3473.

—We also urge you to whitelist the email address of the ASA's election vendor to ensure you receive the election correspondence during the election term. Please add support@votenet.com to your safe list; this action will ensure the proper delivery of key election information regarding the ASA election. Instructions for whitelisting can be found at www.aweber.com/blog/how-to-whitelist-us.

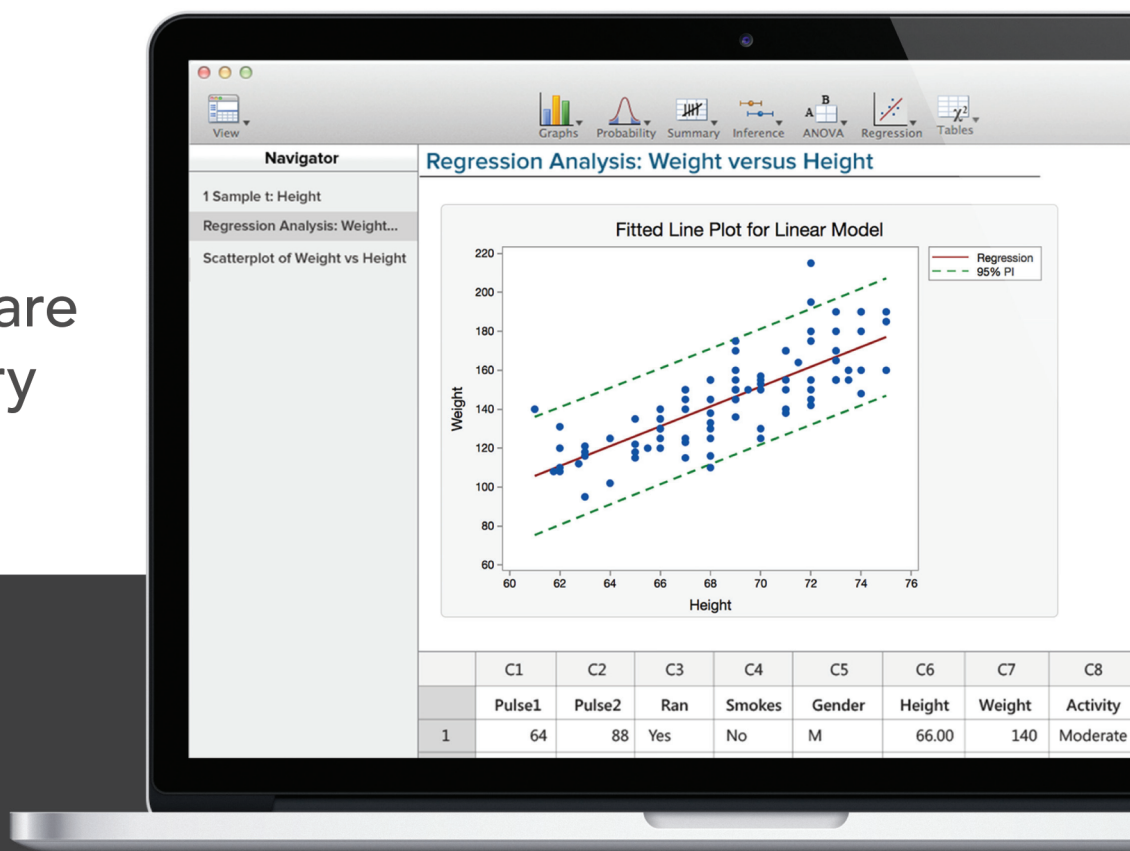
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Training Students to Extract Value from Big Data

Michelle Schwalbe

The workshop report *Training Students to Extract Value from Big Data* (www.nap.edu/catalog.php?record_id=18981) from the National Research Council's Committee on Applied and Theoretical Statistics (CATS) (http://sites.nationalacademies.org/DEPS/BMSA/DEPS_047575) is available for free download.

Data sets—whether in science and engineering, economics, health care, public policy, or business—have been growing rapidly. The recent influential NRC report *Frontiers in Massive Data Analysis* (www.nap.edu/catalog.php?record_id=18374) by CATS and the Board on Mathematical Sciences and their Applications documented the rise of Big Data, as systems are routinely returning terabytes, petabytes, or more information. The size and scale of data, which can be overwhelming today, are only increasing. In addition, data sets are increasingly complex, and this potentially increases the problems associated with such concerns as missing information and other quality concerns, data heterogeneity, and differing data formats.

A key challenge is to develop the experts needed to draw reliable inferences from large and complex data sets. The nation's ability to make use of the data depends heavily on the availability of a properly trained work force. It is important to increase the pool of qualified scientists and engineers who can extract value from Big Data.

The CATS Training Students to Extract Value from Big Data workshop took place from April 11–12 in Washington, DC, and explored the need for training in Big Data (through experiences and case studies); principles for working with Big Data; courses, curricula, and interdisciplinary programs; and shared resources.

As discussed by the workshop participants, training students to be capable in exploiting Big Data requires experience with statistical analysis, machine learning, and computational infrastructure that permits the real problems associated with massive data to be revealed and, ultimately, addressed. The availability of repositories (of both data and software) and computational infrastructure will be necessary to train the next generation of data scientists. Analysis of Big Data requires cross-disciplinary skills, including the ability to make modeling



Workshop co-organizers Raghu Ramakrishnan of Microsoft and John Lafferty from The University of Chicago discuss what is meant by the analysis of Big Data.

decisions while balancing trade-offs between optimization and approximation, all while being attentive to useful metrics and system robustness. To develop these skills in students, it is important to identify whom to teach, that is, the educational background, experience, and characteristics of a prospective data science student; what to teach, that is, the technical and practical content that should be taught to the student; and how to teach, that is, the structure and organization of a data science program.

One impetus for the workshop was the current fragmented view of what is meant by analysis of Big Data, data analytics, or data science. New graduate programs are introduced regularly, and they have their own notions of what is meant by those terms and, most important, of what students need to know to be proficient in data-intensive work. What are the core subjects in data science? It is clear that training in Big Data, data science, or data analytics requires a multidisciplinary foundation that includes at least computer science, machine learning, statistics, and mathematics and that these disciplines should work together to develop curriculum for these training programs.

The topic of training students in Big Data is timely, as universities are already experimenting with courses and programs tailored to the needs of students who will work with Big Data. The workshop was designed to enable participants to learn and benefit from emerging insights while innovation in education is ongoing.

For more information about this workshop and other CATS activities, contact Michelle Schwalbe at mschwalbe@nas.edu. ■

More online
Videos and presentations from the workshop are available at <http://bit.ly/1qEdLj2>.



The Future Lies Ahead

Stephen M. Stigler

Our 175th year is coming to an end, and with that come two temptations. One is to look forward to the 200th anniversary, 25 years from now. The other is to look backward at the past 175 years and assess what we have accomplished. The shorter view, looking forward, is the one I will take here, and it should be the easier of the two, but it is not—at least if some semblance of accuracy is expected.

Fifty years ago at our 125th anniversary, our president, Allen Wallis, was asked to predict an even more distant future, and he told a story. At The University of Chicago in 1952, he had been on a panel assembled to celebrate the 10th anniversary of the first controlled nuclear reaction. The panelists—Enrico Fermi was another member—were asked to predict when the generation of electricity



through atomic energy would become competitive. Wallis, as a true statistician, approached this question (for which there was no usable data) honestly. “My prediction is that none of the predictions made here will bear any relation at all to what is going to happen.” When he repeated that statement in 1964, he had already been proven correct in several cases.

The pace of change in 2014 is much faster than in 1964, and looking forward is naturally more difficult. There is one compensating factor, however. The increase in publication rate and rapid change in format make it increasingly unlikely that anyone in 2039 will ever see these remarks. And this alleviates the usual worry a scholar might have, namely being proven wrong. And so encouraged, I offer a few unusually precise predictions. I predict (with unwarranted confidence) that in 2039:

- The ASA will no longer issue any printed publications; instead, it will host “in the cloud” a set of continuously changing databases, each linked to a set of also continuously changing analyses, constantly changing in rank order via a refined page rank algorithm.
- The annual meeting will become a purely social event, the speed of knowledge transmission having made the presentation of new results nearly impossible.
- D. R. Cox’s 1972 article on proportional hazards regression will remain the most highly cited item in statistics, the number of citations by then having passed 1 million.
- Statistics textbooks will survive, but only barely, driven primarily by the demand for their use from professors who received tenure before 2020.
- The ASA will be thriving and enjoying a new membership base as statistics increases its presence in the K–12 curriculum and the world realizes we are the discipline best able to cope with information surfeit.

I plan to save this column and trumpet it loudly in 25 years, but only if my predictions should turn out to be accurate. Meanwhile, the anniversary celebration is over—time to get back to work! ■

This month in ASA’s history... DECEMBER

1839

December 18, 1839, the ASA elected its first officers. During the second meeting of the ASA, the young society elected 15 officers: President Richard Fletcher, two vice presidents, a recording secretary, a home secretary, a foreign secretary, and nine counselors. The entire list of ASA presidents is available at http://en.wikipedia.org/wiki/List_of_presidents_of_the_American_Statistical_Association.



1960

December 27–30, 1960, the ASA had two meetings: the “Joint Meetings,” which were held in August, and the “Allied Social Science Association” meeting, which was held in December in St. Louis, Missouri. The joint association included the Academy of Management, American Association of University Teachers of Insurance, American Economic Association, American Farm Economic Association, American Finance Association, American Marketing Association, Catholic Economic Association, Econometric Society, Industrial Relations Research Association, and Regional Science Association.

More online
Additional events took place in December. Find out what they were in **This Month in ASA’s History** at <http://magazine.amstat.org>.

1962

Fred Mosteller of Harvard University wrote about his experience with the “Continental Classroom” program in an article published in the December 1962 issue of *The American Statistician*. “Continental Classroom” was the first nationwide effort at distance learning. In the late 1950s, NBC began broadcasting a four-year series on physics, chemistry, mathematics, and government. The mathematics year consisted of algebra and a probability and statistics strand taught by Mosteller.



1989

On December 9, 1989, 100 members attended the sesquicentennial banquet at the Omni Parker House in Boston, Massachusetts. The Parker House was only a short distance from the location of the founding site of the association, 15 Cornhill Street.

Famous December Birthdays

Harry Clyde Carver, Ada Byron Lady Lovelace, Frederick Mosteller, Janet Norwood, Donald Rubin, and Helen Walker

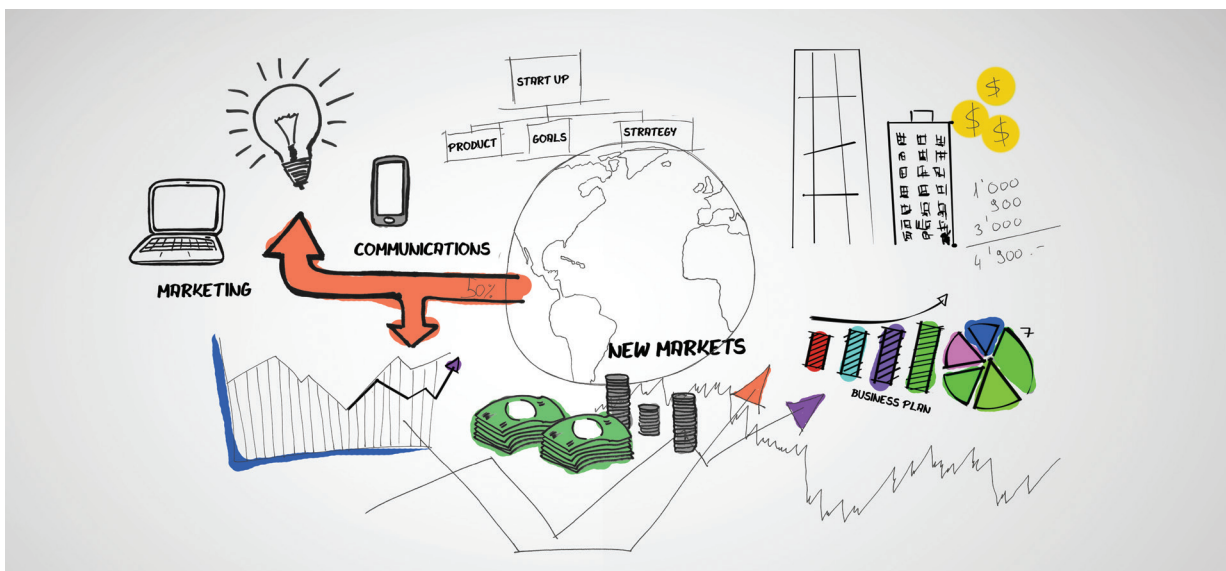
STATtr@k

Explaining Advanced Analytics to Company Directors

Daniel Smith, Cox Communications

“Imagination is more important than knowledge.”

~ Albert Einstein



Congratulations! You’ve just graduated from college or graduate school after specializing in advanced analytics, received a job offer, and, as your reward, you now get to try to communicate specialized topics to people who have no idea what you’re talking about. Statisticians have little problem communicating with each other, but how do you translate complex ideas to company leaders who specialize in other areas? This can be a problem in any company, regardless of the size.

Fortunately, there are a few tricks of the trade you can employ that make communicating statistical ideas a little less worrisome. Just like a doctor explaining to someone who’s ill

what’s happening to their body or an auto mechanic telling you why your car isn’t working, a good statistician can choose several methods to clearly convey what his/her message is.

The quote at the top of this article speaks to that. A company leader may not have a lot of statistical knowledge, but by tapping into their imagination, you can enable them to understand complex mathematical concepts.

A Picture Is Worth 1,000 Words

You could be well versed at discussing terms such as “statistical significance” or “inherent variation,” but company leaders outside the statistics world may still have issues understanding you. This is why putting charts and

graphs in front of them makes explaining advanced topics so much easier.

For instance, you may be comparing two processes, and after running the appropriate hypothesis test, you conclude process B is operating more efficiently than process A. If you tell the company leaders that the difference between the two is statistically significant based on the p -value of your hypothesis test, they may be confused. However, what if you show them a chart of confidence intervals for the key process indicators and explain that you are guaranteeing with 95% certainty that their true process average lies within these ranges? When they see the intervals do not overlap, they will intuitively understand the statistical significance, even if

they cannot formally define statistical significance.

Box plots often work as well as confidence intervals, but I prefer using box plots for skewed data so the outliers are easy to spot. Before-and-after process snapshots using histograms are also visually effective. If you can demonstrate the entire distribution has shifted, then improvements in process averages are less likely due to an extreme outlier and more likely due to overall process improvement.

Be Overly Analytical

When discussing advanced topics, people tend to jump to conclusions based on your data because they see the next step as logical. This can have drastic implications if you don't take the time to explain to them what the data are saying, and often times more importantly, what the data are not saying. This generally occurs in situations in which we fail to reject our null hypothesis.

In the aforementioned example, let's say you find no statistically significant differences after comparing processes A and B. If you explain to your boss that we should not reject process A in favor of process B, your boss may conclude that process A is better than process B. In reality, you have not proven that. All you have proven is that we should not reject process A in favor of process B. The possibility that the two processes are equal still exists (See "Mathematical Myopia: Debunking Common Six Sigma Misconceptions" at <http://magazine.amstat.org/blog/2013/11/01/mathmyopia>). Without being overly analytical, simple mistakes like this can become routine as people outside the world of statistics infer what they believe as the logical conclusion. It's your responsibility to keep that from happening.


Let the Data Speak


Often, people see what they want to see in analysis results with regard to a preconceived agenda. Many times, this will be tied to a past or future financial investment, seeking to either justify spending or defend it through analytical leaps the data doesn't necessarily support. When this occurs, it is important to keep the interpretation of your results on point. After all, you're not trying to make the data look good or bad. The data should be interpreted in the way that most accurately depicts what the true story is.

This also can become a situation in which how you say something may be more important than what you say. For example, if someone in a leadership role completely misinterprets a recent analysis you have completed and you let them know how badly

they misconstrued your information, they may feel insulted and less inclined to hear your main point. However, if you acknowledge their perception and explain why it's slightly off point, they may be more willing to keep an open mind. Remember, you are the expert and it is your job to make sure your analysis results are understood correctly. Don't let someone else's agenda dictate the way your data are perceived.

I don't want to completely discount the countless other influences that can affect how your message is perceived, some of which may be outside your immediate control (e.g., company politics, public speaking, open-mindedness of your company's leaders, etc.). However, focusing on the points mentioned above should aid you greatly in your quest to translate complex messages into easy-to-understand terms. ■

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NEWS FROM THE WORLD OF STATISTICS

Big Data, Better Data in Sight

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Five universities in Beijing jointly have created a Big Data Analysis master's program. This program will use statistics, computer science, economics, and management courses offered by the participating institutions: Renmin University of China, Peking University, University of Chinese Academy of Science, Central University of Finance and Economics, and Capital University of Economics and Business.

The inaugural 56 students from the five universities graduated with distinction, are interested in Big Data analysis, and want to contribute to this field.

The program was set up as one platform, combining politics, industry, education, and research. Its goal is to meet the growing need for Big Data analysis to make scientific decisions in government and enterprises by creating core competencies that enable students to discover knowledge and values from large data efficiently.

Better Data to Monitor Working Status of Women

An International Labour Organization (ILO)-Data2X roundtable, held recently in Switzerland, brought together representatives from national statistical offices, key international and regional organizations, donors, nongovernmental organizations, and users to find solutions to gender data gaps in processes to monitor the status of women in informal employment, unpaid work, and work in rural areas and agriculture.

Data2X is a partnership between the U.S. State Department, United Nations Foundation, and William and Flora Hewlett Foundation. Its goal is to advance gender equality and women's empowerment and further global economic and social gains through improved data collection and analysis that can guide policy, leverage investments, and inform global development agendas.

The roundtable participants identified the following opportunities for data improvement:

- Operationalize the 19th International Conference of Labour Statisticians (ICLS) resolution on work statistics standards
- Build strong partnerships, sharpening the collective vision and coordinating actions
- Increase the value of the data collected and make the case for better data use
- Coordinate surveys and questionnaires better to reduce the burden of data reporting on countries
- Build on proven cases using innovative approaches, better technology, and Big Data
- Advocate for closing gender data gaps in informal and unpaid work

The ILO-Data2X team and Food and Agriculture Organization of the United Nations will follow up on these areas.

Read more at www.worldofstatistics.org/files/2014/10/October-30-2014.pdf.

Participant News

Philippines—The Philippine Statistics Authority (PSA) recently celebrated its first anniversary. A 2013 law merged the National Statistics Office, National Statistical Coordination Board, Bureau of Agricultural Statistics, and Bureau of Labor and Employment Statistics to create the PSA.

Romania—The National Institute of Statistics will host a conference April 23–24, 2015, titled “New Challenges for Statistical Software—The Use of R in Official Statistics,” in Bucharest. Researchers from academia and statistical institutes will present, exchange ideas, and discuss



developments in state-of-the-art statistical software used in applied economics and statistics. Get more information at <http://r-project.org/conference2015>.

International—The International Statistical Institute and Brazilian Institute of Geography and Statistics are accepting submissions of contributed papers for both oral and poster presentations for the 60th World Statistics Congress (WSC). The submission page is accessible at www.isi2015.org. The submission deadline is February 13. The WSC 2015 will take place in Rio de Janeiro, Brazil, July 26–31.

Chile—The First Latin American International Statistical Institute Satellite Meeting on Small Area Estimation will be held August 3–5, 2015, in Santiago. Cosponsors are the International Statistical Institute, International Association of Survey Statisticians, Catholic University of Chile,

Chilean Statistical Society, National Institute of Statistics, and Ministry of Social Development. It will bring together mathematical statisticians and practitioners working on small area estimation in academia and private and government agencies. More information is available at www.encuestas.uc.cl/sae2015.

Spain—You are invited to attend the Second Virtual Conference on Teaching Statistics, Probability, and Combinatorics, organized by the Teaching of Statistics, Probability, and Combinatorics Research Group of the Spanish Society for Research in Mathematics Education and the Statistics Education Research Group of the University of Granada. The online conference will be held April 10–12, 2015. Visit www.judiesproyco.es for more information.

Read previous issues of *News from The World of Statistics* at www.worldofstatistics.org/news-of-the-world-of-statistics-archive. ■



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JSM 2015: Call for Abstracts, Chairs

Annie Qu, 2015 JSM Program Chair

The 2015 Joint Statistical Meetings (JSM) will be held in Seattle, Washington. This is the largest annual statistics conference held in North America each year. The theme for JSM 2015 is “Statistics: Making Better Decisions,” which focuses on making an impact on decision-makers in government, organizations, industry, business, and large societies through better decisionmaking and well-informed policies using data-driven statistical methods and computing tools.

The JSM 2015 Program Committee has put together 183 invited sessions. The topics are interesting and diverse, ranging from new machine learning methods and computing tools to personalized medicine, Big Data visualization and graphics, imaging data, health policies, and fun sports data. I hope you will enjoy the program and participate by presenting your work, attending talks, visiting poster sessions, and taking Continuing Education courses.

Speed Sessions

The speed sessions were launched successfully at JSM 2013. A speed session consists of 20 oral presentations of four minutes each, with a 10-minute break after the first set of 10 talks. The short oral presentations are followed by an e-poster session on the same day. Due to positive feedback from the audience and participants, we hope to increase the number of speed sessions this year and reduce the number of parallel contributed talk sessions. For the speed sessions, electronic poster boards will be provided to speed presenters to eliminate the cost of printing posters.

When you submit your contributed abstract, simply select “Speed” as the sub-type.

August 8–13
JSM2015
Seattle



Poster Sessions

Poster sessions are a great way to generate more attention for your topic due to the use of effective visual display tools. You will have a better chance of interacting with your audience without worrying about time constraints.

Topic-Contributed Sessions

A topic-contributed session is organized around a common theme. The session typically consists of five speakers, either five papers or four papers with one discussant. Topic-contributed sessions have several advantages over contributed sessions:

- The talks are focused on one theme and more cohesive
- Each speaker has 20 minutes of presentation time, instead of 15 minutes
- Session slots are limited, so high-quality papers are chosen

Topic-contributed sessions require organizers to select a theme, invite five speakers, and ensure speakers' commitments prior to the submission deadline of January 15, 2015.

Contributed Sessions

Nearly half of JSM sessions are contributed sessions. Contributed sessions do not involve as much up-front planning. To present a contributed paper, you need to submit a title and abstract, along with the choice of the ASA section or JSM partner society most closely associated with the topic of your paper. These sessions consist of seven papers with 15 minutes of presentation time for each.

Abstract Submission

The online abstract submission system will close February 2, 2015. This deadline is firm, so please submit your abstract ahead of time. The system will be reopened for abstract editing from March 31 to April 16, 2015. To ensure a well-organized program, speakers must register for JSM when they submit their abstracts.

Session Chairs

All JSM sessions require a chair to ensure speakers are well informed about the session in advance, introduce speakers, and manage time for each speaker. Chairing a session is a great way to get involved with JSM. I especially encourage people who are new to the profession and JSM to consider chairing sessions by contacting the program committee members.

Finally, the success of JSM relies on your input and effort to help assemble a strong and exciting program. I look forward to your feedback. ■

SPECIAL INTEREST GROUP Statistics Instructors in Cyberspace

Statistics Instructors in Cyberspace is a new ASA special interest group that was established in October of 2014. The purpose of this group is to support statistics educators who teach online courses and/or have an interest in online teaching and online learning. Through participation in this professional community, educators will have opportunities to meet, connect with, and commiserate with other online educators; learn about new methods and tools appropriate for teaching online courses; and work toward an improvement in the quality of online statistics education for students. The group plans to meet regularly at the Joint Statistical Meetings (JSM) and maintain an electronic discussion list.

For details about becoming part of this group, contact Michelle Everson at everson.50@osu.edu.



2015 Internships

Every year, an edited list of internship opportunities for students is published in *Amstat News* and on the new professional's website, STATtr@k (<http://stattrak.amstat.org>). If your organization would like to include an internship opportunity online, please complete our form at www.amstat.org/education/internships.cfm. Interested students will send a letter of inquiry and résumé directly to the contact and location you list. Contact educinfo@amstat.org with questions.

Additional internships will be posted as received on the education section of the ASA website (www.amstat.org/education).

AbbVie

North Chicago, Illinois

Number of Positions: Multiple

Type of Student: PhD in statistics, biostatistics, bioinformatics, and related disciplines

Deadline for Applying: January 31, 2015, though offers may be made prior

The Data and Statistical Sciences (DSS) organization in AbbVie R&D will have internship positions available for the summer of 2015. Internships will begin in May/June and are typically 10–12 weeks in duration, with housing provided to interns who are eligible. You will be provided with practical “hands-on” experience and given an opportunity to build your understanding of AbbVie and the pharmaceutical industry.

Statistics interns at AbbVie will be assigned specific projects within the DSS organization and work under the guidance of a senior statistician to perform statistical analyses and/or conduct statistical research in areas of interest to the organization (e.g., genomics, adaptive/novel design strategies in drug development, clinical trial simulation, benefit-risk assessment, etc.). Additionally, interns will have the opportunity to participate in statistical seminars and workshops offered during the summer. At the conclusion of the internship, each intern is expected to deliver a presentation summarizing key aspects of their work while at AbbVie.

Applicants must be enrolled in a graduate-level curriculum leading to a PhD in statistics, biostatistics, bioinformatics, or related disciplines; have completed at least two full years of graduate study prior to the start of their internship; be in good academic standing within their graduate program; and continue to be enrolled in graduate school for at least one semester following the completion of their internship. Applicants must demonstrate excellent communication and problemsolving skills and have strong working knowledge of SAS and/or R.

AbbVie (NYSE:ABBV) is a global, research-based biopharmaceutical company formed in 2013 following separation from Abbott. The company's mission is to use its expertise, dedicated people, and unique approach to innovation to develop and market advanced therapies that address some of the world's most complex and serious diseases. AbbVie employs approximately 25,000 people worldwide and markets medicines in more than 170 countries. For further information, visit www.abbvie.com.

Application Instructions: Interested applicants should apply by visiting careers.abbvie.com and searching for “statistics intern” (requisition number: 14000004EW).

AcademyHealth/National Center for Health Statistics

Hyattsville, Maryland

Number of Positions: 1–2

Type of Student: Junior (PhD dissertation stage) or senior (faculty, etc.)

Deadline for Applying: January 5, 2015

The National Center for Health Statistics (NCHS) and AcademyHealth are seeking applicants for the NCHS/AcademyHealth Health Policy Fellowship. This fellowship brings up to two visiting scholars to NCHS, the survey branch of the Centers for Disease Control and Prevention (CDC), for a 13-month period.

Fellows will conduct studies of interest to policy-makers and the health services research community, including conducting new and innovative analyses and participating in activities related to the design and content of future NCHS surveys. Fellows also will gain access to all NCHS data resources, work closely with NCHS staff on collaborative projects, and receive technical advice from experienced NCHS researchers.

Fellows will present research at a NCHS seminar; learn about the fundamentals of health policy development and implementation at AcademyHealth's Health Policy Orientation; and attend and present research at AcademyHealth conferences, including the National Health Policy Conference and Annual Research.

Applicants are strongly encouraged to complete the Statement of Interest form online prior to applying.

For more information about the NCHS/AcademyHealth Health Policy Fellowship, please visit <http://bit.ly/1qPgNko> or email nchs@academyhealth.org.

Contacts: AcademyHealth: Beth Johnson, beth.johnson@academyhealth.org; NCHS: Christine Lucas, clucas3@cdc.gov

Amgen, Inc.

Thousand Oaks and San Francisco, California

Number of Positions: Multiple

Type of Student: PhD

Deadline for Applying: February 6, 2015

Amgen's 10–12 week internship program offers meaningful project experiences that affect patient's lives, competitive compensation, executive networking events, social networking events, community volunteer project opportunities, onsite fitness, and much more. Also, limited transportation relocation may be available (for eligible candidates).

Interns will work closely with a senior-level statistician on topics related to the design and analysis of clinical trials and/or nonclinical research. Amgen research and development uses science and innovation to dramatically improve people's lives in various therapeutic areas, including oncology, nephrology, bone metabolism, cardiovascular, and inflammation. At the conclusion of the internship program, interns will give a presentation summarizing their work.

Visit www.careers.amgen.com/en for a full description. Only candidates who apply via the Amgen career site will be considered. Please search the database via career category—College Job, requisition #27979BR.

Amgen retains the right to add or change the duties of the position at any time. Amgen is an Equal Opportunity/Affirmative Action employer and will consider all qualified applicants for employment without regard to race, color, religion, sex, national origin, protected veteran status, or disability status.

Contact: Heather Koenig, University Relations Dept., One Amgen Center Drive, Thousand Oaks, CA 91320; (805) 313-2847; robertsh@amgen.com

Axio Research LLC

Seattle, Washington

Number of Positions: 2

Type of Student: Graduate student, MS and/or PhD

Deadline for Applying: March 31, 2015

The intern will provide SAS testing, statistical programming, and analysis support for research projects. He or she will generate SAS programs to analyze and produce reports based on clinical data. The intern also may perform statistical analyses (including preparations for Data Monitoring Committee reports, integrated summaries of efficacy or safety, final study reports, and publications).

Successful candidates will have bachelor's degree in math, statistics, or computer science or a bachelor's degree in another field with one year of experience or training in statistical programming. Candidates must be enrolled in a graduate degree program, preferably biostatistics. Master's- or PhD-level candidate preferred.

Contact: Julia Janosko, 2601 4th Ave., #200, Seattle, WA 98121; (206) 547-2829; (206) 547-4671 (fax); juliaj@axioresearch.com; www.AxioResearch.com; www.AxioCareers.com

Boehringer Ingelheim

Ridgefield, Connecticut

Number of Positions: Up to 5

Type of Student: MS or PhD in biostatistics, statistics, or a related degree program

Deadline for Applying: March 1, 2015

Boehringer Ingelheim seeks several summer biostatistics interns available in May/June for 12 weeks. Interns will build understanding of the pharmaceutical industry by supporting clinical trial/project teams under the guidance of experienced statisticians. This includes implementation of statistical analyses of clinical trial data/document writing/quality control/literature review. Candidates should be graduate students within an MS or PhD program in biostatistics, statistics, or a related degree with at least two years of study and have excellent communication/problemsolving skills. Interested applicants may go to <http://bit.ly/ZoKUHQ> or visit www.boehringer-ingelheim.com, click "careers," and then search for job #143889 to apply.

The Boehringer Ingelheim group is one of the world's 20 leading pharmaceutical companies. Headquartered in Ingelheim, Germany, it operates globally with 142 affiliates and more than 47,400 employees. Since it was founded in 1885, the family-owned company has been committed to researching, developing, manufacturing, and marketing novel medications of high therapeutic value for human and veterinary medicine. Social responsibility is a central element of Boehringer Ingelheim's culture. Involvement in social projects, caring for employees and their families, and providing equal opportunities for all employees form the foundation of the global operations. Mutual cooperation and respect, as well as environmental protection and sustainability, are intrinsic factors in all of Boehringer Ingelheim's endeavors.

Contact: Nanshi Sha, Boehringer Ingelheim Pharmaceuticals, Inc., 900 Ridgebury Road, Ridgefield, CT 06877; (203) 791-6714; (203) 791-4282 (fax); nanshi.sha@boehringer-ingelheim.com

Bristol-Myers Squibb

Princeton, New Jersey; Hopewell, New Jersey; Wallingford, Connecticut

Number of Positions: Multiple

Type of Student: PhD candidate in statistics or biostatistics

Deadline for Applying: None

Full-time internships, lasting 10–12 weeks, are available in the summer. Part-time internships are available during the school year and may continue for longer periods.

Successful candidates will work closely with a senior-level statistician on topics related to the design and analysis of clinical trials and/or non-clinical research. To be considered, you must have completed at least two years of course work and be working on your dissertation toward a PhD in statistics or biostatistics. Successful candidates must have effective oral and written communication skills and good working knowledge of SAS and/or R.

To apply, send unofficial graduate transcripts, a résumé, and cover letter to the contact below.

Contact: Rose Elcsics, Bristol-Myers Squibb, Mail Stop 2FW-310, 5 Research Pkwy., Wallingford, CT 06492; (203) 677-7279 (fax); rose.elcsics@bms.com

Chevron Oronite Company LLC

Richmond, California

Number of Positions: 1

Type of Student: Master's or PhD in statistics or a closely related field

Deadline for Applying: February 13, 2015

The successful candidate will work with a small team of highly experienced and skilled statistical consultants to support Chevron Oronite Products and Technology (P&T) and a variety of other Chevron clients. The team supports many function areas, including business management, product management, chemical research, product development, sales, and manufacturing. In addition to support in the United States, the position provides statistical support globally.

Key responsibilities for this position may include assisting deployment of effective statistical analyses, statistical problemsolving, and optimization techniques (e.g., experimental designs, predictive modeling, multivariate methods, hypothesis testing, sample size estimation) to improve decisionmaking, support exploratory chemistry, support marketing claims, improve process capability, and support strategic positions.

Most internships last 12 weeks. Required qualifications include the following:

- Pursuing a masters or PhD degree in statistics or a closely related field
- Experience using statistical software (SAS, JMP, and/or R) and business communication software (Microsoft Office)
- Good writing skills and willingness to give verbal presentations

Familiarity with the physical sciences is preferred.

Chevron is an EOE M/F/D/V company. It regrets that it is unable to sponsor employment visas or consider individuals on time-limited visa status for this position.

Contact: Please send résumé and cover letter to PandTRecruiting@chevron.com

Eli Lilly and Company

Indianapolis, Indiana

Number of Positions: Multiple

Type of Student: PhD students with at least three years of completed graduate work or master's students with at least one year of graduate program by the end of the spring semester 2015

Deadline for Applying: January 31, 2015

The Global Statistical Sciences Division of Eli Lilly and Company anticipates having several internships available for the summer of 2015. The internships start in either May or June and last 12 weeks.

We will provide you with practical experience and give you the opportunity to build your understanding of the pharmaceutical industry and Eli Lilly and Company. Successful candidates will be assigned specific projects to work on under the guidance of a Lilly statistician or statistical analyst (mentor).

Candidates must be a U.S. citizen or green card holder and enrolled in a graduate-level curriculum leading to a master's or PhD in statistics or biostatistics. Preferred skills include demonstrated leadership and the ability to influence; excellent communication, teamwork, and interpersonal skills; strong problem-solving skills; strong computational skills; creativity and innovation; and self-management skills. Visit the Eli Lilly and Company website to apply.

Contact: Ryan Burke, burke_ryan_neal@lilly.com

The EMMES Corporation

Rockville, Maryland

Number of Positions: 1–3

Type of Student: Graduate

Deadline for Applying: February 28, 2015

The EMMES Corporation, organized in 1977, is a privately owned contract research organization (CRO) dedicated to providing statistical and epidemiological expertise, computer systems development, data management, study monitoring, regulatory guidance, and overall operational support to clients engaged in clinical and biomedical research.

A biostatistics intern at The EMMES Corporation will work closely with biostatisticians on a variety of biomedical research projects. Under the guidance of a biostatistician, the intern will meet with epidemiologists, project coordinators, and biomedical investigators in the design and analysis of clinical research projects. To accomplish the responsibilities listed below, analyses will be performed using SAS or R. Key job responsibilities include performing descriptive and inferential statistical analysis, summarizing results using tables and graphs for presentation to the biomedical investigator or for manuscript preparation, and editing and finalizing research databases for statistical analysis.

For immediate consideration, please submit your résumé and apply directly at www.emmes.com. Select the "careers" option.

Federal Reserve Board

Washington, DC

Number of Positions: 3

Type of Student: Undergraduate who will be continuing with classes after the internship

Deadline for Applying: March 15, 2015

Assist in maintaining consumer and community development research projects related to low-to-moderate income communities. This is an unpaid, experiential learning opportunity.

General responsibilities include the following:

- Conduct background studies via database and library searches and contacting relevant federal/state/local agencies and organizations
- Assist consumer and community development research staff in collecting, preparing, and analyzing data from various sources and surveys as needed
- Assist in developing and disseminating short briefing documents and presentations

You will gain the following:

- Exposure to a variety of federal and nonprofit agencies based in Washington, DC
- Hands-on experience with the research process and mixed-methods (quantitative and qualitative) approaches to data analysis
- A greater understanding of the policy process and community development issues from a government perspective
- Ability to navigate and bridge research for community practitioners, policymakers, and analysts, as well as a broader understanding of applied regional, economic, and community development analysis

The qualified candidate must have excellent written and oral communication skills and be an independent worker. Courses in introductory and intermediate microeconomics, business, statistics, community development, communications, marketing, finance, and social policy are helpful. Knowledge of word processing (Microsoft Word) and spreadsheet (Excel) computer programs are essential. Knowledge of statistical software programs (SAS, Stata, etc.), database software (Access), and geographical information systems software are helpful.

Most internships span 10–12 weeks. Deadlines are flexible, but slots are limited and tend to fill 3–6 months in advance.

Contact: Alexandra Brown, 20th Street and Constitution Avenue, NW, Washington, DC, 20551; (202) 452-3112; alexandra.m.brown@frb.gov

Genentech Inc.

South San Francisco California

Number of Positions: 4–6

Type of Student: Graduate, pursuing PhD in statistics, biostatistics, or related field

Deadline for Applying: January 23, 2015

Genentech is a leading biotechnology company that discovers, develops, manufactures, and commercializes biotherapeutics for patients with significant unmet medical needs.

Our biostatistics summer interns work for 10–12 weeks under the supervision of experienced biostatisticians on theoretical or applied problems with direct relevance to ongoing clinical or nonclinical drug development research in areas including oncology, immunology, ophthalmology, and virology. Specific topics range from problems in genomics and, more generally, translational research to late-stage clinical trials and post-marketing evaluations. At the end of the internship, each student gives a department-wide presentation on his or her research topic. It is not uncommon for an intern to summarize their work in a peer-reviewed publication.

Applicants must be at least 18 years old and a current graduate student pursuing a PhD in statistics, biostatistics, or related field who has completed at least one year of graduate work by May 2015 and who will be returning to school in the fall of 2015. The applicant must be legally authorized to work in the United States. In addition, applicants should have good working knowledge of R, S-Plus, or SAS and have good communication skills.

For more information about Genentech, see www.gene.com.

Contact: Please send CV, personal statement of interest, and a letter of recommendation to gnebiostatsummerintern@gene.com

GlaxoSmithKline

King of Prussia, Pennsylvania

Number of Positions: 2

Type of Student: Graduate students

Deadline for Applying: March 31, 2015

Statistical Sciences North America (SSNA) within the quantitative sciences division of GSK is an internal consulting group. As part of the statistical platforms and technologies department, SSNA provides statistical consulting support to all areas of nonclinical research and development.

The co-op student will work under the supervision of the statisticians in SSNA and have the opportunity to do the following:

- Advise on design, sample size, and other aspects of statistical relevance in the planning of studies
- Provide statistical analysis, reporting, and interpretation of results of studies

- Provide statistical analysis programs for use either within statistical sciences or by other R&D staff

The position will be posted online and managed by ZeroChaos in late March 2015. To apply, visit www.zerochaos.com/GSK.

Institute for Defense Analyses

Alexandria, Virginia

Number of Positions: Up to 5

Type of Student: PhD student with at least 2–3 years of graduate school completed

Deadline for Applying: February 2, 2015

The Institute for Defense Analyses (IDA) is seeking applicants with statistical expertise for summer associate positions. The IDA Summer Associate Program provides statisticians a unique opportunity to use their quantitative and analytic skills to work on challenging real-world national security issues. Positions are available with a variety of focuses. Projects from past years have included designing and analyzing tests for military systems, using Bayesian methodology to leverage all information across a continuum of testing, and statistics in science policy. More information can be found at www.ida.org/CareersAtIDA/ExploreIDACareers.aspx.

U.S. citizenship is required.

Contact: Matthew Avery, maver@ida.org; (703) 845-6901

JPSM

University of Maryland, College Park, and various DC federal agencies

Number of Positions: 20–25

Type of Student: Undergraduate

Deadline for Applying: December 31, 2014, 5 p.m. EST
Junior fellows will be placed at one of the federal statistical agencies and expected to work 40 hours a week (May 26, 2015 to July 31, 2015) on tasks associated with the development, deployment, and analysis of surveys. Each fellowship is unique and tasks could include cognitive interviewing, data cleaning, interviewer training, imputation, and data analysis. We attempt to match junior fellows with positions based on interest and experience.

In addition to working, junior fellows will attend weekly seminars covering a variety of aspects of survey methodology and visit other federal statistical agencies to broaden their understanding of and exposure to the federal statistical system.

Finally, you'll meet graduate faculty of the Joint Program in Survey Methodology (JPSM) and technical leaders in the industry who will answer questions you may have about advanced education and career paths.

To be eligible for consideration, applicants must meet the following requirements:

- Have completed your sophomore or junior year as of May (or the end of the last term of the academic year)
- Have achieved a GPA of at least 3.5 on a 4.0 system
- Be a U.S. citizen
- Have completed all parts of the online application, including the application form, personal statement, submission of transcripts (unofficial is okay), and submission of two letters of recommendation

Contact: Kendra Nguyen, University of Maryland, College Park, Joint Program in Survey Methodology, 1218 LeFrak Hall, College Park, MD 20742; (301) 314-7911; (301) 314-7912 (fax); jpsmjuniorfellows@umd.edu

Liberty Mutual Insurance

Boston, Massachusetts; Seattle, Washington

Number of Positions: 20

Type of Student: PhD candidates in mathematics, statistics, economics, operations research, or a related field. Completion of doctoral prequalifying exams is preferred.

Deadline for Applying: None

As an advanced analytics intern, you will have the opportunity to apply your academic knowledge and test your skills while working on a variety of real-world business assignments. You will learn about products from multiple lines of business while working in disciplines such as product management research, claim research, distribution research, and marketing research. You will use your quantitative skills to analyze and summarize data, formulate findings, and provide recommendations. Using statistical software such as SAS and R, you will answer business problems and manipulate data, as well as assist others with conducting business research in a hands-on environment. Each intern also will give a presentation on their work to colleagues and the management team at the conclusion of the summer.

Competitive candidates will demonstrate proven statistical/mathematical and analytical skills as acquired through the pursuit of a PhD degree and a record of academic achievement with a minimum 3.0 cumulative GPA. Solid oral/written communication skills and the ability to work in a team environment and independently are desired. Proficiency in MS Office, Excel, SAS, and a statistical software package are preferred. Programming skills are desirable.

A housing subsidy is available for eligible candidates.

Contact: Liberty Mutual Advanced Analytics, 175 Berkeley St., Boston MA, 02116; (617) 357-9500; (617) 574-5709 (fax); LMAdvancedAnalytics@libertymutual.com

The Lubrizol Corporation

Wickliffe, Ohio

Number of Positions: 1–2

Type of Student: MS, PhD student

Deadline for Applying: February 2, 2015

The R&D statistical sciences department consults with chemists, formulators, and engineers on problems of product and process development, along with general problem solving. Specific activities include building predictive models, designing and analyzing experiments, performing general data analyses, and teaching courses. A major activity within the group is the development and deployment of a global formulation prediction system known as Q.LIFE.

Whereas the actual duties depend on the skills of the intern and current needs of the department, possible areas of involvement include performing data manipulation and analysis; assisting members of the department with consulting tasks, method assessment, and development; and programming statistical algorithms.

Contact: To apply for a three-month summer internship, please go to the www.lubrizol.jobs and search for the statistician intern position.

Mayo Clinic

Rochester, Minnesota

Number of Positions: 8–10

Type of Student: Undergraduate, graduate, PhD

Deadline for Applying: January 9, 2015

The Mayo Clinic Division of Biomedical Statistics and Informatics has summer internship opportunities for undergraduate students who have completed their junior year and graduate students at all levels. Internships of 6–9 months also may be offered. Interns will work with statisticians, bioinformaticists, and clinical investigators on research projects in areas such as clinical trials, statistical genetics, and bioinformatics. Experience with SAS and/or R is preferred. Whether an individual applicant will be offered a position will depend on their qualifications, our need and available funding, and the number of applicants.

To apply, submit an unofficial transcript, résumé, and cover letter at <http://mayocl.in/1qex3AX> Search by keyword “Biostat” (statistical internship) or “Intern-IS” (informatics internship). For more information, visit <http://mayoresearch.mayo.edu/mayo/research/biostat>. To learn more about the Mayo Clinic, visit www.mayoclinic.org.

Contact: Dawn Swiers, Department of Human Resources, Mayo Clinic, 200 First St. SW, Rochester, MN 55905; (507) 284-5048; (507) 284-1445 (fax); Swiers.dawn@mayo.edu

Merck Research Laboratories

Suburban Philadelphia, Pennsylvania; Rahway, New Jersey; Kenilworth, New Jersey

Number of Positions: 7

Type of Student: Graduate

Deadline for Applying: Rolling deadline

Merck is a global health care leader with a diversified portfolio of prescription medicines, vaccines, and animal health products. Today, we are building a new kind of health care company—one that is ready to help create a healthier future for all of us.

The biostatistics and research decision sciences (BARDS) department has approximately 7 internships (~ 9–12 weeks) in preclinical biostatistics and clinical biostatistics for full-time students pursuing an MS or PhD in statistics or biostatistics. In these internships, you will work closely with an experienced pharmaceutical industry statistician to perform statistical analysis of data from and/or statistical research related to basic drug research, clinical pharmacology, drug and vaccine development, or pharmacogenomics.

Candidates must:

- Have completed at least two semesters of graduate work toward an MS or PhD in statistics or biostatistics by May 30, 2015
- Be available for 9–12 weeks, beginning in June 2015
- Be returning to school in fall 2015
- Have effective oral and written communication skills
- Have a good working knowledge of SAS, S-Plus, and/or R

To be considered, visit www.merck.com/careers to create a profile and submit your résumé to job #ADM006412. Résumés will not be accepted via email.

Merck is an EOE, M/F/D/V, proudly embracing diversity in all of its manifestations.

Monsanto Company

St. Louis, Missouri

Number of Positions: 1

Type of Student: MS or PhD

Deadline for Applying: February 1, 2015

The successful intern candidate will become part of a fast-moving, multi-disciplinary team. They will assist by using their statistical talents to study and solve real-world problems. Work activity will include conducting independent research, meeting with scientists, fitting statistical models and conducting simulations for both type-1 and type-2 error rates in SAS, report preparation, and communication of results to the regulatory organization. In

addition to specific statistics-related work activities, the intern will gain knowledge of agricultural studies used in risk assessments of new biotechnology-derived crops.

This position requires at least one year of graduate work in statistics or biostatistics. The ideal candidate will have an interest in applications of modern biotechnology to sustainable agriculture. Excellent written and oral communication and interpersonal skills are essential.

The following are required:

- Current MS or PhD student pursuing a degree in statistics or biostatistics
- Familiarity with several of the following areas: statistical models for categorical response data, mixed models using SAS MIXED or GLMMIX, repeated measures, nonparametric methods, and spatial statistics
- Willingness/ability to relocate for the summer
- Detail and results-orientation with the ability to work in a team-based environment
- Demonstrated organizational and problem-solving skills

To apply, visit <http://monsanto.info/1EVtfaH>

Contact: Tim Perez, tim.perez@monsanto.com

National Agricultural Statistics Service

Fairfax, Virginia; Washington, DC

Number of Positions: Multiple

Type of Student: Graduate student (PhD preferred)

Deadline for Applying: March 1, 2015, but offers may be made earlier

NASS is one of two statistical agencies in the U.S. Department of Agriculture and is the primary survey/data-collection agency. The agency designs and conducts a variety of surveys. Survey results are combined with other data, such as that from remote sensing and administrative records, to provide forecasts and estimates of agricultural activity. NASS produces six of the principal federal economic indicators, and its estimates provide basic supply information for the commodity markets. Intern positions are in its research and development division, which continually improves and enhances the methods underpinning the agency's estimates and forecasts, and the methodology division, which implements state-of-the-art designs in sampling, questionnaire design, and estimation for survey operations.

Preference will be given to candidates having an interest in a future career with NASS. Applicants must be U.S. citizens. The agency is interested in hiring mathematical statisticians, statistical programmers, survey methodologists, and geospatial analysts for positions in research and operational environments.

Contact: Linda Young, USDA, National Agricultural Statistics Service, 1400 Independence Ave. SW, Washington, DC 20250; (202) 690-1401; (202) 690-2691 (fax); linda.young@nass.usda.gov

National Cancer Institute

Rockville, Maryland

Number of Positions: 2

Type of Student: Flexible

Deadline for Applying: Three months before you want to start

Clinical trials methodological research, specifically helping to prepare manuscripts (for publication) focusing on the design and analysis of clinical trials.

This is an unpaid internship. To compensate, we try to make the experience as educational and rewarding as possible. There is no clerical work. Rather, the intern engages in high-level research in important areas.

Contact: Vance Berger, (240) 276-7142; vb78c@nih.gov

Novartis Oncology, Biometrics and Data Management

Cambridge, Massachusetts; East Hanover, New Jersey

Number of Positions: Up to 6

Type of Student: Graduate

Deadline for Applying: February 13, 2015

The internship program is approximately 12 weeks (May to August, dates flexible). Interns will work with senior-level statisticians and focus on statistical research in both early clinical development using biomarkers and full clinical development in oncology. Topics include survival analysis (including joint modeling with copula), Bayesian methods, PK/PD, nonparametric statistics, longitudinal data, health-related quality of life, missing data, adaptive designs, modeling, and simulation.

Candidates must be graduate students within an MS or PhD program in biostatistics, statistics, or a related degree with at least 1.5 years of graduate work and have a working knowledge of SAS, including SAS/GRAPH. A working knowledge of R is helpful; some projects require a strong background in R and WinBUGS. Candidates should have good verbal and written communication skills.

Contact: Linda Finelli, 1 Health Plaza, E. Hanover, NJ 07936; (862) 778-7404; (973) 781 3182 (fax); BDMOncology.summerinternship@novartis.com

Office of Biostatistics, CDER, FDA

Silver Spring, Maryland

Number of Positions: 10–12

Type of Student: Advanced PhD students

Deadline for Applying: March 31, 2015

The Office of Biostatistics (OB), CDER, FDA plans to hire 10–12 advanced PhD graduate students in

biostatistics/statistics as interns from June through August 2015 to work on research projects on topics relevant to OB science needs (e.g., modeling and simulation, missing data, noninferiority trials, multiple endpoints, adaptive designs, meta-analysis, benefit-risk analysis, subgroup analysis, biosimilar, and data-mining) involving the development of statistical methods, software tools, and new drug application databases for the analyses of pre-clinical and clinical (pre- and post-market) data. Interns will gain hands-on experience on regulatory research projects under expert OB mentors.

Preference will be given to senior doctoral candidates with a strong background in statistical methods and good computational and programming skills.

Contact: Send CV and cover letter to Ram Tiwari, Associate Director, OB/CDER/FDA, at ram.tiwari@fda.hhs.gov; (301)-796-4084

Pew Research Center

Washington, DC

Number of Positions: 5

Type of Student: Graduate, PhD

Deadline for Applying: March 27, 2015

The Pew Research Summer Internship in Advanced Analytics is for graduate students interested in investigating the ways newly available Big Data sources and methodologies could contribute to ongoing research in our key areas: politics, religion, journalism, science and technology, Hispanics, social trends, and global attitudes. Interns will work on particular Pew Research Center projects and assist senior staff in identifying new sources of data and methods of analysis.

The program is designed for students who are enrolled in a doctoral or master's program and have completed at least one year of graduate work. Interns will work at Pew Research Center full time for 12 weeks. Each intern will be assigned to a research area and mentored by a senior research staff member. The assignment of the intern will be based on the needs of the research team and the educational background, skills, and experiences of the intern.

The strongest candidates will have skills in machine learning, data architecture, data visualization, advanced computational solutions, text mining, web search, analyzing large and complex data sets, and geographic analysis and GIS.

The position pays \$20/hour and is subject to the employment policies of the Pew Research Center, including a confidentiality agreement.

Contact: Applicants should send complete applications to careers@pewresearch.org or Human Resources Department, Pew Research Center, 1615 L Street, NW, Suite 700, Washington, DC 20036; (202) 419-4331

Pfizer Inc.

La Jolla, California; Groton, Connecticut; Collegeville, Pennsylvania; Cambridge, Massachusetts; New York, New York; Andover, Massachusetts; Pearl River, New York

Number of Positions: 15

Type of Student: Graduate student in statistics, biostatistics, or related field

Deadline for Applying: February 27, 2015

At Pfizer, there are more than 200 statisticians working on all phases of drug development—from discovery, development, and manufacturing to commercialization. Pfizer is recognized as an industry leader in the use of modeling and simulation to drive drug development. Statisticians are members of the 'clinical triad,' where each of the statistical, clinical, and clinical pharmacology disciplines bring their respective skills to bear in a collaborative manner to deliver the very best trial designs and analyses.

The internship will consist of up to 480 hours of work at one of the Pfizer sites in New York, California, Connecticut, Massachusetts, or Pennsylvania, commencing as early as April and ending as late as December. The intern's project will be biopharmaceutically oriented, with one-on-one supervision by a senior staff statistician. The work will be a hands-on learning experience focusing on current project needs and will likely involve use of SAS, R, or other statistical software. As part of the internship program, the intern will prepare a written report and brief presentation summarizing the work and forming a permanent record of the intern's efforts.

Contact: Liqiang Yang, Director, Pfizer Inc., 10777 Science Center Drive, CB10-2332, San Diego, CA 92121; (858) 678-8276 (fax); liqiang.yang@pfizer.com

Pratt & Whitney Aerospace

East Hartford, Connecticut

Number of Positions: 1

Type of Student: Undergraduate to post-grad

Deadline for Applying: March 1, 2015

Internships at Pratt and Whitney focus on teaching a statistically trained intern how to adapt to a nonstatistical working environment (an engineering-focused organization). Interns are taught how to bring their insights and skills in statistics into that environment by leading, guiding, and teaching engineers and manufacturers how statistical tools can efficiently solve problems and improve engineering designs.

Depending on the level of education the intern has, the scope of work will change to suit their background knowledge level. Interns will work with a member

of the statistics group on one or more simultaneous projects to investigate, clean, and validate and analyze data or to construct experimental designs or assist in investigating the root cause of an issue delivered by an engineering or manufacturing customer. Interns will communicate with the customer via face-to-face meetings and learn to construct reports in Microsoft Word or PowerPoint that clearly explain and illustrate the results of the intern's work to the customer.

Learning to communicate with customers with limited or no statistical background is a key skill in which the intern will be coached. Some research work or software testing/benchmarking also may be involved to help the statistics group identify strengths and weaknesses in both current and new statistical software packages. Interns are compensated for their time.

Preferably, candidates will be U.S. citizens or hold a green card, though this is not necessary.

Contact: Patty Cosentino, Manager, System Product Assurance, (860) 565-4785; (860) 998-9855 (fax); Patricia.Cosentino@pw.utc.com

PROS, Inc.

Houston, Texas

Number of Positions: 1

Type of Student: MSc or PhD

Deadline for Applying: March 1, 2015

Interns work with other scientists and PROS customers to research new methodologies and determine models for implementation. Projects could include analysis, review and research of time series forecasting, model selection, parameter estimation, and segmentation.

Interns are compensated and must be willing to live in Houston for the summer.

Contact: Rodney Nathan, Manager, (713) 335-5884; (713) 335-8144 (fax); rnathan@pros.com

RAND Corporation

Santa Monica, California; Washington, DC; Pittsburgh, Pennsylvania; Boston, Massachusetts

Number of Positions: Multiple

Type of Student: Graduate students who have completed at least two years of graduate work leading to a doctorate

Deadline for Applying: January 5, 2015

RAND's Summer Associate Program introduces outstanding graduate students to RAND, an institution that conducts research on a wide range of national security problems and domestic and international social policy issues. The program runs in the summer months full time for a 12-week period. All associates are collocated with project mentors.

RAND is interested in students who are currently enrolled in a PhD program in statistics, biostatistics, or applied statistics. Candidates should have strong theoretical training and empirical skills,

including experimental design, sampling, and modeling. Experience with causal inference, multilevel modeling, social network analysis, spatial statistics, and survey methods also are desired. Programming skills in R, SAS, Stata, or WinBUGS are useful.

A position description and details are available at www.rand.org/jobs/id3862. The program and application details are available at www.rand.org/about/edu_op/fellowships/gsap.html. Applications are only accepted online.

Contact: Summer_Director@rand.org

SAS Institute Inc.

Cary, North Carolina

Number of Positions: 2

Type of Student: PhD students studying in the United States with at least two years of graduate work completed by the end of spring semester 2015

Deadline for Applying: January 23, 2015

The statistical software development division at SAS is pleased to announce the SAS Summer Fellowship in Statistics. Open to doctoral candidates in statistics, biostatistics, and related graduate departments in the United States, this fellowship offers the opportunity to work closely with professional statisticians who develop software used throughout the world. The statistical fellow will contribute to research, numerical validation and testing, and documentation. The program provides an excellent opportunity to explore software development as a career choice.

Eligible candidates must have completed at least two years of graduate work by the end of the spring semester of 2015 and have demonstrated experience in statistical computing beyond the routine classroom use of statistical packages.

We are particularly interested in candidates with research experience in computational aspects of one of the following areas: Bayesian modeling, causal inference methods, finite mixture model, generalized additive models, joint modeling, missing data methods, nonlinear mixed models, imputation techniques for survey sampling, structural equations modeling, survival analysis, or high-performance predictive analytics.

The program provides a salary and stipend for a 12-week internship at SAS headquarters in Cary, North Carolina, during the summer of 2015.

You may apply to and view all SAS fellowship opportunities at <http://tinyurl.com/SASFellows>. The SAS Statistical Fellowship is requisition #20004961. In addition, you must ensure that two faculty members from your graduate program send a letter of recommendation via PDF to SASFellows@sas.com by January 23, 2015.

Contact: SASFellows@sas.com

Social and Decision Analytics Laboratory, Virginia Bioinformatics Institute at Virginia Tech

Arlington, Virginia

Number of Positions: 3+

Type of Student: Undergraduate, graduate, PhD

Deadline for Applying: March 15, 2015

The Social and Decision Analytics Laboratory (SDAL) develops premier statistical and data science capability for the ambitious Virginia Bioinformatics initiative of “Information Biology”—the study of massively interacting systems ranging from molecular to social phenomena. SDAL brings together a wide range of specialties across statistical and social sciences in a team science environment to study social issues that affect integrated human habitat, health, and well-being.

SDAL provides research opportunities for undergraduate and graduate students (master’s and PhD level) in statistics and social sciences. SDAL researchers will work on transdisciplinary teams.

To be considered for a 2015 summer internship appointment, send a résumé, cover letter stating why this internship is of interest to you, and two reference letters to Stephanie Shipp at steph19@vt.edu.

Contact: Stephanie Shipp, Deputy Director and Research Professor, Social and Decision Analytics Laboratory (SDAL), Virginia Bioinformatics Institute, Virginia Tech, National Capital Region, 900 North Glebe Road, Arlington, VA 22203; (571) 858-3123; (571) 858-3015 (fax); steph19@vbi.vt.edu

StataCorp LP

College Station, Texas

Number of Positions: 1

Type of Student: Graduate student in biostatistics or a closely related field

Deadline for Applying: February 15, 2015

StataCorp’s biostatistical department is seeking a statistical intern. Interns work with a senior member of Stata’s development team on projects in areas including survival analysis, statistical genetics, and clinical trials.

StataCorp’s summer internships offer the opportunity for students to learn the inner workings of statistical software development by working closely with StataCorp’s professional staff at their campus in College Station, Texas. Job duties may include learning how to use and program in Stata; collaborating on projects suitable for publication in the *Stata Journal*; answering technical questions from Stata users via email; creating support materials; and assisting in adding new features to Stata in the area of biostatistics, along with testing and documenting those features.

Candidates must be enrolled in a graduate program in biostatistics or a related quantitative field,

have good technical writing skills, and be able to communicate in English effectively. A strong mathematical background and experience programming in Stata, other statistical languages, C/C++, and Java are desirable.

Visit www.stata.com/internships to apply.

StataCorp LP is an Affirmative Action Employer—M/F/Vet/Disab.

StataCorp LP

College Station, Texas

Number of Positions: 1

Type of Student: Graduate student in economics, econometrics, finance, or a closely related field

Deadline for Applying: February 15, 2015

StataCorp’s econometrics department is seeking a statistical intern. Interns work with a senior member of Stata’s development team on projects in areas including panel-data analysis, time-series analysis, and causal inference.

StataCorp’s summer internships offer the opportunity for students to learn the inner workings of statistical software development by working closely with StataCorp’s professional staff at their campus in College Station, TX. Job duties may include learning how to use and program in Stata; collaborating on projects suitable for publication in the *Stata Journal*; answering technical questions from Stata users via email; creating support materials; and assisting in adding new features to Stata in the areas of econometrics and finance, along with testing and documenting those features.

Candidates must be enrolled in a graduate program in economics, econometrics, finance, or a related quantitative field; have good technical writing skills; and be able to effectively communicate in English. A strong mathematical background and experience programming in Stata, other statistical languages, C/C++, and Java are desirable.

Visit www.stata.com/internships to apply.

StataCorp LP is an Affirmative Action Employer—M/F/Vet/Disab.

StataCorp LP

College Station, Texas

Number of Positions: 1

Type of Student: Graduate student in statistics or a closely related field

Deadline for Applying: February 15, 2015

StataCorp’s statistical department is seeking a statistical intern. Interns work with a senior member of Stata’s development team on projects in areas including maximum likelihood estimation, multiple imputation, power and sample-size analysis, and non-parametric statistics.

StataCorp’s summer internships offer students the opportunity to learn the inner workings of

statistical software development by working closely with StataCorp's professional staff at their campus in College Station, Texas. Job duties may include learning how to use and program in Stata; collaborating on projects suitable for publication in the *Stata Journal*; answering technical questions from Stata users via email; creating support materials; and assisting in adding new statistical features to Stata, along with testing and documenting those features.

Candidates must be enrolled in a graduate program in statistics or a related quantitative field, have good technical writing skills, and be able to communicate in English effectively. A strong mathematical background and experience programming in Stata, other statistical languages, C/C++, and Java are desirable.

Visit www.stata.com/internships to apply.

StataCorp LP is an Affirmative Action Employer—M/F/Vet/Disab.

Summer Institute for Training in Biostatistics (SIBS)

Boston, Massachusetts; New York, New York; Atlanta, Georgia; Iowa City, Iowa; Raleigh/Durham, North Carolina; Minneapolis, Minnesota; Pittsburgh, Pennsylvania; Madison, Wisconsin

Number of Positions: Up to 25 at each site

Type of Student: Undergraduates majoring in mathematics, statistics, biology, or other science who have an interest in quantitative methods. Those who already have a baccalaureate degree are eligible to apply, but priority will be given to undergraduates at the time of application. U.S. citizenship or permanent resident status is required.

Deadline for Applying: March 6, 2015, or as specified by individual sites

The Summer Institute for Training in Biostatistics (SIBS), supported by grants from the National Heart, Lung, and Blood Institute (NHLBI) and National Center for Advancing Translational Sciences (NCATS), provides a comprehensive 6-7-week program designed to expose undergraduate students to the opportunities offered by a career in biostatistics and encourage them to pursue graduate study in the field.

Although each program will be different, all will focus on providing participants with an intensive introduction to biostatistical principles and methodologies and the essential role of biostatistics in health sciences research. Participants will enjoy instruction and lectures by recognized experts in the field; meet practicing biostatisticians, epidemiologists, and statistical geneticists; and gain real-world experience working with data from internationally recognized studies. The program covers tuition, housing, meals, and extracurricular activities. Also, participants will earn college credit that can be transferred back to their home institutions.

Applications should be made to each program separately; there is no restriction on to how many programs a student may apply.

Information about each program is available at the following websites:

NHLBI SIBS website: www.nhlbi.nih.gov/funding/training/redbook/sibsweb.htm

Boston University: <http://sph.bu.edu/sibs>

Columbia University: www.mailman.columbia.edu/academic-departments/biostatistics/csibs-program

Emory University: www.sph.emory.edu/cms/departments_centers/bios/bios_training/sibs.html

North Carolina State University/Duke Clinical Research Institute: www.stat.ncsu.edu/sibs

University of Iowa: www.public-health.uiowa.edu/isib

University of Minnesota: www.sph.umn.edu/programs/sibs

University of Pittsburgh: www.publichealth.pitt.edu/biostatistics/research-and-practice/sibs

University of Wisconsin at Madison: www.biostat.wisc.edu/content/summer-institute-training-biostatistics-sibs

Undergraduate Research Program in Statistical Genetics

Sioux Center, Iowa

Number of Positions: 5–6

Type of Student: Undergraduate

Deadline for Applying: January 31, 2015, but offers may be made earlier

Undergraduate students with an interest in statistical genetics and biostatistics are encouraged to apply to participate in the 10th consecutive year of our nationally recognized undergraduate research program in statistical genetics. Successful applicants will work with a team of undergraduate students on cutting-edge problems in statistical genetics leading to publication in peer-reviewed journals and presentations at regional and national conferences. Visit www.dordt.edu/statgen for more information, a link to this year's project descriptions, and an application.

Participants will receive a \$4,000 stipend for the 8-week program, which runs from June 1 to July 24. Free apartment-style housing and funds for travel to/from Dordt College will be provided. Applicants must be U.S. citizens. Hiring may take place prior to the deadline, so applicants are encouraged to submit their application materials as soon as possible.

Contact: Nathan Tintle, Department of Mathematics, Statistics and Computer Science, Dordt College, 498 4th Ave., NE, Sioux Center, IA 51250; (712) 722-6264; statgen@dordt.edu

U.S. Census Bureau

Suitland, Maryland

Number of Positions: Multiple

Type of Student: BS/BA/MS/MA/PhD

Deadline for Applying: Continuous

Interns may work on a variety of applications, including survey design and analysis; evaluation of nonsampling errors; and coverage and measurement error and analysis, Big Data, and data visualization. These positions require excellent communication and interpersonal skills and knowledge in one or more of the following areas: sampling techniques, experimental design, times series analysis, regression analysis, linear models, exploratory data analysis, statistical inference, statistical analysis, statistical computing, and applied probability. U.S. citizenship is required.

To apply, visit USAJOBS.gov, announcement #WA1188416-JN.

Contact: Tasha Harris, Human Resources Division, (301) 763-4910; Tasha.L.Harris@census.gov

U.S. Department of State, Office of Opinion Research

Washington, DC

Number of Positions: Up to 4

Type of Student: Undergraduate, graduate, PhD

Deadline for Applying: Internships are available for the spring, summer, and fall; deadlines are available on the U.S. Department of State website

The Office of Opinion Research conducts polls in more than 100 countries and provides information about global public opinion to policymakers at the U.S. State Department and across the government. Interns will assist analysts in all aspects of this work, including questionnaire design; data quality checks; and analyzing, reporting, and briefing the data to policymakers.

A strong regional interest is preferable, as interns will be assigned based on this background to a regional division within the office. All applications must be submitted via USAJobs.gov, and applicants should clearly signal they are interested in interning with the Bureau of Intelligence and Research, Office of Opinion Research. Applicants must be able to receive a top-secret clearance.

Contact: Laura Silver, U.S. Department of State, Room 2911, 2250 C St., NW, Washington, DC 20520; (202)736-4316; silverlr@state.gov

University of Arkansas for Medical Sciences/ Arkansas Children's Hospital, Dept. of Pediatrics

Little Rock, Arkansas

Number of Positions: 1–2

Type of Student: Graduate

Deadline for Applying: January 30, 2015

Successful candidates will work under the supervision of faculty biostatisticians and gain practical work experience in applying statistical methods to data from clinical trials and/or research studies.

To be considered, candidates must be enrolled in a graduate program at an accredited institution leading to a master's or a PhD in statistics or biostatistics. Candidates must have had a minimum of two full semesters of graduate-level statistics courses or equivalent prior to starting their summer internship and must be returning to school in the fall of 2015. Candidates must have a strong statistical/methodological background, strong analytical skills, the ability to work under minimum supervision, ability to work in a team, and excellent communication skills. Previous research experience is highly valuable, but is not required. Experience with SAS/R/STAT is preferred.

Arkansas Children's Hospital (ACH) is one of the largest pediatric health care centers in the nation and the only facility in Arkansas dedicated exclusively to children. Whether an applicant will be offered a position will depend on ACH's need and funding, as well as the applicant's qualifications. To apply, send an undergraduate and graduate transcript (request for undergraduate transcripts may be waived for international students only), résumé, and cover letter to the contact below. For more information about the department of pediatrics, visit www.arpediatrics.org.

Contact: Amber Sharp, 1 Children's Way, Slot 512-43, Little Rock, AR 72202; (501) 364-6631; (501) 364-1431 (fax); achbiostat@uams.edu

Additional internships will be posted as received at www.amstat.org/education/internships.cfm.

Nominations Invited for Causality in Statistics Education Award

The Causality in Statistics Education Award is aimed at encouraging the teaching of basic causal inference in introductory statistics courses. Donated by Judea Pearl, the prize is motivated by the growing importance of introducing core elements of causal inference into undergraduate and lower-division graduate classes in statistics.

A gift from Microsoft Research will enable the prize to double in 2015, so there will be one \$10,000 prize or two \$5,000 prizes. For additional information, see www.amstat.org/education/causalityprize.

Nominations and questions should be sent to the ASA office at educinfo@amstat.org. The nomination deadline is February 15, 2015. ■

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

www.amstat.org/awards

February 1, 2015

Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society

Nominations: Pam Craven pamela@amstat.org
Questions: G. David Williamson dxw2@cdc.gov

February 1, 2015

ASA W. J. Dixon Award for Excellence in Statistical Consulting

Nominations: Pam Craven pamela@amstat.org
Questions: Michael H. Kutner mkutner@emory.edu

February 15, 2015

Causality in Statistics Education Award

Nominations and Questions: educinfo@amstat.org

February 15, 2015

ASA Samuel S. Wilks Memorial Medal

Nominations: Pam Craven pamela@amstat.org
Questions: Lynne Billard lynne@stat.uga.edu

February 15, 2015

ASA Waller Distinguished Teaching Career Award

Nominations: Pam Craven pamela@amstat.org
Questions: Bradley A. Hartlaub hartlaub@kenyon.edu

February 15, 2015

ASA Waller Education Award

Nominations: Pam Craven pamela@amstat.org
Questions: Bradley A. Hartlaub hartlaub@kenyon.edu

February 15, 2015

ASA W. J. Youden Award in Interlaboratory Testing

Nominations: Pam Craven pamela@amstat.org
Questions: Blaza Toman blaza.toman@nist.gov

February 20, 2015

ASA Statistics in the Physical and Engineering Sciences Award

Nominations and Questions: Philip J. Ramsey pjrstats@aol.com

February 23, 2015

ASA Gertrude M. Cox Scholarship

Applications: Pam Craven pamela@amstat.org
Questions: Eloise E. Kaizar ekaizar@stat.osu.edu

March 1, 2015

ASA Edward C. Bryant Scholarship

Applications: Pam Craven pamela@amstat.org
Questions: Tapabrata Maiti maiti@stt.msu.edu

March 1, 2015

ASA Excellence in Statistical Reporting Award

Nominations: Pam Craven pamela@amstat.org
Questions: Morteza Marzjarani mortkm2@yahoo.com

March 1, 2015

ASA Fellows Award

Nominations accepted online at www.amstat.org
Questions: Stephanie S. Shipp steph19@vbi.vt.edu

March 1, 2015

ASA Outstanding Statistical Application Award

Nominations: Pam Craven pamela@amstat.org
Questions: DuBois Bowman dubois.bowman@columbia.edu

March 15, 2015

ASA Founders Award

Nominations: Pam Craven pamela@amstat.org
Questions: Nathaniel Schenker natschenker@gmail.com

David Blackwell, an eminent statistician at the University of California, Berkeley who was the first black admitted to the National Academy of Sciences and an ASA Fellow before his death in 2010, has been named a 2014 National Medal of Science honoree posthumously. Established in 1959, it is the premier honor for American scientists and engineers. Conferred by the U.S. president, the medal has been awarded to nearly 500 pioneering individuals. Several ASA members—including John Tukey (1973), Calyampudi Radhakrishna (C.R.) Rao (2002), Bradley Efron (2007), and S.R. Srinivasa Varadhan (2011)—previously were honored.

For information, visit <http://1.usa.gov/1pwUajO>. ■

Stephen J. Blyth will be the next president and CEO of Harvard Management Company (HMC), which manages Harvard University's endowment and related financial assets. Blyth serves as HMC managing director and head of public markets and will assume his new position January 1, 2015. He was selected by the company's board of directors following a nationwide search. An alumnus of Cambridge University and Harvard, Blyth also has served in recent years as a professor in Harvard's Faculty of Arts and Sciences, teaching the statistics department's course on applied quantitative finance. Read more about Blyth at <http://bit.ly/1qeZmzj>. ■

In a single week, **Keith E. Muller** and his co-investigator, **Deborah H. Glueck**, received two grants from the National Institutes of Health.

Muller is a professor in the department of health outcomes and policy in the University of Florida College of Medicine.

Emory Bioinformatics Celebrates 50 Years



Former and current chairs of Emory University's Department of Bioinformatics enjoy the department's 50th anniversary celebration. From left: Michael Kutner (1986–1988, 1990–1991, 2002–2009); E.C. Hall (1970–1986); Lance Waller (2009–current); Donna Brogan (1992–1993); Michael Haber (1993–1994); Vicki Hertzberg (1994–2001); and Raymond Greenberg (1988–1990)

The Emory University Department of Bioinformatics celebrated its 50th anniversary in October with a special reunion on campus.

Malcolm Turner, from the Medical College of Virginia, was the first chair of what was the department of statistics and biometry. Outside the medical school, the department was known as statistics and located in the Uppergate House, known to be haunted. To learn more about the department, download a brief history at <http://bit.ly/1BfoG5c>.

Glueck is an associate professor of biostatistics and informatics in the University of Colorado Denver School of Public Health.

The grants provide funding to create educational materials for the design of multilevel and longitudinal research studies. Multilevel designs involve observations related to each other, creating clusters of data points, while longitudinal designs collect repeated data points over time. The designs give greater precision in analyzing how individuals and groups change over time. Both types of studies are crucial for biomedical scientists and researchers in a wide variety of related fields.

The first grant, which is from the National Library of Medicine and totals \$50,000 per year for three years, will allow Muller and Glueck to write a textbook about how to design multilevel and longitudinal studies effectively. The textbook will be titled *Power*

and Sample Size for Multilevel and Longitudinal Designs in Health Research.

The second grant, which is from the National Institute of General Medical Sciences, will facilitate the creation of a short course on multilevel and longitudinal health studies.

The textbook and course build upon Muller and Glueck's efforts to make effective study design more widely available to scientists. With key collaborator, software engineer, and biostatistician Sarah Kreidler, an assistant professor of radiology at the University of Colorado Denver School of Medicine, Muller and Glueck have built a free website and open source power and sample size software (samplesizeshop.org). The work has been funded by a current \$2.2 million grant from the National Institutes of Health.

"Better-designed studies will help scientists understand the origin of disease and choose safe

Second GlaxoSmithKline-Duke Workshop a Success



Shuyen Ho (GSK), Margaret Polinkovsky (GSK), Sara Hughes (GSK), Greg Campbell (FDA), Liz DeLong (Duke), Shein-Chung Chow (Duke), Xiaofei Wang (Duke)

More than 150 GlaxoSmithKline (GSK) employees and Duke faculty and students attended the second Joint GSK-Duke Workshop on Critical Statistical Issues for Drug Development, held at Duke in the Hock Plaza building—home of the Duke Department of Biostatistics and Bioinformatics—September 30.

The program led with a keynote address, “Innovation and Statistics in Clinical Trials,” by Greg Campbell, director of the Division of Biostatistics in Center for Devices and Radiological Health at the U.S. Food and Drug Administration. It was followed by six sessions that offered 18 presentations on Bayesian priors, genetics, benefit-risk, biomarker oncology trials, novel Bayesian approaches, and adaptive trials, in addition to a poster session and Q&A panel.

There were 11 posters from Duke and six from GSK presented at the workshop; four were awarded with prizes.

This year’s workshop solidified the relationship between GSK and Duke that began with last year’s workshop at GSK’s campus in Research Triangle Park. “Last year felt very much like a first date,” said Sara Hughes, vice president and head of clinical statistics at GSK. “This year, we have moved on to our second date, learning more about each other and what we do, engaging in meaty talks, and provoking new ideas.”

Liz DeLong, chair of the Duke Department of Biostatistics and Bioinformatics, praised the mutual exchange. “This day-long workshop provides an exciting opportunity for us to integrate and partner with those in industry and learn up-to-the-minute information such as we did this morning about the FDA in Greg Campbell’s keynote speech.”

and effective treatments, ultimately improving the health of Americans,” explained Muller, who is a fellow of the American Statistical Association.

To read more about this grant and Muller and Glueck, visit <http://bit.ly/1viY7kq>. ■

The National Institute of Statistical Sciences (NISS), a nonprofit organization that fosters high-impact cross-disciplinary and cross-sector research involving statistical

sciences, held a workshop for its affiliates and others on October 17 at the Bureau of Labor Statistics Conference Center in Washington, DC. More than 70 people attended the workshop, titled “Analyzing Complex Survey Data with Missing Item Values.”

The workshop focused on the current state of research and applications for work with incomplete data and imputation for complex designs, technology transfer, application context, and dominant features that affect feasibility

and statistical properties. Later in the day, the group discussed prospective joint work they could conduct.

Speakers included John Eltinge, Bureau of Labor Statistics; Phil Kott, RTI International; Rod Little, University of Michigan; Shu Yang, Harvard School of Public Health; Joe Schafer, U.S. Census Bureau; Kirk White, U.S. Census Bureau; Martha Stinson, U.S. Census Bureau; Tim Keller, USDA National Agricultural Research Service; Jerry Reiter, Duke University; Jae-kwang Kim, Iowa State University; and Paul Biemer, RTI International and The Odum Institute at The University of North Carolina. There also was a working session, “Challenging Problems with Incomplete Data and Imputation in Large-Scale Federal Surveys,” with Geoffrey Paulin of the U.S. Census Bureau.

Copies of all the presentations can be found at www.niss.org. ■

Donna Spiegelman, professor of epidemiologic methods at Harvard School of Public Health (HSPH), has received a Director’s Pioneer Award from the National Institutes of Health (NIH). One of 10 researchers honored, Spiegelman is believed to be the first epidemiologist and biostatistician, and the first faculty member from a school of public health, to receive the award.

The five-year \$500,000/year prize recognizes “individual scientists of exceptional creativity, who propose pioneering, and possibly transforming, approaches to major challenges in biomedical and behavioral research,” according to the NIH website. Recipients, along with other awardees in the NIH



Spiegelman

Photo Credit: Emily Cuccarese/
HSPH Photography

Common Fund High-Risk High-Reward program, will be honored at a symposium held December 15–17 at the NIH.

Spiegelman intends to use this opportunity to refocus her career on the development of new methods needed to advance the field of implementation science—an area of research that seeks to establish through rigorous quantitative methods which public health interventions directed at achieving the same goal are most effective in the real world. The work will be directed toward public health interventions arising in environmental health, nutrition and chronic disease, and HIV/AIDS. Mathematics, statistics, computer science, and epidemiologic methods all will be brought to bear. Empirical methods for cost-effectiveness analysis, design and analysis of stepped wedge studies, methods that combine group-level and individual-level data to optimize resources, and causal inference methods for impact evaluation when interventions affect social or environmental networks, but only some subset of the network receive the intervention, are all topics she will address in the coming years.

Throughout her career, Spiegelman has worked to develop biostatistical solutions to problems that arise in epidemiology. With more than 500 publications to her name,

she is the statistician for several long-running studies based at HSPH: Nurses' Health Study II, Health Professionals Follow-Up Study, and Harvard PEPFAR site in Dar es Salaam, Tanzania, in addition to a host of studies that have grown out of these efforts. On her HSPH website, Spiegelman shares free software that helps researchers implement non-standard methods useful in epidemiologic research.

“Winning this award is a tremendous honor,” said Spiegelman, who holds appointments in the school's departments of epidemiology, biostatistics, nutrition, and global health and population. “It demonstrates a great deal of confidence in the work I've accomplished so far and that what I'm proposing to do is really worth the investment by the NIH in this very competitive and contracting funding environment.” ■

John Stufken recently joined Arizona State University as the inaugural Charles Wexler Professor in Statistics in the school of mathematical and statistical sciences. Stufken will lead the plans to form a department of statistics within the school. That growth will start with hiring two new faculty positions this year and planning for five positions total over the first three years. The initial focus will be to substantially increase the quality and size of the school's doctoral statistics program.

Stufken is a fellow of the ASA and Institute of Mathematical Statistics and an elected member of the International Statistical Institute.

To read more about the university's expansion and Stufken, visit <https://asunews.asu.edu/20141002-stufken-named-wexler-professor>. ■

Obituaries

Leon F. Burmeister

Leon F. Burmeister from the University of Iowa passed away October 29.

Burmeister spent 42 years at The University of Iowa as an instructor in the former department of preventive medicine and environmental health and later as a professor of biostatistics and associate dean for research and academic affairs in the college of public health. His research included examining the epidemiology of cancer deaths in Iowa farmers, drinking water quality in rural Iowa, epidemiology of occupational health, biostatistical methods in clinical research, surveillance of respiratory illnesses and accidents in Iowa residents, pesticide use in Iowa farmers, and sample survey theory and methods. He was also highly regarded for his skills as a teacher and consultant.

Online condolences may be left for the family at www.lensingfuneral.com.

Kathryn M. Chaloner

Kathryn Chaloner, 60, recently passed away. She was a professor and head of the department of biostatistics at The University of Iowa.

After nearly 20 years on the faculty at the University of Minnesota, Chaloner moved to The University of Iowa in 2002 to become head of the department of biostatistics. She was an accomplished researcher, teacher, and mentor. She advanced the study of HIV/AIDS and Bayesian statistics while improving the faculty and student body at the university by advocating for the inclusion of under-represented groups. The University of Iowa gave her the Diversity Catalyst Award in “recognition of innovative and distinctive efforts to enhance diversity and inclusion.” She also received national recognition for her efforts.

At the 2014 Joint Statistical Meetings, Chaloner received the 2014 Elizabeth L. Scott Award.

Chaloner loved to travel with her family, especially to destinations offering the opportunity to experience unusual scenery and birds.

A memorial fund has been established in her honor through The University of Iowa Foundation to support under-represented minority students in the College of Public Health Department of Biostatistics. Contributions to this fund can be sent to Kathryn Chaloner Student Scholarship Fund, UI Foundation, P.O. Box 4550, Iowa City, IA 52244-4550.

Read more about Chaloner's life or share a memory at www.lensingfuneral.com/obituaries/obituary-listings?obId=344392#/obituaryInfo.

sectionnews

To view section news in its entirety, visit <http://magazine.amstat.org>.

Biometrics

Abstract submissions for contributed and topic-contributed papers will be accepted online until February 2, 2015. Those interested in organizing a topic-contributed session should notify the 2015 JSM Biometrics Section chair, Rebecca Hubbard (hubbard.r@ghc.org), and submit a proposal online by January 15, 2015. See www.amstat.org/meetings/jsm/2015/topiccontributed.cfm for instructions. ■

Statistics in Epidemiology

The Section on Statistics in Epidemiology (SIE) invites nominations for the Nathan Mantel Award for lifetime contributions to the development and application of statistical science to problems and issues in epidemiology. The award consists of \$1,000 and a plaque and will be presented at the 2015 Joint Statistical Meetings (JSM) in Seattle, Washington, in August.

The nominee should be a person widely known to have a strong established record in developing statistical methods for epidemiology. Consideration is not limited to candidates who are members of the section. To submit a nomination, send a CV and cover letter to Susan Shortreed, section secretary/treasurer, at shortreed.s@ghc.org by February 1, 2015. Questions about the award can be addressed to Babette Brumback, section chair, at brumback@ufl.edu. ■

Government Statistics

Nominations are sought for the 2015 Jeanne E. Griffith Mentoring Award. Established to encourage mentoring of junior staff in the statistical community in the federal, state, or local government, this recognition is awarded annually to a supervisor, technical director, team coordinator, or other member of federal, state, or local government statistical staff for his or her efforts in supporting the work and developing the careers of junior statisticians. The award will consist of \$1,000, a citation, and a plaque, which will be presented at a ceremony arranged by the co-sponsors in June 2015.

Nominations will be accepted beginning in January 2015 and should be prepared in the form of a letter or memorandum for the selection committee. The letter or memorandum should summarize the nominee's actions that support and encourage junior statisticians in the federal, state, or local statistical

community to develop their careers. Nominations are due April 3, 2015.

For information about the award, including the nominating process for the 2015 award, visit www.amstat.org/sections/govt or <http://bit.ly/1HbiO4Z>. Contact Rick Peterson at rick@amstat.org or Lillian Lin at lillian.lin@montana.edu with questions. ■

Quality and Productivity

The Quality and Productivity Section has a busy year ahead. Members are invited to present and attend the annual Fall Technical Conference and Quality and Productivity Research Conference. The section also seeks nominations for the Gerald J. Hahn Q&P Achievement Award and outgoing section chair, Di Michelson, shares the section's plans for a new social media coordinator.

The 59th annual Fall Technical Conference (FTC) will be held in The Westin Oaks Houston at the Galleria/Houston, Texas. The theme of the conference is "Statistics and Quality: Solving Problems Today and Tomorrow" and is intended to engage researchers and practitioners in a dialogue that leads to more effective use of statistics to improve quality. If you are interested in presenting an applied or expository paper at the conference—in any of three parallel sessions: statistics, quality control, or tutorial/case studies—visit <http://magazine.amstat.org/blog/category/membernews/amstatsections/quality-and-productivity>.

During the FTC, the Gerald J. Hahn Q&P Achievement Award will be presented to an individual who has demonstrated outstanding leadership in developing, promoting, and successfully improving the quality and productivity of products and organizational performance using statistical concepts and methods for 20 or more years. Nominations are due February 28, 2015. For information about the nomination process, visit <http://community.amstat.org/QP/ScholarshipsAwards/GeraldJHahnQPAchievementAward>. Questions about the award may be directed to J.D. Williams at jdwilliamsphdstat@gmail.com.

In addition to FTC, the section is sponsoring the Quality and Productivity Research Conference, which will take place June 9–12 in Raleigh, North Carolina. The goal of the conference is to stimulate interdisciplinary research among statisticians, scientists, and engineers in quality and productivity, industrial needs,

and the physical and engineering sciences. This year's theme is "Creativity and Innovation for a Connected World." Abstracts can be submitted to Michelson at di.michelson@sas.com by March 1, 2015.

For details about these conferences and to read what Michelson says about the new position on the executive committee—social media coordinator—visit <http://magazine.amstat.org/blog/category/membernews/amstatsections/quality-and-productivity>. ■

Physical and Engineering Sciences

A message from the 2014 chair of the Section on Physical and Engineering Sciences (SPES), Liz Schiferl, outlining the past year's activities can be found online at http://magazine.amstat.org/blog/2014/12/01/spes_12_14. Additionally, read about plans for the 2015 Spring Research Conference and Fall Technical Conference. ■

Teaching of Statistics in the Health Sciences

Contributed by Robert Oster, Section Publications Officer

Officers of the Teaching of Statistics in the Health Sciences (TSHS) Section recognize the following JSM TSHS award winners for 2014:

- Outstanding Teaching Award: **Bart Holland**, Rutgers University
- Best Contributed Paper Award: **Aimee Schwab**, University of Nebraska-Lincoln, for "Using a Virtual Island Population to Teach Statistics, Epidemiology, Clinical Trials, and More"

During 2015, the section will offer the Distinguished Achievement Award, Young Investigator Award, Outstanding Teaching Award, and Best Contributed Paper Award (at JSM 2015).

The Distinguished Achievement Award, presented every two years, recognizes a section member who has provided outstanding long-term service to the section and the ASA. A section member should submit a formal nomination letter that summarizes the nominee's contributions to the section and the ASA in general.

The Young Investigator Award, presented annually, recognizes an outstanding young investigator (i.e., a current graduate student or recent graduate who received his/her terminal degree no more than seven years ago and who is in a position with rank below associate professor and does not hold tenure or

its equivalent) who is the first author of an abstract submitted to the TSHS Section for JSM. Prior recipients of either this award or the section's Distinguished Achievement Award are ineligible.

The Outstanding Teaching Award, presented annually, recognizes an outstanding statistics educator and mentor in the health sciences. Consideration for this award requires a nomination letter summarizing the nominee's teaching/training and mentoring record in the health sciences, copy of the nominee's curriculum vitae (with emphasis on activities related to teaching/training and mentoring in the health sciences), statement of the nominee's philosophy of teaching, and three letters of reference submitted by colleagues of the nominee summarizing his/her teaching/training and mentoring accomplishments.

All nominations must be made with the nominee's consent; self-nominations are allowed. The deadline for receipt of nominations is March 6, 2015.

Details about these awards can be found at <http://community.amstat.org/TSHS/Home> or <http://magazine.amstat.org/blog/category/membernews/amstatsections>. ■

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California

■ Genentech is seeking a statistician for our nonclinical group. We provide statistical expertise to our global manufacturing organization. Our collaborations include statistical applications to bioprocess development, assay development, quality control, and manufacturing. The desired candidate will have a PhD in statistics or a master's in statistics and two years of applicable experience. Apply today! www.gene.com/careers/find-a-job/apply/00431870?src=JB-11480 EOE.

■ Assistant or Associate Professor of Medicine, Quantitative Sciences Unit, Department of Medicine, Stanford University School of Medicine. Applicants should have a PhD in biostatistics, statistics, or related field, and an outstanding record doing collaborative biostatistics, with an emphasis in applications that may include oncology, cardiovascular medicine, and public health, to name a few. Apply here: www.Click2Apply.net/sqfw6ng. EOE/AA.

■ Genentech is seeking a statistical scientist-nonclinical biostatistician for our South San Francisco headquarters. The incumbent will provide statistical expertise to nonclinical drug development activities, with a focus on technical operation including assay development, bioprocess development, quality control, and manufacturing. The desired candidate will have a master's or PhD in statistics or biostatistics with at 2-5 years experience least five years of experience www.gene.com/careers/find-a-job/apply/00431870?src=JB-11480 EOE.

■ Applications are invited for an assistant professor of statistics at the University of California, Riverside. The position targets candidates in one or more areas: bioinformatics, imaging analysis, large-scale data analysis, statistical methodology for clinical trials, Bayesian analysis, discrete data analysis, nonparametric or semiparametric statistics, longitudinal data analysis, or survival analysis. A PhD in statistics or biostatistics is required. For

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

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

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

Rates: \$320 for nonprofit organizations (with proof of nonprofit status), \$475 for all others. Member discounts are not given. For display and online advertising rates, go to www.amstat.org/ads.

Listings will be invoiced following publication. All payments should be made to the American Statistical Association. All material should be sent to *Amstat News*, 732 North Washington Street, Alexandria, VA 22314-1943; fax (703) 684-2036; email advertise@amstat.org.

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

Also, look for job ads on the ASA website at www.amstat.org/jobweb.

detailed information, go to <http://statistics.ucr.edu/employment.html>. The University of California is an Equal Opportunity/Affirmative Action/Disability/Veterans Employer. The University has family-friendly policies and is committed to accommodating the needs of dual-career couples.

Connecticut

■ The department of biostatistics in the school of public health at Yale University is seeking applicants at the rank of assistant professor. Recent graduates and applicants with experience in the development and application of statistical methodology in the following areas: image analysis, early phase clinical trials, Bayesian statistics, missing data, network analysis, and causal inference are encouraged to apply. <https://academicjobsonline.org/ajol/jobs/4494>. Yale University is an affirmative action/equal opportunity employer. Yale values diversity in its faculty, students, and staff and especially

Academia Sinica Institute of Statistical Science Research Positions

The Institute of Statistical Science, Academia Sinica, is seeking candidates for tenure-track or tenured research positions at the level of assistant or associate research fellow available in 2015. Candidates in all areas of Statistics will be considered. Candidates should have a PhD degree in statistics or areas related to data sciences. Application materials must include (1) a curriculum vitae, (2) three letters of recommendation, and (3) representative publications and/or technical reports. Additional supporting materials such as transcripts for new PhD degree recipients may also be included. Except for the letters of recommendation, electronic submissions are encouraged. Applications should be submitted to

Dr. Ching-Kang Ing
Chair of the Search Committee
Institute of Statistical Science, Academia Sinica
128 Sec. 2 Academia Road,
Taipei 11529, Taiwan, R.O.C.
Fax: +886-2-27831523
E-mail: cking@stat.sinica.edu.tw

Applications should be received by **December 31, 2014** for consideration.

For more information, please visit http://www.stat.sinica.edu.tw/statnewsite/?locale=en_US

encourages applications from women, persons with disabilities, protected veterans, and underrepresented minority scholars.

Iowa

■ The University of Iowa is seeking an assistant professor of statistics starting 8/19/15 as part of a university-wide informatics initiative. Research interests in computational statistics, algorithms, visualization, inference for digital images, machine learning, and other areas of statistical informatics are desirable. See <https://jobs.uiowa.edu/faculty/view/65201> for the complete position description and application information. Applicants also should arrange to have three letters emailed to stat-searchcommittee@list.uiowa.edu. EOE/AA.

Maine

■ The department of mathematics and statistics at the University of Maine is seeking to fill at least one tenure-track assistant professorship beginning September 2015. Applications are invited from statisticians in the following areas: Big Data statistics, interdisciplinary research and consulting in the applied, biological and social sciences; mathematical statistics. Candidates must possess a PhD by September 1, 2015. To view full details and to apply visit: <https://umaine.hiretouch.com/job-details?jobID=21407&job=assistant-professor-of-statistics>. The University of Maine is an EEO/AA employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, age, disability, protected veteran status, or any other characteristic protected by law.

Massachusetts

■ The department of quantitative health sciences at the University of Massachusetts Medical School is recruiting a tenured or tenure eligible faculty member at the associate professor or professor levels for the division of biostatistics and health services research. Applicant should have an established, nationally recognized research program.

ASSISTANT OR ASSOCIATE PROFESSOR--STATISTICS MATHEMATICAL SCIENCES BALL STATE UNIVERSITY MUNCIE, INDIANA

Tenure-track faculty position available August 21, 2015. Responsibilities: teach approximately 8 to 9 hours per semester, including statistics courses at both the undergraduate and graduate levels; scholarship in statistics; and professional service. **Minimum qualification:** doctorate in statistics by August 21, 2015. **Preferred qualifications:** interest and/or experience in big data analysis or probability theory though all areas of statistics will be considered.

An applicant's file is complete when all of the following have been received: (1) letter of application; (2) curriculum vitae; (3) research summary; (4) three letters of reference, at least one of which substantially addresses the candidate's teaching ability and performance; and (5) a copy of graduate transcripts to: Professor Rahmatullah Imon, Chair, Statistics Search Committee, Department of Mathematical Sciences, Ball State University, Muncie, IN 47306. (Tel: 765-285-8640; Fax: 765-285-1721; E-mail: rimon@bsu.edu) Review of applications will begin immediately and will continue until the position is filled. (www.bsu.edu/math)

The Department of Mathematical Sciences seeks to attract an active, culturally and academically diverse faculty of the highest caliber. Ball State University is an equal opportunity, affirmative action employer and is strongly and actively committed to diversity within its community.



The University of Vermont Assistant or Associate Professor

The Department of Mathematics and Statistics at the University of Vermont invites applicants for a tenure-track faculty position at the rank of assistant or associate professor in biostatistics. Expertise in one or more of the following areas is highly desirable: high-dimensional modeling, Bayesian analysis, modeling of failure time data, statistical data mining, and statistical genetics. Interest and experience in cross-disciplinary collaborations is also highly desirable as is postdoctoral experience. The successful candidate will be expected to develop an independent program of methodological research while cultivating collaborations with other investigators, as well as contribute to the educational mission of the university at the undergraduate and graduate levels.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer and actively encourages applications from women, veterans and people with diverse racial, ethnic, and cultural backgrounds.

For more information and to apply online, visit www.uvmjobs.com (search position no. 001055). Additional inquiries may be sent to Bernard F. Cole, search committee chair, at bfcole@uvm.edu.

Department of Statistics | Columbia University

Limited-term Faculty Position Starting Fall 2015

The Department of Statistics invites applications for a three-year term position at the rank of assistant professor to begin July 1, 2015. A PhD in statistics or a related field is required, as is a commitment to high quality research and teaching in statistics and/or probability. Candidates will be expected to sustain an active research and publication agenda and to teach in the departmental undergraduate and graduate programs.

The department currently consists of 25 faculty members, 40 PhD students, and over 200 MA students. The department has been expanding rapidly and, like the University itself, is an extraordinarily vibrant academic community. For further information about the department and our activities, centers, research areas, and curricular programs, please go to our web page at: www.stat.columbia.edu

All applications must be submitted through Columbia's online Recruitment of Academic Personnel System

(RAPS) and must include the following materials: cover letter, curriculum vitae, statement of teaching philosophy, research statement, evidence of teaching effectiveness, one writing sample or publication, and the names of 3 references into the system. Applicants also should arrange for three letters of recommendation to be uploaded on their behalf.

■ For more information and to apply, please go to: <https://academicjobs.columbia.edu/applicants/Central?quickFind=60011>

■ Inquiries may be made to dk@stat.columbia.edu

■ The application deadline is **April 20, 2015**.

Columbia University is an Equal Opportunity/Affirmative Action employer.

UCI University of California, Irvine

The Department of Statistics (www.stat.uci.edu) at the University of California, Irvine (UCI), invites applications for a tenure-track assistant professor position beginning July 1, 2015. The department has a strongly interdisciplinary flavor, focused on developing methods to solve applied problems and advancing the statistical theory that underlies those methods. Applicants must hold a Ph.D. degree in Statistics or a related field. The Department is interested in individuals with research interests in all areas of statistics, but the ability to handle large complex data sets is required. Particularly welcome are applications from individuals who would complement and expand upon our current strengths, which include Bayesian statistics, statistical machine learning, biostatistics, neurostatistics, astrostatistics, bioinformatics, statistical genetics and geostatistics.

One of the youngest University of California campuses, UC Irvine is ranked first in the United States and fifth in the world among universities less than 50 years old, according to The Times Higher Education survey.

Completed applications containing a cover letter, curriculum vita, graduate transcripts, statements on teaching and research, and three letters of recommendation should be uploaded electronically. In addition, a separate statement that addresses past and/or potential contributions to diversity, equity and inclusion should be included in the application materials. Please refer to the following web site for instructions <https://recruit.ap.uci.edu/apply/JPF02638>. The review of applications will begin December 15, 2014.

The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy.

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OPEN RANK POSITION IN BIOSTATISTICS

BIOSTATISTICS & RESEARCH
DESIGN UNIT
UNIVERSITY OF MISSOURI

The Biostatistics & Research Design Unit and Department of Health Management and Informatics in the School of Medicine (SOM) seeks to fill an open rank tenure-track faculty position starting Fall 2015, or possibly sooner. A PhD in Statistics or Biostatistics is required as well as a strong interest in collaborative research, and consulting in the health sciences. Teaching and consulting experience is highly valued. It is essential that the candidate have excellent communication skills and be prepared to assist in preparation of external grant proposals.

To apply for this position, please visit the MU web site at <http://hrs.missouri.edu/find-a-job/academic/>. For additional information about the position, please contact Christina Brown, SOM Office of Research at BrownChri@health.missouri.edu.



INFORMATICS FACULTY POSITIONS

The University of Iowa Department of Biostatistics invites applications as part of a university-wide Informatics Initiative. Applicants will be considered at the ranks Assistant, Associate, Full Professor, or fixed-term Associate appointment level. Individuals with expertise and research interests in statistical computing, graphics, visualization, inference from biomedical images, algorithms, data analytics, and machine learning are of particular interest.

For the complete position description and electronic application information visit <http://jobs.uiowa.edu/> (requisition #64879). Applications only accepted online. Applications received by November 1, 2014 will receive full consideration.

The University of Iowa is an AA/EOE.

Responsibilities include sustained excellence in independent research focused on methodological innovation, doctoral-level teaching and mentoring. Apply to: <https://academicjobsonline.org/ajol/jobs/4341>.

As an equal opportunity and affirmative action employer, UMMS recognizes the power of a diverse community and encourages applications from individuals with varied experiences, perspectives and backgrounds.

■ The University of Massachusetts Amherst seeks a tenure-track biostatistics faculty, assistant/associate professor rank. Minimum requirements: terminal degree (PhD, DrPH) and evidence of research and teaching potential. Apply through Interview Exchange at <http://umass.interviewexchange.com/jobofferdetails.jsp?JOBID=5376>; submitting curriculum vitae, description of research and teaching and three references. Application reviews will continue until the position is filled. Start date is September 1, 2015. EOE.

■ The department of mathematical sciences at Bentley University is seeking to fill a full-time, tenure-track assistant professor position. In exceptional circumstances, the dept. will consider applications from highly qualified associate/full professors. Candidates must have completed a doctoral degree in applied statistics or a related field prior to the start of employment. Applications should be submitted electronically at <https://jobs.bentley.edu/applicants/Central?quickFind=52530>. Bentley University is an Equal Opportunity Employer, building strength through diversity.

Michigan

■ Michigan State University invites applications for chairperson of the department of statistics and probability. Required doctoral degree in statistics or related field and internationally recognized and externally funded research program. Must exhibit communication and interpersonal skills. Candidates should be qualified to hold the rank of tenured professor. Review of applications began December 1. For detailed information, go to <https://jobs.msu.edu> (position #0044). EOE.

Department of Statistics | Columbia University

Lecturer in Discipline Position Starting Fall 2015

The Department of Statistics invites applications for multiple positions at the rank of Lecturer in Discipline to begin July 1, 2015. These are full-time appointments with multi-year renewals contingent on successful reviews. One of these positions is targeted to be the online instructor in the Department's burgeoning MA Hybrid Program.

Lecturers in Discipline are officers in the University who meet a programmatic need for instruction in specialized fields. The selected candidates will be expected to teach 3 courses per semester. A Ph.D. in statistics or a related field and a commitment to high quality teaching at both the undergraduate and MA levels in statistics and/or probability are required. Experience with online education is desirable but not required. Candidates will be expected to participate in the full gamut of statistics education including curriculum improvement, modifying and developing courses, and exploring new strategies for the teaching of statistics.

The department currently consists of 25 faculty members, 40 PhD students, and over 200 MA students. The department has been expanding rapidly and, like the University itself, is an

extraordinarily vibrant academic community. For further information about the department and our activities, centers, research areas, and curricular programs, please go to our web page at: www.stat.columbia.edu

All applications must be submitted through Columbia's online Recruitment of Academic Personnel System (RAPS) and must include the following materials: cover letter, curriculum vitae, statement of teaching philosophy, research statement, evidence of teaching effectiveness, one writing sample or publication, and the names of 3 references into the system. Applicants also should arrange for three letters of recommendation to be uploaded on their behalf.

■ For more information and to apply, please go to: <https://academicjobs.columbia.edu/applicants/Central?quickFind=60012>

■ Inquiries may be made to: dk@stat.columbia.edu
■ Review of applications begins on **January 15, 2015** and will continue until the positions are filled.

Columbia University is an Equal Opportunity/Affirmative Action employer.

■ The University of Michigan-Dearborn (www.umd.umich.edu/math) invites applications for one tenure-track assistant professor position in statistics beginning September 1, 2015. The position requires a Ph.D. in statistics, biostatistics, or related field. A cover letter, CV, three letters of recommendation, transcripts and statements on your teaching philosophy and research program should be submitted using MathJobs.org. The University of Michigan-Dearborn is an equal opportunity/affirmative action employer. The University of Michigan conducts background checks on all job candidates upon acceptance of a contingent offer and may use a third party administrator to conduct background checks. Background checks will be performed in compliance with the Fair Credit Reporting Act.

Nebraska

■ Tenure-track assistant professor (9-month), Department of Statistics, University of Nebraska-Lincoln, start

NC STATE UNIVERSITY

Forensic Statistician - Department of Statistics Tenure-Track Assistant/Associate Professor

The NC State Chancellor's Faculty Excellence Program and Department of Statistics at NC State University seeks to hire a tenure-track Assistant Professor to begin in August 2015. Exceptional candidates at the associate and full-professor levels will also be considered.

The Chancellor's Faculty Excellence Program is a cluster hire program that marks the first major initiative of the university's strategic plan, "The Pathway to the Future." NC State has hired more than 30 of the expected 40 faculty members across twelve research areas, or "clusters," to promote interdisciplinary scholarship and the development of innovative curricula in emerging areas of strategic strength. Explore the Chancellor's Faculty Excellence Program and the twelve clusters at: <http://ncsu.edu/workthatmatters>.

We seek individuals who are interested in developing teaching, along with basic and collaborative research programs in statistical theory and methods applicable to forensic science, with emphases in areas related to, and in support of, the university's Forensic Science Institute (FSI). The position is affiliated with the FSI and carries with it the expectation of teaching statistics to students in forensic science programs and participation in activities serving the needs of the forensic science community on campus.

The Department provides a dynamic environment for teaching, research and collaborations across disciplines. Inclusiveness and diversity are academic imperatives and thus are university goals. We are particularly interested in candidates who have experience working with students from diverse backgrounds and a demonstrated commitment to improving access to higher education for students from underrepresented groups. The Department's location in the Research Triangle provides rich opportunities for interactions with industry; other universities, including Duke University and the University of North Carolina at Chapel Hill; and government agencies. Faculty enjoy collaborations with medical researchers at Duke, environmental scientists at the EPA research facility, pharmaceutical researchers at Glaxo-SmithKline, and software developers at SAS Institute, among many others. The Department is also a founding cooperator of the National Institute of Statistical Sciences (NISS) and the NSF-funded Statistical and Applied Mathematical Sciences Institute (SAMSI), both located nearby in Research Triangle Park.

Of particular importance for this position is the opportunity and expectations for interactions with local law enforcement and government agencies (Raleigh/Wake City-County Bureau of Identification, and the North Carolina State Crime Laboratory) through presentations, consulting, training, and collaborations as a representative of the FSI, the Department of Statistics, and NC State.

All applicants must have a Ph.D. in Statistics, Biostatistics or relevant field by the time of employment. Comprehensive review of applications will begin December 1, 2014, and continue until the position is filled. Questions about the position may be directed to Len Stefanski (stefanski@ncsu.edu).

To apply: visit <http://jobs.ncsu.edu/postings/42463>

NCSU is an equal opportunity and affirmative action employer. In addition, NC State University welcomes all persons without regard to sexual orientation or genetic information. Persons with disabilities requiring accommodations in the application process please call (919) 515-3148.

Faculty Positions – School of Operations Research & Information Engineering (ORIE)

Cornell is a community of scholars, known for intellectual rigor and engaged in deep and broad research, teaching tomorrow's thought leaders to think otherwise, care for others, and create and disseminate knowledge with a public purpose.

Cornell University's School of Operations Research and Information Engineering (ORIE) seeks to fill multiple tenured/tenure-track faculty positions for its Ithaca campus. Applicants with research interests in all areas of operations research and information engineering will be considered, but applicants in areas aligned with the School's current strategic plan will receive primary consideration: the plan seeks to strengthen the School's leading role in advancing the analytical, methodological, and modeling tools of operations research together with the potential of "Big Data" and the information revolution.

Requisite is a strong interest in the broad mission of the School, exceptional potential for leadership in research and education, an ability and willingness to teach at all levels of the program, and a PhD in operations research, mathematics, statistics, or a related field by the start of the appointment. Salary will be appropriate to qualifications and engineering school norms.

Cornell ORIE is a diverse group of high-quality researchers and educators interested in probability, optimization, statistics, simulation, and a wide array of applications such as manufacturing, e-commerce, supply chains, scheduling, transportation systems, health care, financial engineering, service systems and network science. We value mathematical and technical depth and innovation, and experience with applications and practice. Ideal candidates will have correspondingly broad training and interests. Please apply online at <https://academicjobsonline.org/ajo/jobs/4552> with a cover letter, CV, statements of teaching and research interests, sample publications, at least three reference letters and, for junior applicants, a doctoral transcript. Applicants attending INFORMS annual meeting are strongly encouraged to submit all application materials by November 1, 2014. All applications completed by November 15, 2014 will receive full consideration, but candidates are urged to submit all required material as soon as possible. Applications will be accepted until the positions are filled.

ORIE and the College of Engineering at Cornell embrace diversity and seek candidates who can contribute to a welcoming climate for students of all races and genders. Cornell University seeks to meet the needs of dual career couples, has a Dual Career program, and is a member of the Upstate New York Higher Education Recruitment Consortium to assist with dual career searches. Visit <http://www.unyherc.org/home/> to see positions available in higher education in the upstate New York area.

Find us online at <http://hr.cornell.edu/jobs> or [Facebook.com/CornellCareers](https://www.facebook.com/CornellCareers)

Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students and staff impart an uncommon sense of larger purpose and contribute creative ideas to further the university's mission of teaching, discovery and engagement. Located in Ithaca, NY, Cornell's far-flung global presence includes the medical college's campuses on the Upper East Side of Manhattan and in Doha, Qatar, as well as the new CornellNYC Tech campus to be built on Roosevelt Island in the heart of New York City.



Diversity and inclusion have been and continue to be a part of our heritage. Cornell University is a recognized EEO/AA employer and educator.



Tenure-Track Associate Professor/Assistant Professor in the Department of Statistics and Actuarial Science (Ref.: 201400998)

Applications are invited for a tenure-track appointment as Associate Professor / Assistant Professor in the Department of Statistics and Actuarial Science, to commence on September 1, 2015 or as soon as possible thereafter. The post will initially be made on a three-year term. Appointment with tenure will be considered during the second three-year contract.

Applicants should possess a Ph.D. degree in Statistics or related disciplines such as Applied Probability and Statistics, Statistical Finance or Actuarial Science. Those with demonstrated research ability and teaching experience are preferred. The rank offered will depend on the candidate's years of experience, publications and on-going research. The appointee should be able to demonstrate excellence in research and scholarship; and evidence of leadership in curriculum and pedagogy development, and teaching effectiveness.

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

For enquiries about the existing research activities of the Department and the specific job requirements, please write to Professor W.K. Li, Head of the Department of Statistics and Actuarial Science (e-mail: hmtlwk@hku.hk). Applicants should send a completed application form, together with an up-to-date C.V., a detailed publication list, a research plan and a statement on teaching philosophy by e-mail to scaas@hku.hk. Please indicate clearly the reference number and which level they wish to be considered for in the subject of the e-mail. Application forms (341/1111) can be downloaded at <http://www.hku.hk/apptunit/form-ext.doc>. Further particulars can be obtained at <http://jobs.hku.hk/>. **Closes December 31, 2014.**

The University thanks applicants for their interest, but advises that only shortlisted applicants will be notified of the application result.

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

August 2015. See <http://employment.unl.edu> (requisition # F_140139) for complete application information. Submit letter of interest, CV, graduate transcript(s), research and teaching statements (each one page), and arrange for three reference letters to be sent to bpik2@unl.edu. Application review is 1/15/2015. The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers.

New Hampshire

■ The mathematics department at Southern New Hampshire University seeks candidates for assistant professor of mathematics beginning 09/01/2015. This is a full time, face-to-face position at the traditional day school with benefits package. Successful candidates will help build upon the recent launch of new majors and minors in math and work to enhance our statistics offerings. A PhD in statistics or mathematics is required. <http://bit.ly/1xfui48>. EOE.

Survey Sampling Statistician

EOE

Westat is an employee-owned corporation headquartered in the suburbs of Washington, DC (Rockville, Maryland). We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, Westat has become one of the leading survey research and statistical consulting organizations in the United States.

Our company was founded in 1961 by three statisticians. The current staff of more than 2,000 includes over 60 statisticians, as well as research, technical, and administrative staff. In addition, our professional staff is supported by data collection and processing personnel situated locally and in field sites around the country. The work atmosphere is open, progressive, and highly conducive to professional growth.

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

We are currently recruiting for the following statistical position:

Survey Sampling Statistician

Responsibilities include: developing sample designs (determining stratification and allocation to strata; determine sample size based on differences and power; determine optimal clustering; and select sample); selecting and/or constructing appropriate sample frame; developing and documenting weighting plan which includes non-response adjustment and bench-marking; developing and conducting imputation for item nonresponse and estimating sampling errors using appropriate software; writing specifications for programmers; and preparing reports on sample design, weighting procedures and other methodological issues. Candidates would benefit from knowing SAS and other statistical software packages; although candidates are not required to do programming. A master's or doctoral degree in statistics is required with 3 or more years of relevant experience. Coursework in sample survey design is highly desirable.

Westat offers excellent growth opportunities and an outstanding benefits package including life and health insurance, an Employee Stock Ownership Plan (ESOP), a 401(k) plan, flexible spending accounts, professional development, and tuition assistance. To apply, go to www.westat.com/careers.

New York

■ Statistician. Seeking individual w/ PhD in statistics to join research lab studying human neuroelectrophysiology, alcoholism and genetic data in major national study of genetics of alcoholism. Experience/knowledge of statistical genetics (GWAS), multivariate, time series, mixed model analyses, research design, & analysis of longitudinal data; Programming expertise: SAS and/or S+/R. Salary 50K-75K. Excellent benefits. Please submit a letter of interest and CV (PDF) to stat-position@hbnl.downstate.edu EOE.

■ The department of mathematics at the State University of New York at Oswego invites applications for a tenure-track assistant professor position. Review of applications will continue until the position is filled. For complete information about the position and application procedures, visit www.oswego.edu/vacancies. SUNY Oswego is an Affirmative Action/ Equal Opportunity Employer.

Ohio

■ The Cleveland Clinic Department of Quantitative Health Sciences is searching for a faculty member. Candidates should have considerable experience collaborating on clinical research and a proven record of collaborative publications. A PhD in bio-informatics or a related field is required. Candidates must have at least 2 years of experience beyond the doctoral degree. Details and application instructions are at www.lerner.ccf.org/qhs/jobs. EOE.

Pennsylvania

■ The Wharton Statistics Department, University of Pennsylvania, seeks applicants for a full-time, tenure-track assistant professor position, appointment beginning July 2015. Candidates should show outstanding capacity and achievement in research, along with excellent teaching skills. Applicants must have a PhD (expected completion by June 30, 2016 is acceptable) from an accredited institution. Please visit our website to

Department of Statistics | Columbia University

Faculty Position Starting Fall 2015

The Department of Statistics invites applications for a tenure-track Assistant Professor position in applied/interdisciplinary statistics to begin July 1, 2015. A Ph.D. in statistics or a related field and commitment to high quality research and teaching in statistics and/or probability are required. Candidates will be expected to sustain an active research and publication agenda and to teach in the departmental undergraduate and graduate programs. The ideal candidate would be eligible to become a member of the Institute for Data Sciences and Engineering.

The department currently consists of 25 faculty members, 40 PhD students, and over 100 MS students. The department has been expanding rapidly and, like the University itself, is an extraordinarily vibrant academic community. For further information about the department and our activities, centers, research areas, and curricular programs, please go to our web page at: www.stat.columbia.edu

Applicants are required to create an applicant profile and upload a CV through Columbia's online Recruitment of Academic Personnel System

(RAPS). To begin the application process, please go to <https://academicjobs.columbia.edu/applicants/Central?quickFind=60010>

Additionally, applicants must submit materials through Head Hunter (<https://editorialexpress.com/hhc>). The Department of Statistics positions will be visible in Head Hunter by clicking on "Positions" after logging in to the Candidate Application Interface.

In Head Hunter, applicants for this position should submit a cover letter, current Curriculum Vitae, a brief statement of their research plans, one writing sample, and arrange for three letters of reference to be sent on their behalf.

■ Applications will only be considered for the position once the process is completed both in RAPS and in HEAD HUNTER.

■ Inquiries may be made to dk@stat.columbia.edu

■ Review of applications begins on **December 2, 2014**, and will continue until the position is filled.

Columbia University is an Equal Opportunity/Affirmative Action employer.



HARVARD UNIVERSITY DEPARTMENT OF STATISTICS

The Department of Statistics at Harvard University invites applications for 1 or more non-ladder appointments in any area of statistics. Candidates should indicate which of the following 2 positions they are primarily interested in. All positions expected to begin 7/1/15. Applications received by 1/31/15 are guaranteed consideration.

Senior Lecturer. Will have demonstrated strong performance in small and large group statistical teaching, especially at the undergraduate level and a strong track record in developing statistical methods. The position includes teaching 3 undergraduate courses, advising senior theses, training instructional support staff (including leading our pedagogy course), coordinating departmental planning, and helping to shape and administer the undergraduate curriculum. The appointment is for an initial period of 5 years, renewable every 5 years after review. A doctorate in statistics or related field is required, and candidates preferably have at least 3 years of recent teaching experience at a research-intensive institution. We welcome applicants at different points in their careers, including those who wish to focus predominantly on teaching outstanding students and institution building, after a research focused career.

Lecturer. Will teach 4 undergraduate level courses annually and advise students at the undergraduate and Master's levels. A research record is required, including a doctorate by the start of the appointment in statistics or related field. Candidates should have demonstrated strong small and large group undergraduate teaching performance at a research-intensive university and have strong interests in statistical research. This is a 3 year appointment, subject to satisfactory performance, and is not renewable. Candidates who wish to fulfill this position on a part-time basis, perhaps combined with an appointment at a research institute, for example, are welcome to apply.

Applications should include a cover letter, a CV, teaching statement, and evidence of teaching excellence (e.g., course evaluations, if available), and at least 3 references to be sent to one of the following addresses:

Applicants interested in applying for Senior Lecturer should submit these materials, to <https://academicpositions.harvard.edu/postings/5787>.

Applicants interested in applying for Lecturer should submit these materials to <https://academicpositions.harvard.edu/postings/5785>.

Harvard University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.

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- Improve statistical methods for modeling and adjustment of seasonal time series.
- Perform research on statistical methodology that will improve the quality and value of the data collected.
- Publish research papers and technical documentation of your work.

Requirements

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

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

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

apply: <https://statistics.wharton.upenn.edu/recruiting/facultypositions>. Questions can be sent to statistics.recruit@wharton.upenn.edu. The University of Pennsylvania is an EOE. Minorities / women / individuals with disabilities / protected veterans are encouraged to apply.

■ The Wharton Statistics Department, University of Pennsylvania, seeks candidates for a postdoctoral researcher position. The position is for two years beginning in summer 2015, with a possible extension to three years. The primary focus is for a new scholar to develop her/his research program; a light teaching load will also be involved. Please visit our website to apply: <https://statistics.wharton.upenn.edu/recruiting/postdocpositions>. Please direct questions to stat.postdoc.hiring@wharton.upenn.edu. The University of Pennsylvania is an EOE. Minorities / women / individuals with disabilities / protected veterans are encouraged to apply.

Texas

■ The department of mathematics and statistics invites applications for two tenure-track assistant professor positions in statistics and biostatistics beginning fall 2015. A PhD degree is required. Apply for Requisition ID 1818BR at <http://www.texastech.edu/careers>. Include AMS standard cover sheet and vita. Have three letters of reference sent to Alex Wang, Hiring Committee Chair, Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409-1042, alex.wang@ttu.edu. www.texastech.edu/careers. Texas Tech is an AA/EO employer.

Utah

■ Faculty, assistant professor, statistics. The department of mathematics at Utah Valley University invites qualified individuals to apply for a tenure-track position as an assistant professor of statistics beginning August 2015. Candidates must have a doctoral degree in statistics by August 2015. Review of applications will continue until the position is filled. Apply at www.uvu.jobs. EOE.

Virginia

■ The Virginia Tech Department of Statistics (www.stat.vt.edu) has a tenure-track opening to support its computational modeling and data analytics program (www.science.vt.edu/ais/cmda). Required are a PhD in statistics or related field and research focus in data analytics, machine learning, stochastic modeling, or related computationally intensive statistical methods. Further information is available at the links above. Applications must be submitted online at listings.jobs.vt.edu (posting #TR0140103). Virginia Tech is an EO/AA university and offers a wide range of networking and development opportunities to women and minorities in science and engineering.

Wisconsin

■ Department of biostatistics and medical informatics at University of Wisconsin School of Medicine & Public Health and Morgridge Institute for Research seek assistant (tenure-track) or associate/full (tenured) professor in biostatistics



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Learn more at www.amstat.org/accreditation

FACULTY POSITIONS IN STATISTICS



The Computer, Electrical, and Mathematical Sciences and Engineering (CEMSE) Division at King Abdullah University of Science and Technology (KAUST) invites applications for faculty positions in Statistics at all levels (Assistant, Associate, and Full Professor) beginning in the fall of 2015.

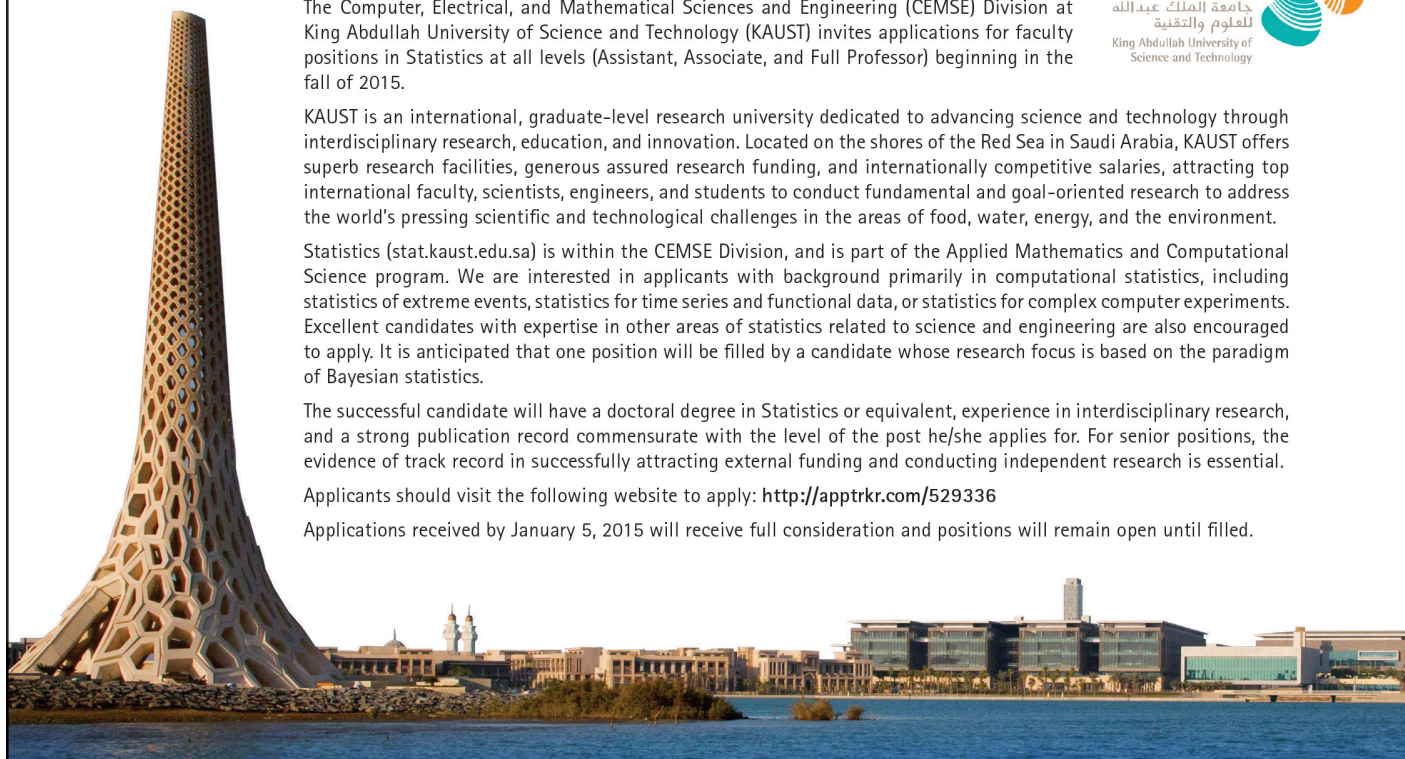
KAUST is an international, graduate-level research university dedicated to advancing science and technology through interdisciplinary research, education, and innovation. Located on the shores of the Red Sea in Saudi Arabia, KAUST offers superb research facilities, generous assured research funding, and internationally competitive salaries, attracting top international faculty, scientists, engineers, and students to conduct fundamental and goal-oriented research to address the world's pressing scientific and technological challenges in the areas of food, water, energy, and the environment.

Statistics (stat.kaust.edu.sa) is within the CEMSE Division, and is part of the Applied Mathematics and Computational Science program. We are interested in applicants with background primarily in computational statistics, including statistics of extreme events, statistics for time series and functional data, or statistics for complex computer experiments. Excellent candidates with expertise in other areas of statistics related to science and engineering are also encouraged to apply. It is anticipated that one position will be filled by a candidate whose research focus is based on the paradigm of Bayesian statistics.

The successful candidate will have a doctoral degree in Statistics or equivalent, experience in interdisciplinary research, and a strong publication record commensurate with the level of the post he/she applies for. For senior positions, the evidence of track record in successfully attracting external funding and conducting independent research is essential.

Applicants should visit the following website to apply: <http://apptrkr.com/529336>

Applications received by January 5, 2015 will receive full consideration and positions will remain open until filled.





**THE FLORIDA STATE UNIVERSITY
DEPARTMENT OF STATISTICS
ASSISTANT PROFESSOR IN BIostatISTICS
OR STATISTICS (TENURE-TRACK)**

The Department of Statistics at Florida State University invites applications for an Assistant Professor position in biostatistics or statistics starting August 2015. We have a growing teaching and research program with over 70 undergraduate majors and over 135 graduate students. We offer a B.S. degree in Statistics and M.S. and Ph.D. degrees in Statistics and Biostatistics. Candidates with interests in all areas of biostatistics and statistics are invited to apply. A PhD in statistics, biostatistics, or a related field is required. Candidates should have strong commitments to excellence in teaching and research.

Review of candidates will begin November 1, 2014 and continue until the positions are filled.

Applications are being accepted online. Please visit our web site at <http://stat.fsu.edu> to apply and for additional information about the Department of Statistics. The positions will also be advertised at <http://jobs.fsu.edu>.

Florida State University is an Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer.

or bioinformatics. Innovative position combines research in methodology with applications in virology and related molecular biology; includes teaching, graduate student training. PhD in biostatistics, statistics, bioinformatics, computational biology, biomedical informatics, computer sciences, or related area. Please see www.biostat.wisc.edu/content/assistantassociatefull-prof-biostatistics-biomedical-informatics-pvl-80903. AA/EOE.

International

■ Wang Yanan Institute for Studies in Economics & School of Economics, Xiamen University, China. Full-time, tenure-track/tenured professorship positions in statistics beginning September 2015. Preferred areas of specializations are theoretical and applied statistics. PhD degree in statistics or probability theory must be completed by August 1, 2015. Send applications, including cover letter, CV, samples of research work, and three reference letters to recruit.wise.xmu@gmail.com. EOE. ■



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

DEPARTMENT OF BIostatISTICS

The Department of Biostatistics at the Johns Hopkins Bloomberg School of Public Health is seeking an outstanding applicant to join our tenure track faculty. Rank of appointment will be commensurate with experience, and new PhDs and recent postdoctoral fellows are encouraged to apply. Candidates should have a PhD or equivalent in statistics, biostatistics, or a comparable data science field. In 2014-15 the Department particularly seeks new faculty members who are committed to education and to engagement in cutting edge research on statistical inference and methods and subject-area content for the population health, clinical and social health sciences. Women and under-represented minority candidates are particularly encouraged to apply.

Track Faculty Positions

The Hopkins Department of Biostatistics, founded in 1918, was the first degree-granting department of statistical science in the US and has ranked among the best throughout its history. The Johns Hopkins Health Institutions (Schools of Public Health, Medicine, and Nursing, and the Johns Hopkins Hospital) are among the top worldwide and provide a research environment in which energetic faculty can promulgate scientific excellence. Today, the Department comprises 21 tenure track faculty members, 18 research track faculty members, 13 postdoctoral fellows, 49 PhD students, 12 full-time master degree students, and 10 students pursuing joint master degrees together with doctorates in other departments.

TO APPLY

Email cover letter, CV, contact information for three references, a statement of research interests and goals, a teaching statement, and two manuscripts or articles representing your most important work to: Faculty Search Committee at margo@jhu.edu.

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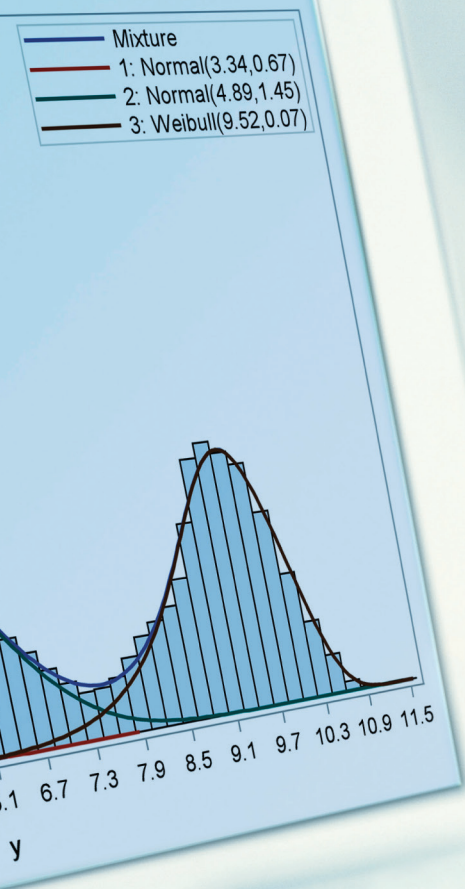
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professional opportunities

Ball State University.....	p. 38
Columbia University.....	p. 39, 41, 44
Cornell University.....	p. 42
Florida State University.....	p. 47
Harvard University.....	p. 44
Academia Sinica.....	p. 37
Johns Hopkins Bloomberg SPH.....	p. 47
King Abdullah University of Science and Technology.....	p. 46
North Carolina State University.....	p. 42
U.S. Census Bureau.....	p. 45
University of California, Irvine.....	p. 39
The University of Hong Kong.....	p. 43
University of Iowa.....	p. 41
University of Missouri.....	p. 41
University of Vermont.....	p. 38
Westat.....	p. 43

software

Cytel Inc.....	p. 15
Dell Software.....	cover 2
Minitab Inc.....	p. 8
NCSS.....	p. 13
Salford Systems.....	p. 36
SAS Institute, Inc.....	cover 3
SAS JMP software.....	cover 4



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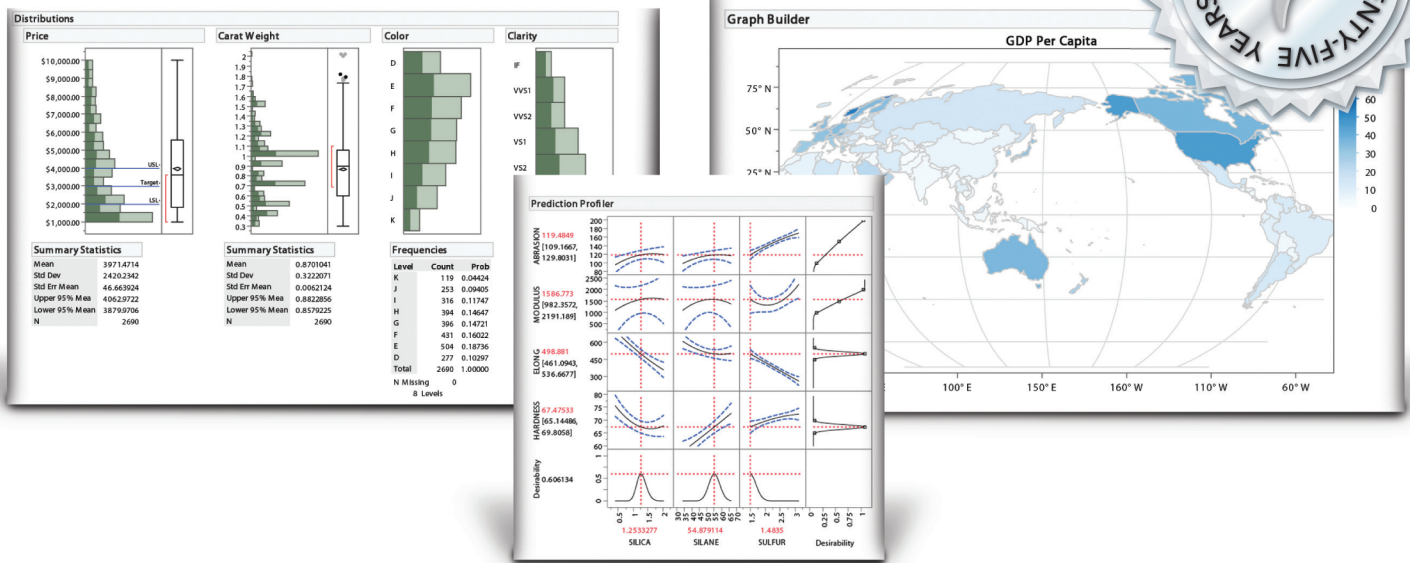
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- ▶ **Sensitivity analysis for multiple imputation.** Assess sensitivity of multiple imputation to the missing at random assumption with pattern-mixture models.
- ▶ **Survival analysis for interval-censored data.** Compute nonparametric estimates of the survival function for interval-censored data.
- ▶ **Bayesian choice models.** Use Bayesian discrete choice analysis to model consumer decisions in choosing products or selecting from multiple alternatives.
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