February 2017 • Issue #476

MST

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ALSO:

PASTIMES OF STATISTICIANS: What Do Statisticians Like to Do When They Are Not Being Statisticians?

Biostatistics Competencies Maintained in Public Health **Accreditation Criteria**

Everything you need

to plan your class.

togram s

mean as the fulcrum point the fulcrum point the same weight, in pe



Measures of Spread





Mean (~83.50) is less than the median (89)

Also noted in each picture are the modes (circled) and location of t definitions of these statistics are contained in the following pages.

modes

Example 1

Ten batteries from brands A, B, and C were tested to determine the

Brand A:	41	289	214	102	38	94	179
Brand B:	39	65	22	64	22	191	99
Brand C:	24	95	139	122	41	360	31

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AMSTATNEWS

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American Statistical Association

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 Conference on Repeated Measures Data Draws Crowd
- 5 Staff Spotlight: Lateesha Bailey-Gordon
- 6 Launching in Fall: New Opportunities for Contemporary Survey Methodologist
- 8 ASA Sponsors DSAA2017
- 9 High-School, College Sophomores Provide the Most Accurate Predictions of U.S. Presidential Election Results
- 10 Thank You, 2016 Donors
- 18 What Does a Statistician Do?
- 19 Biostatistics Competencies Maintained in Public Health Accreditation Criteria
- 25 Deadlines for ASA Awards Approaching Fast

columns

22 STATtr@k Selecting a Journal for Your Paper

STAT*tr@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.*



Statistical consultant Susan Spruill's new column about the pastimes of statisticians focuses on her hobby: beekeeping. **Page 24**

24 PASTIMES OF STATISTICIANS What Do Statisticians Like to Do When They Are Not Being Statisticians?

This series is written by those who are willing to share their pastimes with colleagues. If you have a hobby or would like to share with members of the ASA something you like to do when you are not being a statistician, contact Susan Spruill at *sspruill@appstatsconsulting.com* or Megan Murphy at *megan@amstat.org*.



Are You Ready to Vote in the **ASA Election?**

The 2017 ASA election opens March 15 at 12:01 a.m. ET and closes May 1 at 11:59 p.m. PT.

Please take a moment to visit the Members Only area of the ASA website and check whether your membership records are up to date. The ASA uses this information to generate the ballots and send them to you via email.

On the ASA home page, click on the "Login" link and enter your username and password to sign in. Please check the following:

- Membership expiration. If your membership expires at the time we are launching the election, you will not receive a ballot.
- Section membership. To vote for section • officers, you must be a member of that section. If you have an interest in a particular section, be sure you are a member.
- Email address. All ballots are delivered via • email. If the email address you have on file is incorrect, you will not receive your ballot.
- Whitelisting. Add support@eballot.com to • your safe list to ensure the proper delivery of key election information. Instructions for whitelisting can be found at *https://goo.gl/* tDehWP.

departments

meetings 26 Call for JSM Late-Breaking Session Proposals



Frtiz Scheuren will give the Deming Lecture at JSM 2017. Page 27

Fritz Scheuren to Give Deming Lecture CSP 2017 Award Winners Named

member news

- 29 Awards & Deadlines
- 31 **People News**
- 33 Section • Chapter • Committee News
- 42 Professional Opportunities



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Initiatives for the Long Game



Photo courtesy of Scott Kissell, Miami University

At Miami University, John Bailar, head of the statistics department (left), and Richard Campbell, chair of the media, journalism, and film department (right), record the Stats + Stories podcast with moderator Rosemary Pennington of the department of media, journalism, and film.

s president of the American Statistical Association, I have the task of developing new initiatives. In fact, upon learning I was elected president, several members immediately asked me, "What are your initiatives?" So, let me set the record straight. Yes, presidents are expected to establish initiatives, but I regarded this as more of an opportunity. This is the chance for me to offer activities I think the ASA should be doing anyhow and should be doing permanently.

I think many other presidents have had the same concept, but it is worth stating explicitly. Frankly, I also know some prior presidential initiatives that did not last permanently ... and these usually get named for the president that endorsed them. It is somewhat like the Affordable Care Act. If you like the program, you call it "affordable care." If you don't like it, you call it "Obamacare." So, here's hoping we remember and continue the initiatives and not necessarily that I was the guy who started them.

What are these initiatives? They are in the fields of communications, youth, and engagement of our largest growing professional sector.

Communications

For years, statisticians have had courses and seminars aimed at improving our communications so our studies, procedures, and results are better understood. However, this may not be enough. Some of you have heard my mantra, "It is not what we said; it's not what they heard; it's what they say they heard." I think we have done a great job at the first element and a decent job at the second, but there is much to do to ensure they understand and implement what we have produced.

This comes from my years as chief statistician of the U.S. Environmental Protection Agency. That job required me to work in collaboration with scientists, analysts, policymakers, economists, lawyers, etc. I had to make sure the statistical results would be properly integrated into policy, regulation, and enforcement actions.

I am delighted that some inroads have already been made in ensuring the recipient truly gets the message. I have been impressed with the Stats + Stories program at Miami University in Oxford, Ohio. John Bailar, head of the statistics department, teamed up with Richard Campbell, head of the media, journalism, and film department. They have developed audio podcasts in which a statistician is quizzed by a journalist and a statistician. Their maxim is "The Statistics Behind the Stories and the Stories Behind the Statistics."

This is precisely the interaction between statistics and real problems that has to be emphasized. The messages received by the public are enhanced if the statisticians communicate the analyses in an understandable manner and the reports accurately and succinctly include the pertinent data and statistics. For full disclosure, I was the guest statistician on Stats + Stories last April in a segment discussing environmental protection, titled "A Statistician Clears the Air." (Yes, I love double entendres.)

Rather than reinventing the wheel, we are teaming up with Miami University to create a more national profile for Stats + Stories while supporting the ASA's



Barry D. Nussbaum

initiative to be the "Face of Statistics." Activities include joint editorial discussions concerning the selection of topics and presenters, increasing the production schedule to include monthly podcasts, introducing biweekly short Stats + Stories, and reducing the time between interview and release to ensure more timely podcasts.

I am delighted that Donna LaLonde of the ASA staff is leading this effort, signifying, among other things, the ongoing nature of this initiative.

Youth

In an effort to promote our profession to young folks, I think we have to go earlier and earlier into their school awareness. While progress has been made at all levels of K–12 and in describing a model statistics undergraduate curriculum, I think some quick internet snapshots might intrigue the youth, perhaps at the middle-school level. These one-minute animations, cartoons, discussions, etc.,—all with the goal of piquing a young person's interest in statistics—would be called "Stat Shots."

The impetus for this was my trip a few years ago to the Museum of Mathematics in New York City. I watched in amazement while young children were intrigued by mathematical concepts. They didn't even think of it as "learning." It surely was motivational to them. But, alas, there was nothing about statistics in the mathematics museum. To fill this void, did we need our own museum? Try as I did, the ASA did not seem interested in erecting a brick and mortar statistics museum. But, the ASA will be establishing a virtual museum for statistics, tentatively called the "House of Statistics," to produce firstclass, intriguing products. A task group, including ASA staff members, has been assembled to suggest topics, view similar content already on the web, and develop initial examples. The staff have already identified many websites with applicable content. With suitable arrangements, these can be included in the ASA's House of Statistics.

Engagement

It is quite apparent that while we are the American Statistical Association, many members come from other countries. I have observed that these members frequently give papers at JSM, but are not as active in the inner workings of the ASA, such as belonging to sections, chapters, and committees. The fastestgrowing segment of our profession (and the predominant segment of statistics departments in the United States) consists of Asian statisticians. So, I established an initiative, which some have called the "Asian Initiative," that seeks to address the needs of Asian students and young professionals.

To that end, we have established a joint task force with two representatives each from the International Chinese Statistical Association, International Indian Statistical Association, and Korean International Statistical Society, as well as one appointed by the ASA. We have asked those three organizations to invite a younger colleague who is active and involved enough to have a good sense of what Asian students and early-career professionals are thinking about. We are especially interested in differences in cultures or customs that might affect their involvement in statistical societies. The purpose of this task force is to determine the needs of Asian statisticians as they prepare for and enter the profession, with a view to their success as professionals and their ongoing involvement in our societies.

We are undertaking this initiative since we firmly believe active participation in the professional society proves mutually beneficial to the individual statistician, the society, and the profession as a whole. We would like to work together to make recommendations for our societies to attract and retain young Asian members.

The task force is charged with gathering information as directly as possible from students and early-career professionals—and those who are in a position to influence them—about their interests and needs and to make recommendations based on that information. As a measure of how seriously I view this initiative, I asked 2015 ASA President David Morganstein to chair the task force.

I am convinced that successful efforts on these initiatives will serve to enhance the ASA and our entire profession. Let me repeat, however, that I do not intend for these to be one-year efforts. My belief is that the ASA should sustain these efforts long after I stop writing this column. Since these are multiyear, it means more people than just the initial task forces will be involved. That invariably means you. So, please don't just regard these as a passing fad. Join in and help make them successful sustained efforts.

Significantly forward, Barry

Bur D. Venler

To share story ideas or suggest potential guests for the Stats + Stories podcast, complete this form: http://bit.ly/2jTsP38.

Conference on Repeated Measures Data Draws Crowd



A pproximately 150 participants from various countries attended the International Conference on Analysis of Repeated Measures Data November 25–26, 2016, at Nawab Ali Chowdhury Senate Bhaban of the University of Dhaka. The conference was held by the East West University Department of Applied Statistics.

There were four plenary sessions given by Bikas K. Sinha, Ashis SenGupta, and Mausumi Bose of the Indian Statistical Institute and Abdus S. Wahed of the University of Pittsburgh.

A special session by M. Ataharul Islam of East West University highlighted the recent developments in the analysis of repeated measures data. Additionally, two pre-conference workshops, titled "Applied Longitudinal Data Analysis" by 2015 ASA Educational Ambassador Mohammad Shafiqur Rahman and "Missing Data in Longitudinal Studies" by ASA Committee on International Relations in Statistics Vice President Abdus S. Wahed, were held November 24, 2016, at East West University.

A total of 76 papers (four plenary, one special, 26 invited, and 45 contributed) were presented in the scientific sessions. For more information, visit *https://goo.gl/XN12nJ*.

STAFF SPOTLIGHT Lateesha Bailey-Gordon

I'm Lateesha Bailey-Gordon, the newest member of the customer service team here at the ASA.

I was born and raised right here in Washington, DC, and I'm still a true Washingtonian. I started in the association industry in 2006. My first association job was at the National Association of Insurance and Financial Advisors, where I worked for 12 years before coming to the ASA.

I'm a full-time wife, mother, and grandmother. In my free time, I love cooking, baking, and spending time with family and friends.



Lateesha Bailey-Gordon

JOINT PROGRAM IN SURVEY METHODOLOGY

Launching in Fall: New Opportunities for Contemporary Survey Methodologist

Jody Derezinski Williams

The Joint Program in Survey Methodology (JPSM)—with faculty from the University of Maryland, University of Michigan, and Westat—is introducing new programs to respond to the ever-increasing use of Big Data and the corresponding need for methods of analysis and inference. Whether one is seeking a graduate degree in survey methodology or additional training through professional development programs, JPSM offers the necessary tools to address the fast-paced changes in survey research.

Onsite Degree-Seeking Program – New Data Science Track

The JPSM onsite graduate degree program at the University of Maryland comprises both a PhD and master's degree program. In addition to the existing emphases in survey statistics and social science, students can choose a third emphasis in data science starting in fall 2017. This new track includes computational aspects of survey methodology, data visualization, management and analysis of large and complex data sets, human-computer interaction in survey research, and machine learning algorithms.

Online For-Credit Program – New MPS Degree

In 2015, JPSM started offering training online. Graduate certificates in both survey methodology and survey statistics can now be earned entirely online. In fall 2017, a master's degree in professional studies in survey and data science will be added to the online offerings. This new 30-credit degree program has an applied focus and will offer shorter, modular courses in a web-based learning environment, providing the necessary flexibility for working professionals.

Professional Development – New Data Analytics Training Program

In a collaborative effort, JPSM and the University of Maryland College of Information Studies, Robert F. Wagner School of Public Service at New



York University, and University of Chicago Harris School of Public Policy have created a first-of-itskind nondegree training program in applied data analytics. This program provides professionals the opportunity to develop key computer science and data science skill sets to advance public policy. The goals of this include the following:

- Provide training in rigorous and modern computational data analysis methods and tools for decision making
- Develop new data products for government agencies
- Create new integrated data to address cross-agency challenges
- Establish new networks across agencies and geographies to address shared problems

Short Courses

For those who may be interested in taking one or two courses to boost their survey research understanding, nondegree-seeking options are also available. These short courses are taught by JPSM faculty and alumni, senior professionals in the field, members of the University of Maryland College of Information Studies, and a range of professors from international partner universities.

Future Generations of Survey Methodologists

This past summer, JPSM was a sponsor of the first-ever Data Detectives Summer Camp, conducted by the National Center for Health



Survey Methodology BE COUNTED



Statistics. This one-week STEM commuter day camp was designed for rising 6th–8th-grade students from DC-area middle schools, providing them the opportunity to learn about statistics through a variety of engaging, hands-on activities. This collaborative effort was supported by the American Statistical Association, University of Maryland School of Public Health, and the Center for Disease Control and Prevention's Disease Detectives Camp. With more than 200 applications for 30 spots, there are plans to continue offering this camp every summer.

In the spring of 2017, the third annual ASA DataFest will be held at Summit Headquarters in Washington, DC, and organized by JPSM and Summit Consulting. ASA DataFest is a data analytics competition for teams of undergraduate students from area colleges and universities. Over the course of a weekend, teams attack a large, complex, and surprise data set from a well-known company. The competition provides students the opportunity to develop and improve upon analysis and critical thinking skills with hands-on, applied experience. Past participants have found the event to have a direct effect on their success in landing jobs after graduation.

JPSM encourages undergraduates to consider survey methodology and survey statistics in various ways. Celebrating its 19th year, the JPSM Junior Fellows Program continues to be a highly competitive and sought-after summer internship opportunity. This national competition offers students a paid research assistantship in a federal statistical agency in the Washington, DC, area supplemented by a weekly seminar.

In addition, JPSM offers an undergraduate minor in survey methodology, which draws on students from across the University of Maryland campus. Upon graduation, many have found the skills acquired through this minor program have given them a competitive edge in both employment opportunities and graduate school applications.

Frauke Kreuter, director of the Joint Program in Survey Methodology, during her remarks at the 2016 JPSM commencement ceremony, said, "Just last week, the City of New York and Facebook asked if we (JPSM) had any recent graduates that could be hired. I am asked this question every year right around graduation by different agencies, and every year, my reply is the same ... 'Sorry, they have already been spoken for." ■

MORE ONLINE

To date, JPSM has had more than 270 graduates working in government agencies, academic settings, and private survey research firms. Details can be viewed at www.jointprogram. umd.edu.

ASA Sponsors DSAA2017

Elevates Impact of Statisticians in Data Science

Jill Talley, ASA Public Relations Manager

MORE ONLINE

To read more about DSAA2017, visit https://goo.gl/2rrdRh. View photos from DSAA2016 at www. dsaa.co.

ecognizing that statistics is one of three foundational areas of data science, the ASA is sponsoring the 4th IEEE International Conference on Data Science and Advanced Analytics (DSAA2017) October 19–21 in Tokyo, Japan. Founded in 2014 by the Institute of Electrical and Electronics Engineers (IEEE) Computational Intelligence Society and the Association for Computing Machinery (ACM) Special Interest Group on Knowledge Discovery from Data, the conference provides a premier forum for researchers, industry practitioners, and Big Data users to exchange ideas and participate in top-level discussions about best practices of applications and the latest theoretical developments in data science and analytics.

"Statistics, by nature, is interdisciplinary and—together with the expansive field of data science—can spur innovation and solve some of society's most pressing challenges," said Ron Wasserstein, executive director of the ASA. He continued, "The opportunity to collaborate with IEEE and ACM on DSAA2017 will drive discussion among some of the world's



foremost scientific leaders, business executives, and government officials, harnessing the power and possibilities of data-driven scientific discovery while showcasing and strengthening the expertise of statisticians in high demand all over the world."

In 2017, the ASA will play an active role in planning the conference program, including identifying session topics and speakers and assisting with overall conference promotion to key target markets. The ASA sponsored the conference in 2016 as well, marking the first time statistical and computing/ information science societies teamed up to conduct a data science conference and promote disciplinary development in data science.

"The healthy development of data science relies heavily on the effective dialogue between relevant disciplines, in particular, statistics, computing, management, and social science, as well as different domains and areas," said Longbing Cao, chair of the DSAA Steering Committee. "DSAA is a unique global driver to enable and promote such transformative collaborations by initiating and continuously organizing strategic and highprofile activities, in particular, encouraging and underpinning the continuous engagement of ASA and statistics communities. Every year, DSAA supports prestigious keynote, tutorial, special sessions, and invited talks about data science trends by top leaders in statistics."

High-School, College Sophomores Provide the Most Accurate Predictions of U.S. Presidential Election Results

Winners of Prediction 2016 used sophisticated statistical methods to predict state-by-state and overall percentage outcomes with greater accuracy than more than 450 students across the United States.

Using statistical data and sophisticated analytical methods, two students—one highschool sophomore and one college sophomore—provided highly accurate predictions of the outcome of the 2016 presidential election as part of the American Statistical Association's Prediction 2016 contest (*http://thisisstatistics.org/election prediction2016*).

Benjamin Skapura, a student at Brecksville Broadview Heights High School in Ohio, and Lexi Poynor, an undergraduate student at Oklahoma State University, emerged as winners of the contest after submitting their pro-PREDICTION * 2016 jections for state-by-state results and the percentage of votes cast for each candidate in the general election. Although they did not predict a Trump victory, their projections for individual state results and total vote percentages were the highest among the 193 contest submis-

sions from 19 states and more than 30 institutions.

To compile their state-by-state projections, both students referenced RealClearPolitics and Fivethirtyeight, among other resources, to examine polling data for individual states. They applied additional research and analysis to reach their conclusions. Skapura accurately forecasted the victor in 46 states—all but the battlegrounds of Florida, North Carolina, and Pennsylvania. Poynor correctly projected the winning candidate in 45 states.

"For the swing states, I looked at a multitude of polls and took three factors into account: the size of the population of likely voters, the past accuracy of the poll, and the bias of the poll," said Skapura. "I learned through this process how important it is to ensure the polls we use to reach our conclusions are rated and ranked by independent sites that verify their accuracy.

There are many resources available online that skew toward one side or the other."

For the outcome of the popular vote, which both students accurately projected for Clinton, the analysis included a review of state predictions, general election polls, and news regarding the election. Skapura expected Clinton to draw 48.1% of the popular vote to Trump's 45.8%, while Poynor predicted the candidate to win 49.8% to Trump's 46.1%. As of noon on November 10, the official conclusion of the contest judging peri-

od, Clinton had won 47.7% and Trump had secured 47.4% of the popular vote.

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projection.com, fivethirtyeight.com, and ijr. com—and averaged those numbers to come up with my answers."

In addition to projecting individual state and overall election winners, Poynor also predicted a voter turnout of 129,822,350, just above the actual turnout of 126.4 million.

Both winning students will receive a prize package from the ASA, including \$200, a complimentary ASA membership, a guest column in the popular Sense about Science blog (*www.senseaboutscience usa.org/blog*), and a Prediction 2016 T-shirt.

"I am so impressed by the sophistication of the analyses the students used to reach their conclusions in this competition," said William Christensen, a statistics professor at Brigham Young University and an adviser for the contest. "We saw the use of simulation tools, past data, demographic information, and trend analysis, which are all very wellconsidered approaches. To see this from young people so early in their development is remarkable."

MORE ONLINE

To learn more about how statistics is used to forecast the future and drive decision making, visit *ThislsStatistics.orq*,

MORE ONLINE To learn more and to donate, visit www.amstat. org/giving. very year since 2009—when the ASA began its membership giving campaigns— ASA members have broken the fundraising record set the previous year. It has happened again! In 2016, a total of just about \$163,000 was raised in support of ASA programs. That is nearly a 15% increase over 2015's total of close to \$142,000.

The signature focus of this year's membership giving campaign was to raise awareness and funds for ASA education programs. Each month during the fall, we highlighted a different story that showed the impact these programs and services have on individual members, students, and society in general.

In December, two anonymous Google statisticians offered to match all member donations in support of the education campaign up to \$10,000. In just under two weeks, ASA members answered the call and raised a total of \$20,000! By the end of the campaign in mid December, more than \$50,000 was raised for education programs. Well done, ASA members!

Thank you to all of the Helen Walker Society charter members!

S

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2016 also marked the inaugural year for the Helen Walker Society, the ASA's donor club for annual gifts of \$1,000 and above. Anyone who made a gift of \$1,000 or more between January 2015 and the Inaugural Helen Walker Society Luncheon at JSM 2016 in Chicago became a charter member of the society.

CIE

Stan Altan David Banks John Bartko Mark Berenson Mary Ellen Bock Patrick Cantwell Marie Davidian Richard De Veaux Jonas and Susan Ellenberg Marian Farah Mitchell Gail Tim Hesterberg Edward Hirschland Ronald Iman Borko Jovanovic Jon Kettenring Michael Kutner Mary Kwasny James Landwehr Cynthia Long Juanita Lott Robert Mason Madhuchhanda Mazumdar Salil Mehta David Moore David Morganstein Sally Morton William Notz Barry Nussbaum David Olive Ingram Olkin Robert O'Neill Sastry Pantula Robert Rodriguez Richard Scheaffer Nathaniel Schenker Monroe Sirken William and Patricia Smith Jessica Utts Katherine Wallman Naisyin Wang Ronald Wasserstein Ying Yan



This year, we are looking forward to communicating more about the work the ASA is doing to support statistics education, public engagement and statistical literacy, professional development and mentoring of young professionals, and advocating for the statistics profession. We will bring you more personal member stories that will show

2016 Helen Walker Members (\$1,000 +)

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Thank you to everyone who made 2016 another successful year!

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Abdel-Salam Gomaa Abdel-Salam Athula I. Abeyratne Ralph Lawrence Ades Mohneet Ahuja **Rich Allen** David B. Allison Hashem Alsaket Wendy L. Alvey David A. Amato Philip J. Ambrosini Roya Amjadi Jana McCaulley Anderson Kevin Anderson Stewart J. Anderson Masakazu Ando Alexander Andronov Konstantia Angelidou Zoran Antonijevic Consuelo Arellano **Timothy William** Armistead Jonathan Auerbach Esinam Ethel Awuku Geraldine E. Baggs Jarrett Jay Barber Wesley W. Basel Saonli Basu Rex J. Bates **Donald Mark Bauder** Valbona Bejleri Alvin Beltramo

Phillip Bender Jr. Amy E. Beresky Theodore Berkowitz Charles C. Berry Andreas Betz Samrat Bhattacharya Helen Bhattacharyya Thomas R. Birkett Herbert L. Bishop Jr. **Todd Blessinger** Daniel Boada Stefan Boedeker Ricardo Bolado Laura Bond Andrew James Booker Nicholas Bowersox Tucker Briggs Nancy E. Brucken Jan Bruha Xianwei Bu Rebecca A. Buchanan Leonard Buchner Steven Buechler Andreas Buja Richard K. Burdick Bart E. Burington Dustin M. Burt Michael Butterworth Allen B. Buxton Alexander C. Cambon Joseph C. Cappelleri Robert H. Carver Aki N. Caszatt Grace Chan Wenvaw Chan Hadrien Charvat Edmond Cheng

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Yuhang Liu John D. Loft Clifford Long Stephen W. Looney Charles A. LoPresti Maria Lorenzi **Timothy Lutz** Merritt Russell Lyon Vicki A. Lyons Ryan J. Machtmes Wendy J. Mack Carole J. Makela **Dalisay S. Maligalig** Amandeep Kaur Mann Dennis R. Mar Olga V. Marchenko Shannon Markiewicz Jose Gerardo Marquez **Timothy Haigh Marvin** Bridget R. Matamoros-Mota Norman S. Matloff Joe Matsuoka LeRoy T. Mattson **Charles Maynard** David Michael **McCarthy** Thomas P. McCoy Kathleen M. McDonald-Johnson Monnie McGee Stephen A. McGuire Raymond E. McIntyre Barbara McKnight Elizabeth McKnight Phoebe McLaughlin Linda Jansen **McWilliams** Grace Medley

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Memorial Gifts

Gifts were made in fondest memory of the following individuals:

Martha Aliaga Sam Arenberg Michael Butler Herman Chernoff Bill Church Lester R. Curtin Sunil Baran Debroy Mary Grace Kovar Frederick Mosteller Ingram Olkin Manny Parzen Daniel Sargent Deebah S. Hajaj and Abdullah M. Shayib Vachaspati Zhiying Zhong

Tribute Gifts

Gift made in honor of David R. Morganstein's three-year term as ASA president

Michael Sullivan III James J. Swain Peter Swanson Wendy L. Swanson Ruth Ellen Swanton **Dionne Swift** Gerald R. Swope James Talboy Ismael S. Talke Daniel Joseph Tancredi Kezhen Linda Tang Yves Thibaudeau Bonnie Arlene Thiel **Hoben Thomas** Mary E. Thompson Steven F. Thomson Tamara Tom Nancy K. Torrieri Robert D. Tortora Ben Tupper Jeffrey E. Vaks Mark C. Van Buskirk Cynthia B. Van Landingham

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18 amstat news february 2017

A high-school student, working on a research project about careers in statistics, emailed ASA **President Barry D. Nussbaum** and asked if he would answer a few questions. We thought we would share the questions and answers here. Share these answers with a student you know.

Q&A WITH ASA PRESIDENT BARRY D. NUSSBAUM What Does a Statistician Do?

How much does a person usually make in this career?

I'm happy to say that statisticians can earn a very nice income. As with everything else in statistics, there is variance in the number, so just giving you an "average income" would not be very useful. It also depends on many factors, such as where you work (academe, government, industry), how long you have worked, what position you have attained, etc.). A wide range of incomes between \$80,000 and \$300,000 exists. You can see the details based on two large surveys of income on the American Statistical Association's website under career opportunities.

What kind of lifestyle does this career provide (working hours, family life, financial class)?

Most of the work is office work, roughly 9–5. Of course, there are "crunch" times on many projects that require extra time. This occurs in any field. Just about all statisticians take advantage of meetings, courses, seminars, and presentations that allow them to travel. Good statisticians also make it their practice to get up and get out of the office to see projects such as surveys as they are implemented. You should be able to spend time with family ... or better yet, make a vacation and bring the family to statistical meetings.

What skills should I develop for this career?

I would recommend a solid background in mathematics, statistics, and computer science, as well as courses in a subject matter you are interested in applying statistics to. You also need the ability to communicate results to those who may not be as well versed in statistics as you are.

What are the day-to-day duties of this job?

Just like it's hard to specify an "average income," it is difficult to describe an average day. The activities that might be included in any day are analyses of data sets, helping devise sampling plans, presenting reports and suggestions, reviewing work of other statisticians, teaching classes, doing research projects, and attending meetings. I think you will find that the more varied the activities are, the happier you will be.

What education/training should I get to be better prepared than my competition?

Again, I would suggest a good solid backing in mathematics, statistics, and computer science.

Also, most statisticians work on problems in which they collaborate with others to apply their work. As an example, my efforts were applied to environmental protection. So, some training in the subject matter (such as environmental science) helps you get ahead of the competition. Also, learning how to communicate your work to someone else is critical. Think of how important that is in a job interview. For some reason, the ability to communicate well is considered a "soft skill." I don't like that description. It might well be the hardest thing to learn.

What area of the world would have the most openings for this career?

There are many areas that require statisticians. Universities, of course, hire academic statisticians. Industry and government usually hire more applied statisticians.

So, having just said that, you should realize there are plenty of academic statisticians who do applied work and plenty of applied statisticians doing academic work.

And it might surprise you to know that statisticians are quite diverse. Look at the website *www.thisisstatistics.org*. They describe many of the types of jobs available. And they even have a quiz titled, "Is a career in statistics right for you?" Give it a try.

How much experience are employers looking for in a new candidate?

I think employers will be impressed if you have a good grounding in mathematics, statistics, and computer science and can express yourself well in an interview. New candidates can impress a potential employer if he or she can express some project they did for school. Even better if they can express it clearly and enthusiastically.

Do you see this career becoming more in demand or less?

The demand for statisticians is growing and growing. The Bureau of Labor Statistics estimates a 34% growth between 2014 and 2024. That is a very sizeable increase in demand.

This is the question you didn't ask, but should have, so I will ask it. Is a career in statistics fun, interesting, rewarding, and satisfying?

Yes, yes, yes, and yes.

Biostatistics Competencies Maintained in Public Health Accreditation Criteria

When the 2016 draft Council on Education in Public Health Masters of Public Health Accreditation Criteria were released earlier this year, they no longer included specific mention of biostatistical skills among the required competencies. The biostatistics community rallied to make the case for the importance of biostatistics to public health research and practice.

The accreditation criteria in question are from the Council on Education for Public Health (CEPH), an independent agency whose mission is to accredit schools of public health and public health programs. Its two corporate members are the American Public Health Association and Association of Schools and Programs of Public Health (ASPPH).

Upon seeing the draft criteria in the spring, leaders of the biostatistical community—including Lance Waller, Brad Carlin, Kendra Schmid, and Xihong Lin—commented on the drafts through letters and emails to CEPH and ASPPH. In a September 2 letter (*https://goo.gl/Xwk34N*), 2016 ASA President Jessica Utts and the leaders of the Committee of Presidents of Statistical Societies, Eastern and Western North American Regions of the International Biometrics Society, Applied Public Health Statistics Section of the American Public Health Association, and Caucus of Biostatistics department chairs wrote the following:

A major aspect of these roles is to collect and interpret public health data. Rigorous interpretation requires statistical reasoning ... With the explosion in complexity and volume of data available to public health practitioners—electronic health records, wearable health sensors, crowdsourcing, and detailed geospatial information are only a few examples—the need for statistical reasoning is greater than ever before.

Waller, in an email following up the aforementioned letter shared his personal perspective, distinguishing training in epidemiology from training in biostatistics, and noting both are necessary in public health:

During my 25+ years of collaborating closely with epidemiologists, I am frequently and consistently

reminded that epidemiologists are not applied biostatisticians nor are biostatisticians applied epidemiologists. The two disciplines are certainly interdependent, but not identical, and I think this appreciation of the grey between requires some understanding of both perspectives. Critical concepts like confounding and effect modification are essential to epidemiology, but very difficult to reduce to biostatistical formulae. Similarly, interpreting confidence intervals within epidemiology requires a solid understanding of biostatistical definitions and how and when these enable epidemiologic interpretations (or not).

Also contributing to the effort, Leslie McClure wrote the following in a September 16 blog entry titled, "Biostatistics IS Public Health" (*https://goo. gl/o4SPHT*):

Despite biostatistics' differences from other public health disciplines, biostatistics is an integral part of the field. Biostatisticians are trained to help translate data into answers, through the appropriate application of statistical methods. But biostatisticians can (and do) do much more than that. Biostatisticians can help determine appropriate data collection instruments, ensure appropriate data collection methods, and assess whether outcomes are suitable for answering the guestions of interest.

In the final accreditation criteria (*https://goo.gl/7BMyYD*) for a master's in public health, biostatistics is now included in the third of 22 competencies (under the category Evidence-Based Approaches to Public Health): "Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate." Biostatistics is also listed in the lead-in paragraph to the competencies list:

These competencies are informed by the traditional public health core knowledge areas, (biostatistics, epidemiology, social and behavioral sciences, health services administration, and environmental health sciences), as well as cross-cutting and emerging public health areas. ■

SOCIAL CHATTER

What statistics book is a must read?

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Bowen Li Among many excellent statistics books, I think Casella & Berger (2002)'s *Statistical Inference* is great! Although fundamental a bit, but very detailed and clarified, thus is a must read.

Arturo Gerardo Casella & Berger. A great intro through basics of distributions theory & statistical inference.





Ryan Machtmes

Handbook of Parametric and Nonparametric Statistical Procedures Dried J. Shekin Sheskin's Handbook of Parametric and Nonparametric Procedures. Not exactly a book one "reads," but an excellent reference volume (and one unlikely to be mentioned otherwise).

Himel Mallick Adding a couple to the list: The Elements of Statistical Learning: Data Mining, Inference, and Prediction by Hastie et al. Bayesian Data Analysis by Gelman et al.



What our followers are saying online



Wojciech Grzemski Robert Abelson's *Statistics as a Principled Argument* is an eye opener ...



jguzmanphd • @jguzmanphd

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Statistical Rethinking: A Bayesian Course with Examples in R, R. McElreath. CRC PRESS, 2016 ISBN 13:978-1-4822-5344-3



Asmita Usturge-Alagi How to Lie with Statistics — simple ways of avoiding mistakes while presenting analysis

Carly Broadwell

• @carlybbroadwell

Just got The Theory That Would Not Die for Christmas — a good read so far!

the theory that would not die

how bayes' rule cracked the enigma code, hunted down russian submarines & emerged triumphant from two centuries of controversy sharon hertsch mcgrayne

Brandon Sherman Doing Bayesian Data Analysis by John Kruschke. It's a fantastic intro book that makes Bayesian statistics intuitive.

Kel Zou Leadership and Women in Statistics, Amanda L. Golbeck, Ingram Olkin, Yulia R. Gel: An inspiring book to all women statisticians & data scientists and beyond!



february 2017 amstat news 21

STATtr@k Selecting a Journal for Your Paper



Montse Fuentes is dean of the Virginia Commonwealth University College of Humanities and Sciences. She also has served as the head of the department of statistics at North Carolina State University and director for the **Research Network** for Statistical Methods for Atmospheric and Oceanic Sciences. She is an ASA Fellow.



It is important to choose a journal that represents your research and conveys it to the target audience.

We asked Montse Fuentes, editor of the Journal of the American Statistical Association Applications and Case Studies section, to answer the following questions many first-time authors have when they submit to journals.

How do I find the right journal for my paper?

It is important to choose a journal that represents well your research and conveys it to the right target audience. The journals publishing your work could determine your career advancement. You should aim [to publish in] a journal that is going to bring visibility to your work.

But, it is essential to link your subject and contribution to the mission and scope of the journal. Many rejections are simply the result of a mismatch between the submitted paper and the scope of the journal. Read papers published by the journals you are considering to determine what outlet is more suitable for your work. Ask mentors and colleagues to read your paper and offer candid feedback while recommending a journal prior to submission.

Should I always aim for a prestigious journal?

The paper needs to fit the scope of the journal. You should always aim as high as it seems reasonable for your work. Prestigious journals could have a slow review process, and you might spend a lot of time waiting for feedback. Submit it to a prestigious journal if you believe your work is of the same caliber as the work published by that journal.

I would discourage submitting papers to prestigious journals when you know they will not be published just to get feedback. It is a small community, and we do not have a large supply of reviewers. Editors want to make good use of the reviewers' time, and you want to gain credibility as an author and researcher.

Submitting Articles to a Journal

What is the purpose of the cover letter? Doesn't my abstract take care of the description?

The cover letter can help you put your work into context and justify why the journal is a good fit for your work in cases where it is not completely apparent. You also can recommend reviewers, and we always welcome that. The cover letter is particularly useful when you need to explain some circumstance about your paper, like when your paper was previously rejected and you resubmit, though I would not recommend that unless your work has significantly improved or changed.

Can I recommend reviewers to include or exclude?

You can certainly make recommendations, but you need to understand they will not necessarily be followed. Even if you ask to exclude a reviewer, that does not mean that reviewer will not be used.

Must previous rejections by other journals be disclosed?

They do not need to be disclosed. But, it is not uncommon for me to get associate editors or reviewers complaining that they had just rejected the same paper I assigned them when it was submitted to another journal. Since in most cases there are no substantial changes, they simply reject the paper again. I would recommend paying attention to the feedback and reviews, rather than just quickly submitting the paper again to another journal without any changes.

Review Process

Can I contact the editor to clarify the points in the referee's reports before revising?

You certainly can and are welcome to do that.

I recommend new authors read papers published by the journals they are interested in to better understand the journal's expectations.

What is the best way to respond to a reviewer's comments?

Doing exactly what you are being asked to do, unless there is a disagreement, in which case it is extremely important for you to justify your position. Never ignore a comment given by a reviewer.

Can rejections be appealed?

They certainly can be appealed. The process to do that is by sending a letter with a compelling argument to the editor.

What if the reviewer is incorrect? Can I complain?

We all make mistakes, so it is certainly possible a reviewer is wrong. You are entitled to express your disagreement by sending a letter to the editor.

Can I resubmit my paper?

Only if you are invited to resubmit, but not if the paper has been rejected before, unless it becomes a completely different paper and then it is treated as a new submission. In *JASA*, we have a database and we easily link papers to authors. For all submissions, we always check to see if the papers have been previously rejected.

Additional Tips

I strongly recommend new authors read papers published by the journals they are interested in to better understand the journal's expectations. It is not just about great ideas and excellent research, but also clean, clear, and good writing. The work should be submitted when it is ready for publication, making sure the story is worth telling and it has a clear focus and vision. ■

PASTIMES OF STATISTICIANS

What Do Statisticians Like to Do When They Are Not Being Statisticians?



Statistical consultant Susan Spruill's hobby is beekeeping, which she started when she moved to a farm in North Carolina.

ered a little cerebral and somewhat introverted. We tend to be the ones stating facts and figures to other guests at dinner parties. This became painfully apparent to me when, during my 50th birthday party, friends gently and humorously reminded me that I often start sentences with "well, actually," followed by some obscure statistic I came across and managed to retain. But I knew, deep down, I was more than a retainer for facts and figures. I enjoy much beyond statistics. So, I wondered, what do other statisticians like to do for fun?

I decided to post this question on the ASA Statistical Consulting Section forum. The response was overwhelming! Apparently, many statisticians have been waiting for just this question to be posed to them. I quickly realized our profession includes as many diverse leisure time interests as any other profession ... perhaps even more. But what I also discovered is that we want to let others know about these pastimes. So, with the help of ASA Communications Manager Megan Murphy, we are launching this new series: Pastimes of Statisticians. I am honored to take the first turn. I hope you enjoy it!



Statistical consultant Susan Spruill

Who are you, and what is your statistics position?

My name is Susan Spruill and I am an independent statistical consultant doing business as Applied Statistics and Consulting.

Tell us about what you like to do for fun when you are not being a statistician.

I am a beekeeper. I started keeping honeybees (*Apis mellifera*) about nine years ago. I had moved to a small farm in western North Carolina and was interested in organic farming and thought honey bees might be a nice addition. My neighbor had kept bees until the 1980s, when a Varroa mite infestation killed all her hives. She gave me her equipment: hive boxes, tools, and veil. All I needed were the bees.

I purchased three nucleuses (small starter hives), bought a book (*Beekeeping for Dummies*), and joined the local beekeeping association. The learning curve was steep.

For the next three years, I killed every bee hive I started. Then, one of the hives survived the winter and all the education started to click. Hives were growing and producing new bees and honey. I was hooked! Now I manage a small apiary of five to eight hives and I'm the secretary of our local beekeeper's association.

What drew you to this hobby, and what keeps you interested?

Being a statistician often means being indoors and at a desk for many hours a day, so I am drawn to things that get me outside. I like gardening, and I have always been fascinated by insects, especially beneficial insects. Honeybees are essential pollinator insects, so beekeeping seemed a logical step.

What I like most about keeping bees is their resourcefulness. Honeybees have a very strict colony structure that is infinitely fascinating. Understanding their natural structure and working with them to optimize it is what it means to be a beekeeper. And then there's the data! Here are some fun facts:

- One hive houses about 50,000 bees
- One bee will visit 50 to 100 flowers each trip from the hive
- Twelve bees will make about 1 teaspoon of honey in their lifetime
- More than 2 million flowers will be pollinated in the making of 1 pound of honey
- Bees are directly responsible for one-third of our food supply ■

Do you have a hobby you would like to share? If so, contact Susan Spruill at *sspruill@ appstatsconsulting. com* or Megan Murphy at *megan@ amstat.org.*

Deadlines for ASA Awards Approaching Fast

The ASA's extensive awards program recognizes statisticians who have made outstanding contributions through research, teaching, consulting, and service to the association and statistical profession. The deadlines to nominate a colleague for many of these awards occur from December to March.

Visit *www.amstat.org/awards* for more information about upcoming awards.

Call for JSM Late-Breaking Session Proposals



Photo courtesy of Eric Sampson/ASA

David Hemenway of the Harvard T.H. Chan School of Public Health gives a talk titled "Collecting Data on Gun Violence: Why Is It So Hard, and What Are We Missing?" at JSM 2016 in Chicago.

Two will be selected from proposals received by the deadline

Planning for the 2017 Joint Statistical Meetings (JSM) program started last July, and most technical sessions have already been organized. This advanced planning is required to organize such an expansive meeting as JSM, but may preclude scheduling sessions on contemporary topics of emerging interest as the year progresses. Two invited session slots have been set aside for such late-breaking topics, and any member of one of the JSM sponsoring organizations or partnering societies can propose such a session.

A late-breaking session must cover one or more technical, scientific, or policy-related topics that have arisen during the one-year period prior to JSM 2017. Proposals for late-breaking sessions should be emailed to JSM 2017 program chair, Regina Y. Liu, at *rliu@stat.rutgers.edu* with a copy to the ASA meetings department at *meetings @amstat.org* by April 14. The proposal must include the following:

• Session description—including a title, summary of statistical and scientific content, and explanation of the subject's timeliness and significance—and comments about the intended target audience

- Format of the session (e.g., a chair and four panelists, 2–3 speakers and a discussant, etc.) Names, affiliations, and contact information for the session organizer, chair, and all participants (speakers, panelists, discussants)
- A title for each presentation in the session
- Web links to relevant technical reports or news reports, if applicable

Organizers should make sure participants have agreed to participate before the proposal is submitted. The JSM participation guidelines state that a speaker can give a main presentation *and* participate in a late-breaking session at the same meeting, so previous commitment to a regular session does not preclude participation.

Two late-breaking sessions will be selected from the proposals received by the deadline (subject to approval by the ASA Committee on Meetings). Proposals will be judged on statistical and scientific quality, timeliness, significance and impact, potential audience appeal, and completeness. A description of the late-breaking sessions and other special sessions will appear in a future issue of *Amstat News*. Please submit your proposals to add exciting latebreaking sessions to the JSM 2017 program. ■

Proposals for late-breaking sessions should be emailed to JSM 2017 program chair, Regina Y. Liu, at *rliu@stat.rutgers. edu* with a copy to the ASA meetings department at *meetings@amstat.org* by April 14.

Fritz Scheuren to Give Deming Lecture



Photo courtesy of Meg Ruyle/ASA

Fritz Scheuren (in the Deming Library in Alexandria, Virginia), senior fellow and vice president in the Center for Excellence in Survey Research at NORC, has been awarded the 2017 Deming Lecture Award.

Jill Talley, ASA Public Relations Manager

The ASA has chosen Fritz Scheuren, senior fellow and vice president in the Center for Excellence in Survey Research at NORC, as the recipient of its 2017 Deming Lecture Award.

Established in 1995 and named after famed statistician and "quality management guru" W. Edwards Deming, the award not only seeks to recognize the recipient's accomplishments, but also enhances awareness among the statistical community of the scope and importance of Deming's contributions.

"From working on complex, multi-disciplinary projects related to sampling and the analysis of data from government agencies and private sector institutions, to his role as mentor and adviser to countless graduate students and young professionals, Scheuren has built an unparalleled legacy in the statistics profession," said Ron Wasserstein, executive director of the ASA. "His proven ability to solve hard, nonstandard problems along with a theoretical background and diligence in making sound statistical arguments, reflect the characteristics and spirit of the Deming Lecture, and we are thrilled to recognize him with this honor."

At NORC, Scheuren works on complex substantive tasks related to sampling and the analysis of data from government agencies and privatesector institutions. He has been involved with numerous high-profile and landmark projects such as resolving issues with Indian Trust Fund accounts at the U.S. Department of the Interior and work with the Federal Reserve—particularly the Survey of Consumer Finances—and the U.S. Census Bureau. He is currently leading impact evaluations of programs in Georgia and Lesotho and formerly advised on impact evaluations in Armenia and Vanuatu.

Prior to joining NORC, Scheuren held several positions as a senior statistical officer for a range of public and private-sector organizations, including as chief mathematical statistician at the Social Security Administration. Scheuren also serves on the statistics faculty at The George Washington University. An accomplished author, he has penned more than 450 applied and theoretical papers, presentations, monographs, and books on sampling aspects of data collection, primarily in a survey context, with an emphasis on sample design and estimation, process quality, and the handling of missing data. A fellow of the ASA and the American Association for the Advancement of Science, Scheuren served as the ASA's 100th president and chaired the ASA Section on Survey Research Methods and Social Statistics Section.

The Deming Lecture will take place at the Joint Statistical Meetings August 1 in Baltimore, Maryland. ■

MORE ONLINE

To learn more about the Deming Lecture Award, visit https:// goo.gl/e9RFR8.

CSP 2017 Award Winners Named

Sara Burns, winner of the John J. Bartko Scholarship; Jami Jackson Mulgrave, winner of the Lester R. Curtin Award; and Jinyuan Liu, winner of the Lingzi Lu Memorial Award, will receive registration and travel support to attend the ASA Conference on Statistical Practice.



John Bartko Scholarship

John Bartko scholarship winner Sara Burns earned a master's in biostatistics from Washington University in St. Louis in 2016. She is now employed by the Department of Anesthesia, Critical Care, and Pain Medicine Massachusetts General at Hospital. Her projects range from designing randomized controlled trials for new medical devices to analyzing data from objective studies that aim to reduce pain medicine prescriptions in light of the current opioid epidemic.

Burns is looking forward to attending lectures and taking a course at CSP to strengthen her R coding skills. She ultimately strives to become an expert in applying statistical techniques to answer meaningful questions in the medical field. She is passionate about improving the quality of research published in scientific articles, on which doctors base their clinical practice.



Lester Curtin Award

Jami Jackson Mulgrave earned a bachelor's degree in psychology from Columbia University and a master's degree in statistics (concentration in statistical genetics) from North Carolina State University. She is working toward a PhD, doing research on Bayesian nonparametric methods for graphical models of genetic data. She has a large set of programming and data visualization skills. Additionally, Mulgrave is involved in numerous student activities. She has been the NCSU chapter president of SACNAS and served as a science communicator for the North Carolina Museum of Natural Sciences. She is also involved in a program to introduce the STEM fields to sixthto eighth-grade students from under-represented populations. Her long-term goal is to be a professor of biostatistics.



Lingzi Lu Memorial Award

Jinyuan Liu earned an MA from the department of biostatistics and computational biology at the University of Rochester. She is currently employed as a research assistant in the VA San Diego Healthcare System in California, where she is working on two methodological projects on causal inference and social network data analysis and their applications to drug surveillance and depression. She is also working on several collaborative projects, including meta-analysis, variable selection, and intra-class correlation. Her ultimate career goal is to develop new statistical models and conduct statistical inference in complex studies in an academic environment to help improve the understanding of human illness and health.

Gertrude M. Cox Award

The Gertrude M. Cox Award Committee is seeking nominees for the 2017 Gertrude M. Cox Award.

The award, established in 2003 through a joint agreement between the Washington Statistical Society (WSS) and RTI International, annually recognizes a statistician in early to mid-career (fewer than 15 years after terminal degree) who has made significant contributions to one or more of the areas of applied statistics in which Gertrude Cox worked: survey methodology, experimental design, biostatistics, and statistical computing.

The award is presented at the WSS Annual Dinner, usually held in June, with the recipient delivering a talk on a topic of general interest to the WSS membership before the dinner.

The honoree is chosen by a six-person committee—three each from WSS and RTI. This year's committee consists of Mike Larsen (co-chair), Chris Moriarity, and Linda Young from WSS and Jill Dever, Phil Kott, and Karol Krotki (co-chair) from RTI.

Included in the award is a \$1,000 honorarium, paid travel expenses to attend the WSS Annual Dinner, and a commemorative WSS plague.

Past recipients include Sharon Lohr, Alan Zaslavsky, Tom Belin, Vance Berger, Francesca Domenici, Thomas Lumley, Jean Opsomer, Michael Elliott, Nilanjan Chatterjee, Amy Herring, Frauke Kreuter, Jerome Reiter, Jae Kwang Kim, and Bhramar Mukherjee.

Email nominations to Krotki at *kkrotki@rti.org* by February 28 with a supporting statement and CV (or link). If you previously nominated a candidate and wish that nomination to be reconsidered, update the supporting materials.

The award is in memory of Gertrude M. Cox (1900–1978). In 1945, Cox became director of the Institute of Statistics of the Consolidated University of North Carolina. In the 1950s, as head of the department of experimental statistics at North Carolina State College, she played a key role in establishing mathematical statistics and biostatistics departments at the University of North Carolina. Upon her retirement from North Carolina State University in 1960, Cox became the first head of the statistical research division at the newly founded RTI. She was a founding member of the International Biometric Society (IBS) and, in 1949, became the first woman elected into the International Statistical Institute. She served as president of both the American Statistical Association (1956) and IBS (1968-1969). In 1975, she was elected to the National Academy of Sciences.

Roger Herriot Award

Nominations are sought for the 2017 Roger Herriot Award for Innovation in Federal Statistics. The award is intended to reflect the characteristics that marked Roger Herriot's career, including dedication to the issues of measurement, improvements in the efficiency of data collection programs, and improvements and use of statistical data for policy analysis.

The award is not limited to senior members of an organization, nor is it to be considered as a culmination of a long period of service. Individuals or teams at all levels within federal statistical agencies, other government organizations, nonprofit organizations, the private sector, and the academic community may be nominated on the basis of their contributions. As innovation often requires or results from teamwork, team nominations are encouraged.

The award consists of a \$1,000 honorarium and a framed citation, which will be presented at a ceremony during the Joint Statistical Meetings in August 2017. The Washington Statistical Society may also host a seminar given by the winner on a subject of his or her choosing.

The recipient of the 2017 award will be chosen by a committee comprising representatives of the ASA Social Statistics and Government Statistics sections and the Washington Statistical Society. Herriot was associated with, and strongly supportive of, these organizations during his career.

Nominations should contain the following:

- A cover letter from the nominator that includes references to specific examples of the nominee's contributions to innovation in federal statistics. These contributions can be to methodology, procedure, organization, administration, or other areas of federal statistics and need not have been made by or while a federal employee.
- Up to six more letters of support that show the innovativeness of each contribution.
- A current vita for the nominee with contact information. For team nominations, the vitae of all team members should be included.

The committee may consider nominations made for prior years, but it encourages resubmission of those nominations with updated information. Completed packages must be received by April 1. Electronic submissions to David Banks, chair of the 2017 Roger Herriot Award Committee, at *banks@stat.duke.edu* as Word or PDF files are strongly encouraged.

Roger Herriot was the associate commissioner of statistical standards and methodology at the U.S. National Center for Education Statistics (NCES) when he died in 1994. Previously, he held several positions at the U.S. Census Bureau.

For more information, contact Banks at (919) 684-3743 or *banks@stat.duke.edu.* ■

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

AWARD	DEADLINE	NOMINATIONS	QUESTIONS
Causality in Statistics Education Award	Feb. 15, 2017	educinfo@amstat.org	educinfo@amstat.org
Harry V. Roberts Statistical Advocate of the Year Award	Feb. 15, 2017	awards@amstat.org	John Vanderploeg vanderp@comcast.net
ASA Samuel S. Wilks Memorial Medal	Feb. 15, 2017	awards@amstat.org	Sanjib Basu sanjib.ba@gmail.com
ASA Waller Distinguished Teaching Career Award	Feb. 15, 2017	awards@amstat.org	Bradley A. Hartlaub hartlaub@kenyon.edu
ASA Waller Education Award	Feb. 15, 2017	awards@amstat.org	Bradley A. Hartlaub hartlaub@kenyon.edu
ASA W. J. Youden Award in Interlaboratory Testing	Feb. 15, 2017	awards@amstat.org	Blaza Toman blaza.toman@nist.gov
ASA Statistics in Physical and Engineering Sciences Award	Feb. 20, 2017	mli@alumni.iastate.edu	Ming Li mli@alumni.iastate.edu
ASA Gertrude M. Cox Scholarship	Feb. 23, 2017	awards@amstat.org	Eloise E. Kaizar ekaizar@stat.osu.edu
ASA Edward C. Bryant Scholarship	March 1, 2017	awards@amstat.org	Pushpal Mukhopadhyay pushpal.mukhopadhyay@sas. com
ASA Excellence in Statistical Reporting Award	March 1, 2017	awards@amstat.org	Alan R. Tupek alan.tupek@gmail.com
ASA Fellows	March 1, 2017	Nominations accepted at <i>www.amstat.org</i> beginning October 1, 2017	Keith F. Rust keithrust@westat.com
ASA Mentoring Award	March 1, 2017	awards@amstat.org	Jessica M. Utts jutts@uci.edu
ASA Outstanding Statistical Application Award	March 1, 2017	awards@amstat.org	Jung-Ying Tzeng jytzeng@stat.ncsu.edu
Statistical Partnerships among Academe, Industry, and Government (SPAIG) Award	March 1, 2017	awards@amstat.org	Kelly Zou Kelly.Zou@pfizer.com or Pam McGovern Pam.McGovern@nass.usda.gov
ASA Founders Award	March 15, 2017	awards@amstat.org	Jessica M. Utts jutts@uci.edu

Rho, a full-service contract research organization (CRO), recently announced the retirement of Chief Statistical

Scientist Katherine Monti.

Monti is well known in the statistical world for her service to the American Statistical Association and participation on research teams that have made significant contributions to the health of human beings and some of their pets.

Rho co-founder and former UNC biostatistics professor Ronald Helms had the following to say:

Wow! What a career! Not surprising, I suppose, as Kathy was one of the smartest, hardest-working PhD students to go through the UNC biostat program. One is reminded of the old line, "Ginger Rogers did everything Fred Astaire did, except backwards and in high heels." Kathy not only succeeded, she used her intelligence, education, "street smarts," and charm to excel in institutions and companies with cultures that had, shall we say, "traditional attitudes" toward professional women, even one with a PhD from one of the most highly respected biostatics programs in the world. And all that while very successfully bringing up two rambunctious sons. Eighteen years ago, we were truly fortunate to have Kathy join Rho. She claims to have been drawn by the culture of Rho, a culture valuing quality, caring, teamwork, and celebration of diversity.

On the human medical research side of her career, including her work at Rho, Monti has collaborated with researchers in a wide range of fields, including chronic and acute pain, oncology, chronic and intra-operative hypertension, kidney disease, gastrointestinal disorders, Alzheimer's disease, non-Alzheimer's memory impairment, traumatic brain injury, chronic and acute respiratory diseases, AIDS, osteoarthritis, gynecology, autism, fragile X, and aesthetic indications in dermatology.

Monti achieved prominence in the statistical community for her work at the ASA. In 2007, the ASA recognized Monti's achievements by bestowing on her the title of Fellow. The ASA topped that by placing her on the Committee of Fellows, which annually selects ASA members for that honor from a pool of nominees, and subsequently topped even that by making her the chair of that committee. Additionally, in 2014, she was honored by the Boston Chapter with the Mosteller Statistician of the Year Award.

ASA members elected Monti to association positions, including member of the ASA Board of Directors, chair of the Biopharmaceutical Section, and secretary and then president of the Boston Chapter. ASA presidents appointed her to some of the association's committees, notably the Advisory Committee on Continuing Education. Always eager to attract students to statistics, Monti has organized and participated in many career-related sessions, hosted career-oriented roundtables, and contributed to STATtr@k and the Amstat News career series, "A Day in the Life of a Statistician."

Monti completed her undergraduate degree in mathematics at Oberlin College before earning her PhD in biostatistics from The University of North Carolina at Chapel Hill in 1975. She then served on the faculty of the University of Missouri-St. Louis before switching to industry, supporting veterinary and food science

research at Ralston-Purina. While there, Monti's work in veterinary medicine included research on feline reproduction and canine restricted feeding. Ralston's research was the first to demonstrate that canine hip dysplasia can be prevented or ameliorated in large breeds by either restricting food intake or, during the puppy stage, feeding a diet with a specially calibrated balance of anions. One of Monti's favorite projects, which produced many humorous anecdotes, was a project that optimized the Twinkie recipe for product "springiness." She also wrote and distributed the highly popular quarterly "newsletter," Statistically Speaking, in which she used humor and her pedagogical skills to explain one basic statistical topic per issue to more than 150 scientists in the Ralston research community.

Monti later moved to Boston, where she first worked on the development of new medical devices and diagnostic tests (including the first prostate-specific antigen test) at Ciba Corning Diagnostics Corp., and then helped develop new human drugs at Astra Pharmaceuticals. In 1998, she became director of Rho's Massachusetts office. Monti relocated to the Chicago area in 2011, serving Rho as a chief statistical scientist at the time of her retirement.

Monti has a wide variety of activities planned for retirement, including marrying her fiancé John (date: May 2017), spending time with their combined five children and six (soon to be seven) grandchildren in four states, traveling, learning Spanish, expanding information on the family tree, attacking her list of "to be read" books, and exercising more frequently. She and John are also investigating several volunteering opportunities. **Arthur Benjamin**, the Smallwood Family Professor of Mathematics at Harvey Mudd College, was honored recently with the 2017 JPBM Communications Award for Public Outreach during the Joint Mathematics Meetings in Atlanta, Georgia.

Benjamin is honored for his books aimed at general audiences, TED talks, popular video courses from *The Great Courses*, and "mathemagics" performances. His work demonstrates "his ability and commitment to share the joy of mathematics, and [he] excites and engages audiences at all levels," the prize citation says.

As both a mathematician and a magician, Benjamin performs a mixture of math and magic to audiences all over the world, including the Magic Castle in Hollywood. He has demonstrated and explained his calculating talents in his book and DVD course, *Secrets of Mental Math*, and on numerous television programs. He has been featured in many national newspapers and magazines and has given three TED talks, which have been viewed more than 12 million times. Princeton Review recently profiled him in the book *The Best 300 Professors*, and *Reader's Digest* calls him "America's Best Math Whiz."

Benjamin earned his bachelor's degree in applied mathematics from Carnegie Mellon University and his doctorate in mathematical sciences from The Johns Hopkins University. Since 1989, he has taught at Harvey Mudd College. In 2000, he received the Haimo Award for Distinguished Teaching from the Mathematical Association of America.

The Joint Policy Board for Mathematics (JPBM) represents the American Mathematical Society, American Statistical Association, Mathematical Association of America, the Society for Industrial and Applied Mathematics. Presented annually, the JPBM Communications Award recognizes outstanding achievement in communicating about mathematics to nonmathematicians.

Find out more about the award at *https://goo.gl/ EJ6eo6.* ■

ASA

The ASA now offers two levels of accreditation: Accredited Professional Statistician (PStat®) and Graduate Statistician (GStat).

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"Most of my work as a **practicing statistician** over the last 25 years has dealt with highly sensitive and confidential data. The **pstot**[®] accreditation now puts an official stamp that indicates solid ethical conduct was followed on the many mathematical and statistical models we have developed. "

—Nina Kajiji

PStat[®], Phd, MS, MBA, Adjunct Professor, University of Rhode Island and Principal of The NKD Group, Inc.



www.amstat.org/accreditation

section • chapter • committee news



ASA President Barry Nussbaum speaks during a mini-conference at the University of Alabama at Birmingham. The event was hosted by the Alabama Chapter of the ASA.

Alabama Chapter Hosts Mini-Conference

The Alabama Chapter hosted a mini-conference November 11 at the University of Alabama at Birmingham (UAB). Approximately 50 current and prospective chapter members attended.

The participants came from Alabama and Mississippi, and were primarily affiliated with UAB, the University of Alabama (Tuscaloosa), Mississippi State University, and the University of Mississippi.

The keynote speaker was ASA President Barry Nussbaum, who gave a talk, titled "It's Not What We Say; It's Not What They Heard; It's What They Say They Heard." His primary premise was that even when we as statisticians carefully present our results and conclusions to decision makers, the message the recipients (decision makers) receive may not be what we thought we delivered or what we thought they heard. He illustrated what one should and should not do through examples used in court cases, executive documents, and material presented for the president of the United States. Nussbaum's talk, given with a mix of seriousness and humor, was well received. Student presenters and their topics included the following:

- Sheida Raihi, Mississippi State University, "Measuring and Testing Central Symmetry in Bivariate Settings"
- Yuliang Liu, UAB, "Comparison of Single Event, Competing Risk, and Frailty-Based Models for Competing Risks Data"
- Curry Hilton, University of Alabama, "Statistical Process Measurement (SPM) R Package"
- Yan Li, UAB, "Sample Size Re-Estimation for Confirmatory Multi-Arm Trials with Normal Outcomes"

The chapter also held a business meeting, during which members discussed the governing structure of the chapter—particularly writing an up-todate chapter constitution—proposed activities for 2017—including another mini-conference—and brainstormed ways to promote the chapter and participation in chapter activities. ■

San Antonio Chapter Mentors STEM Students



The San Antonio Chapter worked with the University of Texas at San Antonio ASA student chapter to support the Saint Matthews Catholic School STEM Club in December. The students were in grades 6–8.







The San Antonio Chapter, in collaboration with the department of management science and statistics and ASA student chapter at The University of Texas at San Antonio, promoted statistical literacy and supported the Saint Matthews Catholic School STEM club in December.

The STEM club students (grades 6–8), along with their parents, were paired with statistics mentors to review their research project objectives and protocols and analyze the data. They learned about the fundamental statistical concepts in understanding any scientific phenomenon, as well as how to analyze quantitative data using proper statistical methods and present/ interpret the results with statistical significance.

The STEM club students will be competing in the upcoming Alamo Regional Science Fair. ■
section news

Quality and Productivity

The ASA Q&P Section's 2017 Quality and Productivity Research Conference will be hosted by the University of Connecticut (UConn) and held in Storrs June 13–15. The theme of this year's conference is "Quality and Statistics: A Path to Better Life."

The goal of the conference is to stimulate interdisciplinary research among statisticians, scientists, and engineers in quality and productivity, industrial needs, and the physical engineering and health sciences. Statistical issues and research approaches drawn from collaborative research will be highlighted and a poster session will highlight graduate and undergraduate student research on these topics.

The conference will honor Shelemyahu Zacks of SUNY Binghamton.

Conference registration includes a tour and reception at UConn's TechPark (*http://innovation. uconn.edu/tech-park*). For an additional registration fee, a short course, titled "*Computational Bayesian Methods for Big Data Problems*," will be given June 12 by Steve Scott, director of statistics research at Google.

The conference website, *http://qprc2017.org*, contains the program, registration, student scholarship, and hotel information. It also provides links to previous QPRC conferences. The deadline for submitting a contributed paper is April 1.

An important objective of the QPRC is to encourage student participation. Scholarships for participation in the conference include the Mary G. and Joseph Natrella Scholarships and QPRC student scholarships. Additionally, QPRC 2017 received funding from the National Science Foundation for travel awards for graduate and undergraduate students from U.S. academic institutions who plan to present their research at the conference. A special effort will be made to support women and participants from under-represented groups.

For further information, contact Nalini Ravishanker at *nalini. ravishanker@uconn.edu* or Haim Bar at *haim.bar@uconn.edu*.

Biometrics

Want to get more involved in JSM? Consider volunteering to chair a session. Chairing a session is an important responsibility and a great way to meet your colleagues. If you are interested, contact our section's 2017 program chair, Barbara Engelhardt, at *bee@princeton.edu*.

Physical and Engineering Sciences

Greg Steeno, FTC Program Representative, and Greg Piepel, SPES Industrial Speakers Program Chair

The 60th Fall Technical Conference (FTC), cosponsored by the ASA and American Society for Quality (ASQ), was held October 6–7 in Minneapolis, Minnesota. The conference was well attended, with sessions covering a range of topics in statistics and quality and providing ample opportunity to network with colleagues and peers.

The event began the day before, with four day-long short courses. Educational opportunities included "Methods for Designing and Analyzing Mixture Experiments," "Beyond Split-Plot Design and Analysis," "Analysis of Big Data Using R," and "Design and Analysis of Experiments with R."

The conference opened with a presentation by Lynne Hare, titled "Hahn Space." The conference program invited sessions encompassed a variety of interesting and relevant topics. Selected presentations include the following:

- Bayesian and Statistical Engineering (ASA-SPES)
- Dimensional Data Analysis (ASQ-STAT)
- Statistical Methods for Data Science (ASA-Q&P)
- Case Studies: There Are No Answers in the Back of the Book (ASQ-CPID)

In addition, the *Technometrics* invited session focused on reliability, the *Journal of Quality Technology* session theme covered CUSUM charts, and *Quality Engineering* showcased statisticians as innovation leaders.

Contributed sessions topics ranged from advances in DOE/ RSM to sequential experimentation to process control to case studies of industrial applications.

Joanne Wendelberger from the Los Alamos National Laboratory gave the W. J. Youden Memorial Address, titled "Understanding Today's Complex World," while 2016 ASA President Jessica Utts gave a lunchtime talk, "Communicating the Value of What Statisticians Do." The conference concluded with a SPES-sponsored wine and cheese reception and special session, titled "Leadership Perspectives: A Multifaceted Panel Discussion."

SPES is accepting papers for the 2017 Fall Technical Conference, to be held October 5–6 in Philadelphia. The conference theme is "Statistics: Powering a Revolution in Quality Improvement," and the abstract submission deadline is February 28.

Further information about the 2017 conference can be found at *http://rube.asq.org/ cpi/2016/10/2017-ftc-call-forpapers.pdf*, and questions can be directed to Greg Steeno at *gregory.s.steeno@pfizer.com*.

SPES Marquardt Memorial Speakers Program

The SPES Marquardt Memorial Speakers Program facilitates visits of experienced applied statisticians to colleges and universities to give a seminar and meet with students and professors. SPES reimburses the host institution up to \$1,000 (previously \$500) to cover the expenses of the speaker's visit. Speakers provide information to students about (1) what an applied statistician does; (2) how applied statisticians solve problems in science, engineering, technology, and business; and (3) what nontechnical skills are required to be successful as an applied statistician.

The Marquardt Industrial Speakers Program was established by SPES in the early 1990s to encourage careers in applied statistics. If you are an institution interested in having a speaker or a SPES member interested in being on the speakers list (or working directly with a local institution to set up a visit), contact Greg Piepel at greg.piepel@pnnl.gov or (509) 375-6911. ■

Check out upcoming ASA webinars.



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calendar of events

2017 February



*23–25—2017 American Statistical Association Conference on Statistical Practice, Jacksonville, Florida

For more information, visit ww2. amstat.org/meetings/csp/2017 or contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; meetings@ amstat.org.

March

»16—Quantum Computing and Its Applications in Drug Development, Washington, DC

For details, visit *https://goo.gl/ OD2nEs* or contact Wanying Zhao, Rome Hall, 7th Floor, 801 22nd St. NW, Washington, DC 20052; *wzhao14@qwu.edu.*



24–25—The Conference of Texas Statisticians (COTS) 2017, Dallas, Texas

For details, visit *https://goo.gl/ MRYgJe* or contact Sheila Crain, Department of Statistical Science, Southern Methodist University, 3225 Daniel Ave., Dallas, TX 75275-0332; (214) 768-2441; *scrain@smu.edu*.

April

5–6—6th Annual Survival Analysis for Junior Researchers Conference, Leicester, United Kingdom

For more information, visit tinyurl.com/safjr2017 or contact Sarwar Islam, Department of Health Sciences, College of Medicine, Biological Sciences and Psychology, University of Leicester, Centre for Medicine, University Road, Leicester, International LE1 7RH, England, UK; +441162297255; safjr2017@le.ac.uk.

8–9—5th IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence, Ahmedabad, India

For details, visit *https://goo.gl/ B2M127* or contact Arnab Laha, Indian Institute of Management Ahmedabad, Ahmedabad, International 380015, India; 917966324947; *arnab@iima.ac.in.*

*19—The University of Pennsylvania 10th Annual Conference on Statistical Issues in Clinical Trials: Current Issues Regarding Data and Safety Monitoring Committees in Clinical Trials, Philadelphia, Pennsylvania

For more information, visit *https://goo.gl/xWHq7Y* or contact Christy Hullings, 423 Guardian Drive, Suite 615, Philadelphia, PA 19104; (215) 573-2728; *hchristy@mail. med.upenn.edu*. The following events are the latest additions to the ASA's online calendar of events. Announcements are accepted from education and not-forprofit organizations only. To view the complete list of statistics meetings and workshops, visit *www. amstat.org/dateline.*

* Indicates events sponsored by the ASA or one of its sections, chapters, or committees

» Indicates events posted since the previous issue

»20—FFC/2017: The 22nd Federal Forecasters Conference, Washington, DC

For more information, visit https://goo. gl/JwYfrO or contact Jeff Busse, USGS National Center, MS987, Reston, VA 20192; (703) 648-4914; jbusse@ usgs.gov.

20–22—AISTATS 2017, Fort Lauderdale, Florida

For more information, visit *aistats.* org or contact Aaditya Ramdas, 1835 Cedar St., Apt B, Berkeley, CA 94703; (773) 234-3277; *aramdas@ berkeley.edu*.

27–29—2017 International Conference on Data Mining, Houston, Texas

For more information, visit *https://goo.gl/Kn1xpl* or contact Srinivasan Parthasarathy, 3600 Market St., Philadelphia, PA 19104; *meetings@siam.org.*

30–5/5—Statistical Challenges in Single-Cell Biology, Ascona, Switzerland

For more information, visit https://goo.gl/M&vFY4 or contact Peter Bühlmann, Rämistrasse 101, Zürich, International 8092, Switzerland; 0041446323438; SfS-sekretariat@stat. math.ethz.ch. Center for Clinical Epidemiology & Biostatistics (CCEB)



10th Annual Clinical Trials Conference

REGISTRATION NOW OPEN

10th Annual University of Pennsylvania Conference on Statistical Issues in Clinical Trials

TOPIC

Current Issues Regarding Data and Safety Monitoring Committees in Clinical Trials

When: Wednesday, April 19, 2017 Time: 8:00 A.M. to 5:00 P.M. Where: University of Pennsylvania, Philadelphia

For further information please visit: <u>http://www.med.upenn.edu/cceb/biostat/ClinTrials17_index.shtml</u>

Faculty & Provisional Talks:

Thomas Fleming, PhD, University of Washington Emerging Challenges in the Practice of Clinical Trial Data Monitoring Committees

David DeMets, PhD, University of Wisconsin The Independent Statistician Model: How Well is it Working?

Pamela Shaw, PhD, University of Pennsylvania Choosing Monitoring Boundaries: Balancing Risks and Benefits

James Neaton, PhD, University of Minnesota How to Construct an Optimal Interim Report: What the DMC Does and Doesn't Need to Know

Panelists:

Barry Davis, MD, PhD, University of Texas Kay Dickersin, PhD, Johns Hopkins University Dennis Dixon, PhD, NIAID (retired) Frederick Ferris, MD, NEI, NIH Judith Goldberg, ScD, New York University David Kerr, MS, Axio Research Stephen Kimmel, MD, MSCE, University of Pennsylvania John Lachin, ScD, George Washington University Maureen Maguire, PhD, University of Pennsylvania Corsee Sanders, PhD, Genentech Steve Snapinn, PhD, Amgen Janet Wittes, PhD, Statistics Collaborative, Inc.

May

»5–7—International Conference on Statistics and Econometrics, Mahdia, Tunisia

For more information, visit *www. cisem2017.com* or contact Houda Ben Mhenni, Tunis, Tunisia, International 2087, Tunisia; +216 50 719 680; *houdabenmhenni@ gmail.com*.

5–7—The 5th Workshop on Biostatistics and Bioinformatics, Atlanta, Georgia

For details, visit *https://goo.gl/ p1WRlq* or contact Yichuan Zhao, 30 Pryor St., Department of Mathematics and Statistics, Atlanta, GA 30303; (404) 413-6446; *yichuan@gsu.edu.*

15–17—ARS'17 International Workshop, Naples, Italy

For details, visit https://goo. gl/a2qWz1 or contact Maria Rosaria D'Esposito, Via Giovanni Paolo II, Fisciano (SA), International I-84084, Italy; (+39) 089962206; mdesposi@unisa.it.



June

»5–7—14th Graybill Conference on Statistical Genetics and Genomics, Fort Collins, Colorado

For details, visit graybill.wolpe2. natsci.colostate.edu or contact Wen Zhou, 208 Statistical Building, Colorado State University, Fort Collins, CO 80523; (970) 491-1306; riczw@stat.colostate.edu.



9–10—Conference in Celebration of Jeremy Taylor's 60th Birthday, Ann Arbor, Michigan

For more information, visit sph. umich.edu/biostat/events/ jeremy-taylor-event.html or contact Menggang Yu, 600 Highland Ave., Madison, WI 53792; (608) 261-1988; meyu@biostat.wisc.edu.

»11–23—Summer Institute in Social-Science Genomics, Santa Barbara, California

For details, visit www.russellsage. org/summer-institutesocial-science-genomics or contact Dan Benjamin, 312 Dauterive Hall, Los Angeles, CA 90089; (617) 548-8948; RSF. Genomics. School@ gmail.com.

13–15—2017 Quality and Productivity Research Conference, Storrs, Connecticut

For details, visit *qprc2017.org* or contact Nalini Ravishanker, AUST 333, 215 Glenbrook Road, Storrs, CT 06269; (860) 486-4760; *nalini. ravishanker@uconn.edu.*

NIH-Funded Short Course Planned on Causal Inference in Behavioral Obesity Research



The University of Alabama will host an NIH-funded short course, titled "Strengthening Causal Inference in Behavioral Obesity Research," at the University of Alabama at Birmingham, July 24–28.

Identifying causal relations among variables is fundamental to science. Obesity is a major problem for which much progress in understanding, treatment, and prevention remains to be made. Understanding which social and behavioral factors cause variations in adiposity and which other factors cause variations is vital to producing, evaluating, and selecting intervention and prevention strategies.

The nine course modules are designed to provide rigorous exposure to the fundamental principles underlying an array of techniques. In addition, through guided discussion using real examples in obesity research, participants will gain experience in applying the principles and techniques.

Limited travel scholarships are available to young investigators. The deadline for applications is March 31.

For details about the course, visit *https://goo.gl/PSbfml*. Apply online at *https://goo.gl/1pwTyv*.

»18–7/1—Summer Institute in Computational Social Science, Princeton, New Jersey

For details, visit *www.russellsage.org/ summer-institute-computationalsocial-science* or contact Matt Salganik, 145 Wallace Hall, Princeton, NJ 08544; (609) 258-8867; *rsfcompsocsci@qmail.com.*

20–23—The 10th International Conference on Multiple Comparison Procedures, Riverside, California

For details, visit *www.mcpconference.org* or contact Xinping Cui, 1337 Olmsted Hall, University of California at Riverside, Riverside, CA 92521; (951) 827-2563; *xinping.cui@ ucr.edu*.

July

*3–7—ICORS 2017, Wollongong, Australia

For more information, visit *niasra. uow.edu.au/icors2017/index.html* or contact Anica Damcevski, NIASRA, University of Wollongong, Wollongong, International 2522, Australia; 0061-2-4221-5435; *icors2017@uow.edu.au.*

2–7—IWSM 2017, Groningen, The Netherlands

For more information, visit *iwsm2017.webhosting.rug.nl* or contact Marco Gzegorczyk, Nijenborgh 9, Groningen, International 9747 AG, Netherlands; +31503633985; *m.a.grzegorczyk@rug.nl.*

9–13—38th Annual Conference of the International Society for Clinical Biostatistics, Vigo, Spain

For details, visit *jacobo.webs.uvigo.es/ Flyer_ISCB38.pdf* or contact Jacobo de Uña Álvarez, University of Vigo, Department of Statistics and OR, Vigo, International 36310, Spain; 986812492; *jacobo@uvigo.es*.



»12–14—Data Science, Statistics, and Visualisation (DSSV 2017), Lisbon, Portugal

For details, visit *iasc-isi.org/ dssv2017* or contact Peter Filzmoser, Vienna University of Technology, Vienna, International 1040, Austria; +43 1 58801 10560; *P.Filzmoser@tuwien.ac.at.*



*29–8/3—2017 Joint Statistical Meetings, Baltimore, Maryland

For more information, visit *ww2. amstat.org/meetings/jsm/2017* or contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *meetings@ amstat.org.*

August

»8–12—XXVII International Symposium on Statistics, Medellín, Colombia



For more information, visit *simposio estadistica. unal.edu.co* or contact Carlos Eduardo Alonso

Malaver, Calle 44 No. 45-67, Bogotá, International 111321, Colombia; 57-1 3165327; *simestadi_ fcbog@unal.edu.co*.

12–14—Second Workshop on Higher-Order Asymptotics and Post-Selection Inference (WHOA-PSI)^{2}, St. Louis, Missouri

For more information, visit www. math.wustl.edu/~kuffner/WHOA-PSI-2.html or contact Todd Kuffner, 1 Brookings Dr., Campus Box 1146, St. Louis, MO 63130; kuffner@wustl.edu.





28–9/1—CEN-ISBS Vienna 2017 Joint Conference on Biometrics & Biopharmaceutical Statistics, Vienna, Austria

For details, visit *www.cenisbs2017. org* or contact Alexandra Seppi, Mariannengasse 32, Vienna, International 1090, Austria; *cenisbs2017@aimgroup.eu.*

September

»21–24—Mountain Village Science Series (MOVISS 2017), Vorau, Austria

For details, visit *www. moviss.eu* or contact Peter Filzmoser, Wiedner Hauptstr. 8-10, Vienna, International 1040, Austria; +43 1 58801 10560; *P.Filzmoser@tuwien. ac.at.*

*25–27—2017 ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Washington, DC

For more information, visit *https://goo.gl/TJvP6S* or contact ASA Meetings, 732 North Washington St., Alexandria, VA 22314; (703) 684-1221, *meetings@amstat.org*.



December

»*3–8—73rd Annual Deming Conference on Applied Statistics, Atlantic City, New Jersey

For details, visit *www.deming conference.com* or contact Walter Young, 16 Harrow Circle, Wayne, PA 19087; (415) 819-8884; *demingchair@gmail.com.*

2018

January



»*10–12—12th International Conference on Health Policy Statistics, Charleston, South Carolina

For more information, visit *ww2. amstat.org/meetings/ichps/2018* or contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *meetings@ amstat.org.*

July

»16–20—33rd International Workshop on Statistical Modelling, Bristol, United Kingdom

For more information, visit *www.* statmod.org/society.htm or contact Simon Wood, School of Mathematics, Bristol, International BA2 6BS, UK; simon.wood@bath.edu.

»*28–8/2—2018 Joint Statistical Meetings, Vancouver, Canada

For more information, contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *meetings@amstat.org*. 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.

Alabama

■ It is with great enthusiasm that the University of Alabama at Birmingham (UAB) School of Public Health is conducting a national search for an innovative and accomplished leader for the position of chair of the department of biostatistics. The complete job description is available online at *https://* goo.gl/ChebY3. Questions about the position may be directed to the search committee chair, Dr. Charles Katholi (ckatholi@uab.edu). EOE.

California

■ Assistant professor of environmental Statistics, the College of Natural and Agricultural Sciences at the University of California, Riverside is recruiting for a 9-month, tenure-track assistant professor in the field of environmental statistics. A PhD degree in biology, earth science, environmental science, statistics, or related fields is required. Apply online at: *https://goo.gl/7wbyyM*. EEO/AA/ADA/vets employer.

Florida

University of Florida is recruiting a clinical assistant, associate or full professor as program director of department's MS online program, teach in MS and PhD biostatistics programs and support concentration in biostatistics as part of masters of public health program. Qualifications include doctoral degree in biostatistics or related discipline. Successful candidate must have excellence in teaching and mentoring. Apply at https://goo.gl/ *i9iq8v.* The University of Florida is an equal opportunity institution dedicated to building a broadly diverse and inclusive faculty and staff. Hiring is contingent upon eligibility to work in the US. Searches are conducted in accordance with Florida's Sunshine Law.

Illinois

Southern Illinois University Edwardsville, a comprehensive state university 20 miles from St. Louis, invites applicants with PhD in statistics or mathematics for a tenure-track

assistant professor position beginning August 2017. For those with PhD in mathematics, we require concentration in statistics. We seek candidates committed to teaching and capacity to perform research. Review of applications will begin December 20, 2016. For more information, visit https://goo. gl/6qpLfm. As an affirmative action employer, SIUE offers equal employment opportunity without regard to race, color, creed or religion, age, sex, national origin, sexual orientation, or disability. SIUE is a state university benefits under state sponsored plans may not be available to holders of F1 or J1 visas.

Indiana

Faculty positions (rank commensurate with experience/qualifications), department of biostatistics/Indiana University Schools of Medicine and Fairbanks School of Public Health/ Indianapolis. Duties: statistical research, teaching, collaborative research. PhD in biostatistics, statistics or related field, excellent communication skills required; practical experience preferred. Competitive salary/excellent benefits. Submit CV, research/teaching statements, 3 references: to biosfsrh@iupui.edu or Search Committee, Biostatistics, HS3000, 410 W. Tenth Street, Indianapolis, IN 46202-3012. Indiana University is an EEO/AA employer, M/F/D/V.

lowa

■ Des Moines University is currently accepting applications for the NIH-funded Research Associate and Programmer position. This full-time position supports research activities under the direction of the principal investigator in the multidisciplinary field of nutrition, epigenetics, epidemiology, and cardiovascular disease in the human population. For more details or to apply, visit *www.dmu.edu/ employment* EOE.



THE UNIVERSITY OF TEXAS AT DALLAS School of Natural Sciences and Mathematics

DEPARTMENT OF MATHEMATICAL SCIENCES

TENURE-TRACK POSITIONS IN STATISTICS AND MATHEMATICS

The Department of Mathematical Sciences within the School of Natural Sciences and Mathematics at The University of Texas at Dallas invites applications for up to four tenure-track faculty positions at the Assistant level in the following general areas:

- Statistics (up to two positions).
- · Mathematics (up to two positions) with a strong preference for less represented or unrepresented areas of Mathematics within the Department.

The University of Texas at Dallas is a rapidly growing University with ambitious plans to advance in education and research. The Department of Mathematical Sciences has active research programs in several areas of Mathematics and Statistics. It has 29 tenured/tenure-track faculty, and offers the following degree programs: BA, BS, MS and PhD in Mathematics; MS and PhD in Statistics; BS and MS in Actuarial Science; MS in Bioinformatics and Computational Biology; and the Graduate Certificate in Data Science.

Candidates should have a PhD in Mathematics. Statistics or a closely related field, and a strong commitment to excellence in research and teaching. To apply, candidates should submit a letter of interest, a current curriculum vitae with a complete publication record, a detailed statement of research interests, a statement of teaching philosophy, unofficial graduate transcripts, and at least three reference letters via the online application form available at http://jobs.utdallas.edu/ postings/6837.

Evaluation of applications will begin on November 15, 2016, and will continue until the positions are filled. For more information, contact Dr. Ali Hooshyar, Chair of the Search Committee, by email at Ali. Hooshyar@utdallas.edu.

The University of Texas at Dallas is an Equal Opportunity/Equal Access/Affirmative Action Employer committed to achieving a diverse and inclusive community.

The Division of Biostatistics in the Department of Preventive Medicine at the University of Southern California (USC) is recruiting to fill a tenure-track position at the level of Assistant or Associate Professor. We seek an accomplished biostatistician with an outstanding academic record and an innovative research program to become part of an active and growing research group. We seek someone with the ability, desire, and flexibility to develop novel statistical methods spanning a wide range of topics in the ever-changing research landscape. Examples of current projects include a Program Project to develop novel analytical approaches and tools for integrated genomics analysis, and a separate research program investigating environmental influences on child health, including life course trajectories, exposure windows in a multi-pollutant framework, and integrated analysis of "omic" data. Central to the mission of the Division is long-term collaborations with other research groups for application and translation of novel methods to real data. The Department of Preventive Medicine at the Keck School of Medicine of USC consistently ranks as the top funded public health related department within a US medical school. The Department also has an active graduate and undergraduate educational mission and the successful candidate will have the opportunity to participate in teaching activities.

Applicants should submit a curriculum vitae, a brief summary of research accomplishments and future goals, and contact information for three references to:

> David Conti, Ph.D. Professor **Division of Biostatistics** Department of Preventive Medicine Keck School of Medicine of USC University of Southern California 2001 N. Soto Street. 202S Los Angeles, CA 90089 Office 323-442-3140 Email: dconti@usc.edu

The University of Southern California (USC), founded in 1880, is the largest private employer in the City of Los Angeles. As an employee of USC, you will be a part of a world-class research university and a member of the "Trojan Family," which is comprised of the faculty, students and staff that make the university what it is. The University of Southern California strongly values diversity and is committed to equal opportunity in employment. Women and men, and members of all racial and ethnic groups, people with disabilities, and veterans are encouraged to apply.

Maryland

GLOTECH, Inc. is searching for a biostatistician to work in a collaborative team environment on a contract with the National Institute of Child Health and Human Development (NICHD). For a detailed job description and further information please visit us at www.glotech.net. Email: careers@glotech.net. GLOTECH, Inc. is proud to be an equal opportunity employer M/F/D/V.

Massachusetts

Chair, department of biostatistics and computational biology, Dana-Farber Cancer Institute. Professor of biostatistics, Harvard T.H. Chan School of Public Health. DFCI and HCSPH seek a visionary leader and pre-eminent scientist to serve as chair of the department of biostatistics and computational biology and professor of biostatistics. Please submit letter of application, statement of research interests, curriculum vitae, and sample publications to *https://goo.gl/OU1LI2*. Apply Here: https://goo.gl/zAlVFe. EOE.

Dana-Farber's department of biostatistics and computational biology is the home of the ECOG-ACRIN Cancer Research Group's Boston Biostatistics Center. ECOG-ACRIN is part of the NCI National Clinical Trials Network (NCTN), and has been conducting collaborative clinical trials since 1955. We are looking for an assistant director for operations to guide and manage all operational aspects of the center. Apply to: danielle_brown@ dfci.harvard.edu. EOE.

Michigan

Two open-rank tenure-track/tenured positions at Michigan State University in statistics and probability department, one jointly with computational mathematics, science and engineering department, starting fall 2017. Posting numbers: #4320, #4292. Full advertisement at www.stt.msu.edu/jobs.

MSU is AA/EO employer, committed to excellence through diversity, encourages applications of women, persons of color, veterans, persons with disabilities; endeavors to facilitate employment assistance to candidates' spouses or partners.

Minnesota

Assistant/associate professor of statistics, tenure-track, St. Cloud State University department of mathematics and statistics. Cover letter, CV, evidence of effective teaching, contact information for three references, copies of transcripts. Application review begins January 15, 2017; position is open until filled. Only complete applications will be considered. Full details and to apply, visit *https://goo. gl/EUAfB0.* EOE.

New York

■ Search for chair of biostatistics the School of Public Health and Health Professions, State University of New York at Buffalo, seeks a chair of biostatistics. Must have a strong record of excellence in academic leadership, statistical research, including peer-reviewed, extramurally-funded research. PhD in biostatistics or related discipline and a record consistent with appointment at the rank of full professor with tenure. Please apply at *https://goo.gl/VS2dbr.* University of Buffalo is an EOE.

Memorial Sloan-Kettering Cancer Center (New York) has a faculty opening for a doctoral-level biostatistician with an interest in independent and collaborative research in important problems in cancer to join an existing group of 35 biostatisticians (20 faculty and 15 research staff; *www.mskcc.org/biostat*). Send CV and contact information for three referees to *wongk1@mskcc.org*. MSKCC is an Equal Opportunity Employer.

North Carolina

■ The Department of Biostatistical Sciences (DBS), Wake Forest School of Medicine, Winston-Salem, NC, invites applications for tenure-track assistant or associate professor positions. A vibrant unit with 24 faculty, DBS has an extramural funding record including geriatrics, cardiovascular disease, diabetes, women's health, population genetics, and cancer control. PhD in biostatistics, statistics,

PROFESSOR OF PRACTICE (MASTER'S PROGRAM ADMINISTRATOR) POSITION, DUKE UNIVERSITY

The Department of Statistical Science invites applications for an open rank position in the Professor of the Practice of Statistical Science track to begin in Fall 2017. This is a term renewable position. The appointee will serve as the full-time Master's Program Administrator (MPA) in the department for the Master's in Statistical Science (MSS) program. The MSS, launched in 2014 and already successful and visible, is a 2-year degree that provides a modern, comprehensive education in statistical theory, methods and computation, brings students into challenging, real-world research areas, and prepares students for positions in industry, government and other sectors as well as for PhD programs. Roughly half of the graduating MSS students move to R&D in industry, and about half to PhD programs. In concert with the graduate faculty leadership, the Master's Program Administrator will build on the existing foundation of the program to extend and develop partnerships in industry, government, non-profit, and other sectors, expanding internships and post-graduation job opportunities, as well collaborate with departmental faculty on aspects of the MSS administration and curriculum, and contribute to teaching and mentoring.

Full details of the department and the MSS program can be found at www.stat.duke.edu

Preference will be given to candidates with post-PhD experience in R&D in relevant areas, track records in statistical research and education, and a strong interest in program development and administration with relevant experience in leadership and mentoring. To apply, submit a letter, curriculum vitae, personal statement of research and teaching and names/letters from three references via *https://academicjobsonline.org/ajo/jobs/8716*.

Enquiries can be emailed to *mpa-search@stat.duke.edu*. The application pool will remain open until the position is filled; screening will begin on February 1, 2017.

Duke University, located in Durham NC, is an Affirmative Action/Equal Opportunity Employer committed to providing employment opportunity without regard to an individual's age, color, disability, genetic information, gender, gender identity, national origin, race, religion, sexual orientation, or veteran status. Applications from women and minorities are strongly encouraged. Individuals in dual career couples are encouraged to visit the website on Duke's Advantages for Faculty, *http://provost.duke.edu/faculty/partner/*, for information on opportunities for dual career couples in the area and how the university can help.



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We are currently recruiting for the following positions:

Senior Survey Sampling Statistician—International Surveys Westat is seeking a senior survey sampling statistician for work on international surveys in developing nations. This position requires a master's degree in statistics or survey research coupled with seven (7) or more years in sample survey design, or a PhD in statistics or survey research and five (5) or more years in sample survey design. Candidates would benefit from knowing SAS, R, and other statistical software packages although candidates are not required to do programming.

Senior Manager, Statistical Computing Unit This position requires candidates to have a strong statistical or other quantitative background and at minimum a master's degree in computer science, statistics, math, physics, or a related data science coupled with at least ten (10) years of experience in statistical or other data-intensive computing. Five (5) years of supervisory experience is also required.

Senior Survey Sampling Statistician This position requires a master's degree in survey sampling, statistics, survey research, or a related field with twelve (12) or more years in sample survey work or a PhD in survey sampling, statistics, survey research, or a related field and ten (10) or more years in sample survey work. Candidates would benefit from knowing SAS, R and other statistical software packages although candidates are not required to do programming.

Biostatistician Westat is seeking a biostatistician or statistician with experience analyzing health data. A master's degree in biostatistics or statistics and five (5) years of experience or a PhD in biostatistics or statistics is required.

Senior Biostatistician This position requires a master's degree in biostatistics or statistics and ten (10) years of experience, or a PhD in biostatistics or statistics and five (5) years of experience. Experience leading research teams, and knowledge of SAS or R is also required.

Westat is an Equal Opportunity Employer and does not discriminate on the basis of race, creed, color, religion, sex, age, national origin, veteran status, disability, marital status, sexual orientation, citizen status, genetic information, gender identity, or any other protected status under applicable law. To apply, go to **www.westat.com/careers**.

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University of California San Francisco

Division of Biostatistics Department of Epidemiology and Biostatistics

The Department of Epidemiology and Biostatistics, University of California, San Francisco (UCSF) invites applications for full-time faculty positions at any rank, in the In Residence faculty series, with an expected start date of July, 2017.

The UCSF Department of Epidemiology and Biostatistics provides a supportive academic environment for original methodological research and ample opportunities for collaboration, including with the Helen Diller Family Comprehensive Cancer Center, as well as teaching and mentoring as part of our Master's Degrees in Clinical Research and Global Health and the Epidemiology and Translational Science and Global Health Sciences PhD programs.

Duties: The successful candidate is expected to conduct collaborative research with biomedical scientists, maintain their own research program, and carry a light teaching load (typically 1 to 2 quarter-length courses per year or the equivalent). We will consider any area of research compatible with current departmental programs. This is an opportunity to join an energetic, involved Biostatistics program at one of the nation's top medical research institutions.

Qualifications: PhD in Biostatistics or a closely related field. Preference given to candidates with experience in collaboration and consulting in a biomedical environment and excellent teaching and communication skills.

UC San Francisco seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status.

Please apply online at **http://apptrkr.com/924696** by submitting a cover letter, Curriculum Vitae, statements of teaching and research, and the names and contact information of three references. Applications open until the positions are filled, but to assure complete consideration please submit materials by January 31, 2017.

informatics, or related field with experience collaborating with medical or public health professionals preferred. *https://goo. gl/9V6QOK*. EOE.

Assistant professor. East Carolina University, Greenville, NC invites applications for an anticipated full-time, tenure-track position at the assistant professor level in statistics, beginning August 14, 2017. Applications will be considered until position is filled. Please submit an online ECU application for vacancy # 940687 to ECU Human Resources at *www.jobs.ecu.edu*. Visit this job posting at *https://goo.gl/cozS60*. East Carolina University is an equal opportunity/affirmative action employer.

Ohio

The department of mathematics at Marshall University invites applications for a tenure-track position in statistics commencing in fall 2017. Candidate must have a PhD in statistics or mathematics with strong emphasis in statistics. The successful candidate will teach undergraduate and graduate levels in statistics and mathematics, conduct research, and involve students in his/ her research work. Full detail of the application is available at *https://goo.gl/* Z1PEVd. Marshall University is an AA/ EEO employer and values diversity. It is also an NSF ADVANCE institutional transformation university, working to advance the careers of women faculty, especially in the science and engineering disciplines.

Tennessee

■ The department of business analytics and statistics at the University of Tennessee is currently screening applicants for a tenure track assistant professor (or associate professor) of business analytics position, to begin August 1, 2017. For the job description and information regarding how to apply, go to *tiny.utkedu/faculty2017*. EOE.





SCHOOL OF PUBLIC HEALTH

Chair, Department of Biostatistics and Computational Biology

Dana-Farber Cancer Institute

Professor of Biostatistics

Harvard T.H. Chan School of Public Health

The Dana-Farber Cancer Institute and the Harvard T.H. Chan School of Public Health are seeking a distinguished scientist to serve as chair of the Department of Biostatistics and Computational Biology at the Dana-Farber Cancer Institute. The successful candidate will also be appointed as a tenured professor in the Department of Biostatistics at the Harvard T.H. Chan School of Public Health and will provide leadership in the cancer training and research program in the department.

The Department of Biostatistics and Computational Biology at the Dana-Farber Cancer Institute is an active department of 21 faculty, 12 doctoral research scientists, 21 masters-level statisticians, and 12 bioinformatics analysts/engineers conducting wide-ranging methodological research in biostatistics and computational biology and collaborative research in cancer. The department is home to the statistical centers for the International Breast Cancer Study Group and the ECOG-ACRIN Cooperative Group, coordinates the Biostatistics Core Facility for the Dana-Farber/ Harvard Cancer Center, and is the principal site of the Centers for Cancer Computational Biology, Functional Cancer Epigenetics, and Center for Cancer Evolution and cBio Center. The department is closely affiliated with the Department of Biostatistics at the Harvard T.H. Chan School of Public Health, where many of the department's faculty hold primary appointments and participate in the graduate training program.

The successful candidate will be a visionary leader, internationally recognized as a pre-eminent scientist with an established record of scholarship, ideally in the area of cancer research. Candidates should hold a doctoral degree in a relevant field.

Please submit a letter of application, including a statement of current and future research interests, a curriculum vitae, and sample publications, online at http://academicpositions.harvard.edu/postings/7145. It would be helpful if you would also provide the names of senior scholars likely to be most knowledgeable about your field and about your work in particular. Please contact facultyaffairs@hsph.harvard.edu with any questions.

Dana-Farber Cancer Institute and Harvard University seek to find, develop, promote, and retain the world's best scholars and are Affirmative Action/Equal Opportunity Employers. Applications from women and minority candidates are strongly encouraged.

The Department of Biostatistics and Computational Biology at Dana-Farber Cancer Institute provides a flexible working environment and provides a balance between work and life. Information on resources for career development and work/life balance at the Harvard Chan School can be found at: https://hlc.harvard.edu/hlc-work-life-programs-at-a-glance/.

We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.



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Texas

■ Tenure track positions in statistics and mathematics at The University of Texas at Dallas. The department of mathematical sciences within the School of Natural Sciences and Mathematics invites applications for up to four assistant level tenure-track faculty positions. For more information and to apply, *https://goo. gl/Z6fOCE*. The University of Texas at Dallas is an equal opportunity/equal access/affirmative action employer committed to achieving a diverse and inclusive community.

Virginia

■ Biostatistician open rank faculty search. Open rank tenure track biostatistics faculty position in Virginia Tech department of statistics. PhD in biostatistics or closely related field required. Nine-month salary (with opportunity to conduct extramurally funded summer research funding) is competitive and commensurate with experience. Submit application online at *http://listings.jobs. vt.edu* (#TR0160168). Review of applications began on January 15, 2017 and will continue until position is filled. Virginia Tech is an EO/AA university.

Wisconsin

Assistant/associate professor in statistics. The department of mathematical sciences at the University of Wisconsin-Milwaukee invites applications to fill a tenure-track or tenured faculty position in statistics. The appointment start date is 08/21/2017. Review of applications will start 03/01/2017 and continue until the position is filled. Applications received after this date may not receive full consideration. For the full posting and more information, please visit https://goo.gl/djM9wW. UWM is an AA/ EO employer: All applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, sexual orientation, gender identity/expression, disability, or protected veteran status.

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misc. products and services

Brigham Young Universityp	. 8
Perelman School of Medicinep. 3	38

professional opportunities

Duke Universityp. 44 U.S. Census Bureaup. 48 University of California San Franciscop. 45 University of Southern Californiap. 43 The University of Texas at Dallasp. 43 Westat	Dana-Farber Cancer Institute	p. 46
University of California San Franciscop. 45 University of Southern Californiap. 43 The University of Texas at Dallasp. 43	Duke University	p. 44
University of Southern Californiap. 43 The University of Texas at Dallasp. 43	U.S. Census Bureau	p. 48
The University of Texas at Dallasp. 43	University of California San Francisco	p. 45
, , , , , , , , , , , , , , , , , , , ,	University of Southern California	p. 43
Westatp. 45	The University of Texas at Dallas	p. 43
	Westat	p. 45

software

JMP a software of SAS	cover 4
Minitab	cover 2
SAS Institute Inc	cover 3
StataCorp	centerfold

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