

October 2015 • Issue #460

# AMSTATNEWS

The Membership Magazine of the American Statistical Association • <http://magazine.amstat.org>



Photo by Sara Davidson

# The HIGH POINTS of JSM 2015

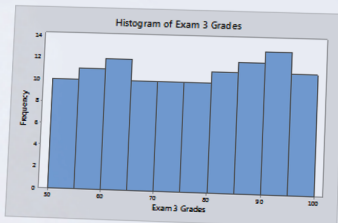
## **ALSO:**

ASA Statement on the Role  
of Statistics in Data Science

Statistics Degrees Continue  
Strong Growth

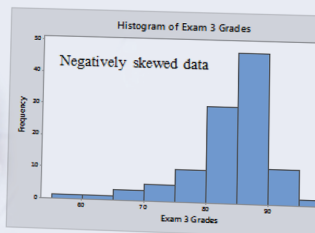
# Everything you need to plan your class.

Mean (~71.86) and median (73) are about the same



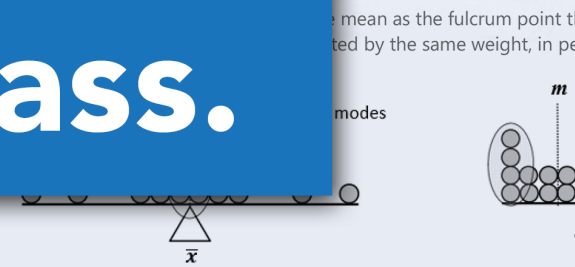
Mean (~75.04) and median (75) are about the same

Mean (~66.32) is greater than the median (62)



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

## Measures of Spread



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

### Example 1

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

Brand A:	41	289	214	102	38	94	17
Brand B:	39	65	22	64	22	191	99
Brand C:	24	95	139	122	41	360	31

Here are the lifetimes plotted as comparison dotplots in Minitab:

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Answer Keys



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OCTOBER 2015 • ISSUE #460

## Executive Director

Ron Wasserstein: [ron@amstat.org](mailto:ron@amstat.org)

## Associate Executive Director and Director of Operations

Stephen Porzio: [steve@amstat.org](mailto:steve@amstat.org)

## Director of Science Policy

Steve Pierson: [pierson@amstat.org](mailto:pierson@amstat.org)

## Director of Education

Rebecca Nichols: [rebecca@amstat.org](mailto:rebecca@amstat.org)

## Managing Editor

Megan Murphy: [megan@amstat.org](mailto:megan@amstat.org)

## Production Coordinators/Graphic Designers

Sara Davidson: [sara@amstat.org](mailto:sara@amstat.org)

Megan Ruyle: [meg@amstat.org](mailto:meg@amstat.org)

## Publications Coordinator

Val Nirala: [val@amstat.org](mailto:val@amstat.org)

## Advertising Manager

Claudine Donovan: [claudine@amstat.org](mailto:claudine@amstat.org)

## Contributing Staff Members

Kathleen Wert • Rebecca Nichols • Eric Sampson  
Naomi Friedman

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American Statistical Association

732 North Washington Street  
Alexandria, VA 22314-1943 USA  
(703) 684-1221 • FAX: (703) 684-2037

**ASA GENERAL:** [asainfo@amstat.org](mailto:asainfo@amstat.org)

**ADDRESS CHANGES:** [addresschange@amstat.org](mailto:addresschange@amstat.org)

**AMSTAT EDITORIAL:** [amstat@amstat.org](mailto:amstat@amstat.org)

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



## Online Articles

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

### Beyond AP Statistics (BAPS) Workshop Held in Conjunction with JSM

The ASA/National Council of Teachers of Mathematics Joint Committee on Curriculum in Statistics and Probability sponsored a Beyond AP Statistics (BAPS) workshop at JSM.

Sadly, **Yvonne Bishop**, age 90, passed away at her home in Washington, DC, after a massive stroke. Within the statistical community, she is remembered for *Discrete Multivariate Analysis: Theory and Applications*.

### Making Connections in State College

More than 450 statistics educators gathered at Penn State in May for the largest U.S. Conference on Teaching Statistics.

The **University of Michigan Department of Biostatistics** successfully held its first undergraduate summer program, "Transforming Analytical Learning in the Era of Big Data," ([bigdatasummerinst.sph.umich.edu](http://bigdatasummerinst.sph.umich.edu)) in June in Ann Arbor, Michigan.

The **Department of Biostatistics at Columbia University's Mailman School of Public Health** recently celebrated its 75th anniversary (<http://bit.ly/1OLTBIU>), making it one of the oldest biostatistics departments in the country.

Introducing **The Canadian Statistical Sciences Institute** – CANSSI ([www.canssi.ca](http://www.canssi.ca)), which was established in 2012 by the Statistical Society of Canada.

### CORRECTION

In the September issue, we noted Stu Hunter as being ASA president in 1992. He was actually president in 1993. We apologize for the error.

## departments

### 25 education

Statistics Workshops for Math and Science Teachers Held in Seattle

Educational Ambassador from Bangladesh Attends Courses



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# Reflections on JSM 2015

I reckon I had a degree of personal contact with about 250 people while at Seattle's JSM. To the 6,600 others I missed, I look forward to connecting during a future JSM or another ASA activity! Indeed, it was another record attendance, exceeding the tremendous turnout for the 175th anniversary in Boston last year by about 50 people.

To the approximately 1,500 first-time attendees, I hope it was all you thought it would be and more. To the approximately 100 docents who worked with Mary Kwasny, thanks for volunteering to guide people, answer their questions, and make them feel more welcome and less confused!

To the eager and energetic first-timers at the table with me, it was a real treat talking to you and reconnecting with that feeling of awe and enthusiasm of our first JSM. To the 43 mentors who offered to connect with people looking for experience and guidance, here's hoping this is a start to a rewarding experience for you all.

To the many award winners, including our new Fellows, congratulations! A special recognition to James Albert, David Banks, and Sally Morton—winners of the ASA Founders Award for the hundreds of hours (Dare I say more?) of time generously given to support the ASA in myriad ways. To the hundreds of people serving on or chairing committees and organizing or chairing sessions—making JSM such a success—thank you! To the dedicated and responsive ASA staff, it wouldn't have happened without all your efforts before and during the event!

Here are some random observations and recollections of note as the conference unfolded.

**ASA Executive Director.** Ron Wasserstein is always on the move, being at the right place at the right time, providing support to board members, clearing the path, helping us look like we know what we're doing! The skilled orchestra director inspiring the members of the orchestra with perfect coordination and timing, though some might say he is more like the Wizard of Oz—behind the curtain and pulling the levers!

**Meeting with Docents on Sunday.** Mary Kwasny standing on a chair, inspiring her legions of docents! Enthusiastic volunteers, some sporting green biopharm shirts.

**First-Time Attendee Orientation and Reception.** Ballrooms 6 A, B, and C filled with first-timers (perhaps 500?), tables as far as you can see with enthusiastic and eager first-timers in rapt conversation with docents; their energy and curiosity at the mixer recharged my batteries. Paula Roberson and Jeri Mulrow warmly welcoming the first-timers. Jeri offering them a "Top 10 List" of things they have to do while at JSM. Many thanks to the Caucus for Women in Statistics for its sponsorship of this event.

**ASA Staff.** Ready, prepared, helpful. All we need to do is ask and they're on it! Looking to address anything that needs fixing or could be improved.

**Exhibit Hall.** Walking through the EXPO, feeling a keen level of interest, seeing the vibrant posters and dynamic presenters.

**Council of Sections (COS) Business Meeting.** Meet with the COS to talk about initiatives, plans, and ways the board can support the COS. Urging each section to consider starting a mentoring

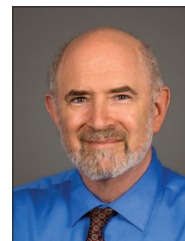
program or giving annual recognition to an outstanding mentor from a chapter. Learned the Section on Statistical Consulting has initiated a mentoring award and the Biopharmaceutical Section mentoring program is developing nicely!

**Awards Ceremony.** Dressed in his dapper tuxedo, Nat Schenker honoring the awardees and quickly adjusting to last-minute changes. Looked as smooth as silk! ASA expended great effort before the ceremony to ensure recipients' names would be announced accurately by providing Nat with a recording of them pronouncing their own name and adding a phonetic pronunciation just in case. Congratulating all the award winners, thinking what an extraordinary organization with so many willing to step forward and do whatever needs to be done.

**Opening Mixer.** A few dozen attendees walking up to me and asking to take a picture with me! Why on Earth? After the fifth one, I asked, "Why would you want this photo?" Answer: The JSM Challenge. The conference app had a series of questions and tasks ... one of which was "Get a selfie with Morganstein"! Meeting *many* ASA members this way.

Stopping to chat with old colleagues while traveling from hotel to conference center and back! Many steps recorded on my fitness app!

**ASA/Significance Luncheon.** Listening to friends Jonas and Susan Ellenberg's brilliant mathematician son, Jordan, discuss his perspective on the contrast between our two fields—mathematics and statistics. (Read his book, *How Not to Be Wrong: The Power of Mathematical Thinking!*)



David Morganstein



**Emily Morganstein** • @emorganstein  
 Hangin' w/ the ASA President, David Morganstein, pre-speech at the @AmstatNews #JSM2015. @westat @drm0223 #statistics



**President's Invited Speaker.**

Big attendance at Christine Fox's talk. Fantastic presentation, full of excellent advice, great passion, and interesting reflections on three secretaries of defense.

**Council of Chapters (COC) Governing Board.** A quick return to the Sheraton to chat with COC Governing Board members about initiatives, plans, and ways the board can support them. Urging each chapter to consider starting a mentoring program or giving annual recognition to an outstanding mentor. Discussing the progress the Washington Statistical Society is making in its newly initiated mentoring program.

Hearing my administrative assistant, Melissa Mills, say to me, "You have 30 events on your calendar from Sunday to Thursday, and some are at the same time!"

**Meeting Within a Meeting (MWM).** Welcoming the teach-

ers who participate in MWM, a two day workshop the ASA offers to help train to help train middle and high school mathematics and science teachers to teach statistics. Sharing with them the appreciation we feel for the important and challenging career they have taken on and offering them the ASA's support.

Committee of Presidents of Statistical Societies (COPSS) Meeting. Attending the important meeting of statistical societies and discussing joint efforts, including awards that recognized outstanding contributions to our profession.

**Committee on Applied Statisticians (CAS) Mentoring Discussion.** Mentors outnumbering mentees two to one. Enthusiastic participants. Insights and experiences offered by Sastry Pantula, Sally Morton, and me in a lively panel discussion with lots of audience interaction.

**Practice ... and Walking.** Back to the conference center for a walk-through of the Founders and Fellows awards. Knowing this was the first of two congratulations I would warmly extend to them! By the time of the official ceremony Tuesday night—the second congratulations—we seemed like old friends.

Doing a dry run of my talk to a cavernous, yet virtually empty, ballroom filled with thousands of empty chairs ... save two. Jessica Utts and Sally Morton graciously came to offer support and feedback, willing to make the sacrifice of sitting through my talk twice! That's support! Can't thank you enough!

If Ron, Nat, Jessica, and I received a dollar for every step we

took traveling between events in the hotel and conference center, think of all the student registrations we could pay for!

**Deming Lecture.** Congratulating William Meeker, the 2015 Deming Lecturer, for his extraordinary career and extensive contributions to our profession.

**Walking ...** Back to the hotel to get into a tux for the evening! Having a last "quality check" from dear wife, Sheue-Ling, to make sure all is in place. Getting a picture taken by daughter, Emily, that made it on Facebook before I could even return to the conference center for the evening events!

**2015 Fellows.** A great honor to represent the ASA in congratulating each one of the new Fellows as they push forward the boundaries of statistical knowledge and practice.

**President's Address.** Months of preparation and practice come to a head. The speech of a lifetime to more than 1,000 colleagues. The three-dimensional Prezi format, with pictures and videos added to the expected text and graphs, seemed to add interest for the audience. A nice change of pace from the linear PowerPoint presentation. Received nice comments back!

If you saw any problems that need addressing, have any suggestions for making the conference better, please send them along!

In closing, I hope all of you—whether it was your first or 20th conference—made the connections, renewed the friendships, and discovered the methods that help enhance your careers, contributions, and enthusiasm for our work as statisticians. See you next year in Chicago!

*David Morganstein*

# Highlights of the August 2015 Board of Directors Meeting

Ron Wasserstein, ASA Executive Director

**A**SA President David Morganstein welcomed the board to Seattle for its annual pre-JSM meeting. He opened by thanking staff and ASA volunteers for what would prove to be a successful JSM. The highlights of the meeting follow.

## Discussion items:

The board had an active discussion agenda, including the following topics:

- Updating the *GAISE College Report*
- ASA advocacy efforts
- Next steps on an ASA statement on  $p$ -values
- Next steps on an International Prize in Statistics
- Whether and how to grow international membership
- Initiatives to coincide with the ASA statement on data science (see below)
- What are our biggest risks, and how should we confront them?

Active and intense discussion of each of the above items took place, generating numerous ideas. Staff and board members are following up on these ideas.

## Action items:

- New journal editors for 2016–2018 were appointed following recommendations from search committees and members of the Committee on Publications.
  - Rajeev Dehejia, New York University,  
*Journal of Business & Economic Statistics*
  - David Higdon, Virginia Tech University,  
*Journal on Uncertainty Quantification*
  - Michael Lee Cohen, National Academy of Sciences, *Statistics and Public Policy*
- The 2016 budget was approved. Among other things, the 2016 budget allows for the creation of a science policy fellow. (Details to follow later in *Amstat News*.)
- Sites for JSM 2022 were considered. Staff members were asked to negotiate with a small

number of finalist cities. The ASA Executive Committee will make the final decision based on the results of these negotiations.

- The board approved policies for creating named lectures at JSM and on corporate philanthropic support of the association.
- The following three ASA awards were created:

An annual ASA mentoring award will recognize “lifetime” achievement of individuals who have demonstrated extraordinary leadership in developing the careers of statistics students, statisticians, or statistical researchers early in their careers. The first award will be given at JSM 2016.

An annual ASA award for the best paper in *Statistical Learning and Data Mining: The ASA Science Journal* will be given for the first time at JSM 2016. The award will be funded by Wiley and the honoree selected by the journal’s editorial board.

Robert Riffenburgh has set up a planned gift to create an award of excellence in the transfer or extension of statistical methods developed for or from one field of application to another where it has never or seldom been used.

- The ASA joined the Royal Statistical Society and the International Statistical Institute on a statement about the importance of building statistical capacity, especially in the developing world. The statement is to be released on World Statistics Day (October 20).
- The board approved a statement on the role of statistics in data science. (See Page 9 in this issue.) A series of action steps in support of this statement will be following soon. Related to this, the board approved funding for ASA support of a data science education round-table being created by the Committee on Applied and Theoretical Statistics (CATS) of the National Academies.

## Reported items:

As usual, the board also heard an array of reports, including the following:

- Associate Executive Director and Director of Operations Steve Porzio reported on the

2015 ASA financials as of mid-year. He noted we are doing as expected and said he anticipates a positive operating result for 2015. He also said JSM pre-registration was very high and that JSM 2015 would be one of the top three in total attendance. (By the time the conference registration was over, JSM 2015 was the most-attended conference in our history, edging out the record set in Boston in 2014.)

- ASA Director of Development Amanda Malloy updated the board on the ASA's development program, including the membership giving campaign, planned giving, and corporate partnerships.
- ASA Vice President Rob Santos reported to the board on the activities of the many committees that make up the ASA's Professional Issues and Visibility Council. For each committee, he reported on its major accomplishments of the past year and its anticipated activities for the coming year. Regular communication between the board and various committees is essential to efficient operation of the association.
- Equally important to the efficiency and effectiveness of the ASA are the chapters and sections, so, as it always does, the board heard detailed reports from the governing boards of both groups about their respective activities.
- The board was updated on the progress of four strategic initiatives for 2015: (1) further developing mentoring programs and recognition of outstanding mentors within the ASA (<http://bit.ly/1DWWLaus>), (2) Stats 101, (3) JSM docent program (<http://bit.ly/1cwk87W>), and (4) Stats.org collaboration (<http://bit.ly/1PvdryX>). (For an overview, see <http://bit.ly/1zKWUVx>.) (All articles mentioned are available on the *magazine.amstat.org* website.)
- President-elect Jessica Utts finalized with the board her strategic initiatives for 2016. (All initiatives of the ASA presidents are based on the ASA's strategic plan.) She will report on these initiatives from the *Amstat News* President's Corner next year, but as a sneak preview, the four

## 2015 Board of Directors

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Anna Nevius, First-Year Council of Sections Representative

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David van Dyk, Publications Representative

Ron Wasserstein, Executive Director and Board Secretary

initiatives are (1) getting information about careers in statistics into high-school statistics classes; (2) prioritizing the statistics education research agenda (as a help to funders); (3) developing media training for statisticians; and (4) creating a "statistical ambassadors roundtable."

The board meets again November 13–14 in Alexandria, Virginia, for its final meeting of the year. ■



# JOURNAL OF QUANTITATIVE ANALYSIS IN SPORTS HIGHLIGHTS Baseball, Soccer, American Football, Downhill Skiing in September Issue

Mark E. Glickman, *JQAS* Editor-in-Chief

The September 2015 issue (volume 11, issue 3) of the *Journal of Quantitative Analysis in Sports (JQAS)* features five articles with applications to baseball, soccer, American football, and downhill skiing. The issue highlights the breadth and diversity of methodological approaches toward sports applications that has made *JQAS* the flagship outlet for statistical research applied to sports.

“The Implied Volatility of a Sports Game” by **Nicholas Polson** and **Hal Stern** is the Editor’s Choice article for this issue, and is available for free download 12 months after the issue is published. The article develops a method to assess the time-varying volatility of a within-game point score difference based on the pre-game point spread and the money-line odds, which are continuously updated during the game. The method is demonstrated to assess the volatility at various moments during Super Bowl XLVII, which can lead to improved probability estimates of the final game outcome.

**Mark Glickman** and **Jonathan Hennessy** develop a model for competitors in multi-entry games that acknowledges that competitors’ abilities may be changing over time in “A Stochastic Rank-Ordered Logit Model for Rating Multi-Competitor Games and Sports.” The approach relies on a state-space framework for game outcomes and competitor abilities. The authors describe both a

fully Bayesian and approximate Bayesian analysis of their model and apply their approach to the results of women’s Alpine downhill skiing data.

**Jared Cross** and **Dana Sylvan** develop an approach to producing heat maps that accurately estimate baseball batting proficiency as a function of pitch location in “Modeling Spatial Batting Ability Using a Known Covariance Matrix.” Their method models batting success as a function of location through a spatial Gaussian field with an accurate and realistic covariance model to characterize spatial dependence. They demonstrate their approach to the batting patterns of several elite players.

In “Rethinking the FIFA World Cup Final Draw,” **Julien Guyon** examines features of the current draw procedure and derives an approach to improve the existing method. In particular, he focuses on developing an approach that improves ability balance in the draw, fairness to the better teams, and uniformity of the draw distribution. He concludes the article with a proposed tractable draw procedure that could be used by FIFA.

Finally, **Lars Magnus Hvattum** is concerned with measuring the effect of playing surface on a soccer team’s ability in “Playing on Artificial Turf May Be an Advantage for Norwegian Soccer Teams.” He addresses this question by examining the improvement in home-field advantage by teams that switch from natural grass fields to

artificial turf and accounting for team strength through a variation of the Elo rating system. He concludes that artificial turf, on average, increases home-field advantage, though not necessarily the strength of the home team itself.

These articles are available on a subscription basis from the *JQAS* website, [www.degruyter.com/view/jljqas](http://www.degruyter.com/view/jljqas). Prospective authors can find the journal’s aims and scope, as well as manuscript submission instructions, there. ■

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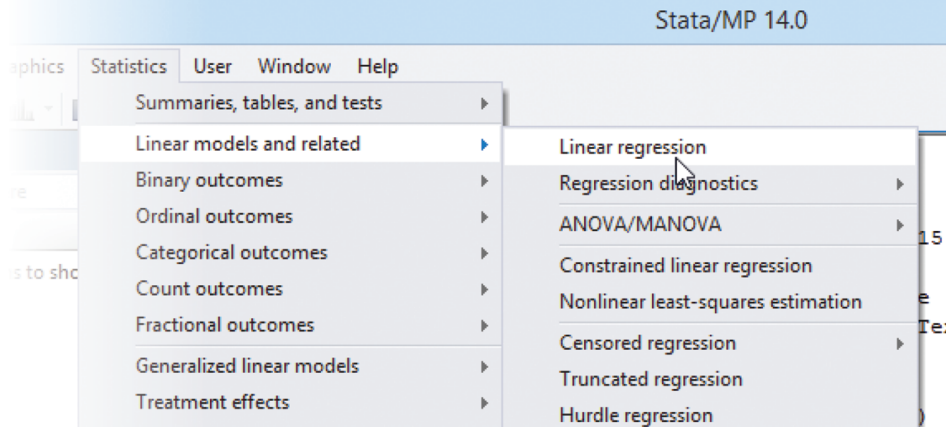
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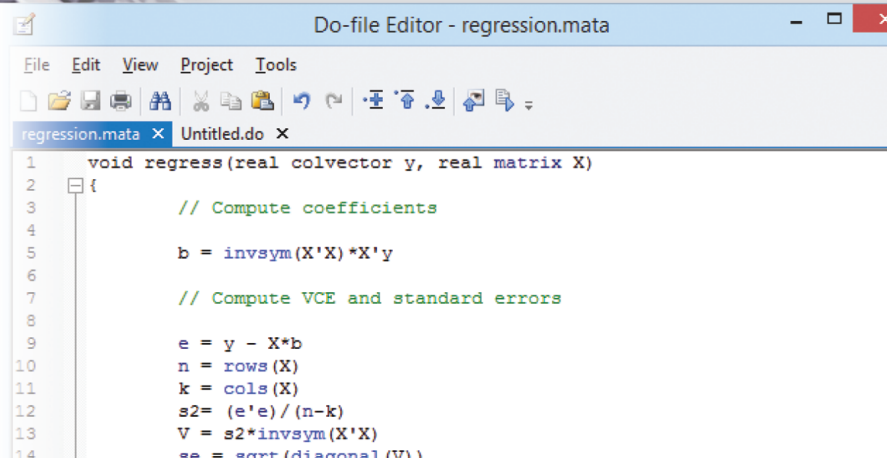
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# ASA Statement on the Role of Statistics in Data Science

The rise of data science, including Big Data and data analytics, has recently attracted enormous attention in the popular press for its spectacular contributions in a wide range of scholarly disciplines and commercial endeavors. These successes are largely the fruit of the innovative and entrepreneurial spirit that characterize this burgeoning field. Nonetheless, its interdisciplinary nature means that a substantial collaborative effort is needed for it to realize its full potential for productivity and innovation. While there is not yet a consensus on what precisely constitutes data science, three professional communities, all within computer science and/or statistics, are emerging as foundational to data science: (i) **Database Management** enables transformation, conglomeration, and organization of data resources, (ii) **Statistics and Machine Learning** convert data into knowledge, and (iii) **Distributed and Parallel Systems** provide the computational infrastructure to carry out data analysis.

Certainly, data science intersects with numerous other disciplines and areas of research. Indeed, it is difficult to think of an area of science, industry, commerce, or government that is not in some way involved in the data revolution. But it is databases, statistics, and distributed systems that provide the core pipeline. At its most fundamental level, we view data science as a mutually beneficial collaboration among these three professional communities, complemented with significant interactions with numerous related disciplines. For data science to fully realize its potential requires maximum and multifaceted collaboration among these groups.

Statistics and machine learning play a central role in data science. Framing questions statistically allows us to leverage data resources to extract knowledge and obtain better answers. The central dogma of statistical inference, that there is a component of randomness in data, enables researchers to formulate questions in terms of underlying processes and to quantify uncertainty in their answers. A statistical framework allows researchers to distinguish between causation and correlation and thus to identify interventions that will cause changes in outcomes. It also allows them to establish methods for prediction and estimation, to quantify their degree of certainty, and to do all of this using algorithms that exhibit predictable and reproducible behavior. In this way, statistical methods aim to focus attention on findings that can be reproduced by other researchers with different data resources.

## Statement Contributors

David van Dyk,  
*Imperial College (chair)*

Montse Fuentes, *NCSU*

Michael I. Jordan,  
*UC Berkeley*

Michael Newton, *University  
of Wisconsin*

Bonnie K. Ray,  
*Pegged Software*

Duncan Temple Lang,  
*UC Davis*

Hadley Wickham, *RStudio*

Simply put, statistical methods allow researchers to accumulate knowledge.

For statisticians to help meet the considerable challenges faced by data scientists requires a sustained and substantial collaborative effort with researchers with expertise in data organization and in the flow and distribution of computation. Statisticians must engage them, learn from them, teach them, and work with them. Engagement must occur at all levels: with individuals, groups of researchers, academic departments, and the profession as a whole. New problem-solving strategies are needed to develop “soup to nuts” pipelines that start with managing raw data and end with user-friendly efficient implementations of principled statistical methods and the communication of substantive results. Statistical education and training must continue to evolve—the next generation of statistical professionals needs a broader skill set and must be more able to engage with database and distributed systems experts. While capacity is increasing within existing and innovative new degree programs, more is needed to meet the massive expected demand. The next generation must include more researchers with skills that cross the traditional boundaries of statistics, databases, and distributed systems; there will be an ever-increasing demand for such “multi-lingual” experts.

Working with statisticians, departments of statistics, and other professional societies, the American Statistical Association (ASA) is well positioned to help formulate discussion around the role of statistics in data science, to navigate the way forward in this quickly evolving environment, and to provide forums for communication and collaboration among data scientists, including statisticians and nonstatisticians alike. The ASA aims to facilitate collaboration between statisticians and other data scientists and thus enable them to achieve more than they could on their own. ■

# Statistics Degrees Continue Strong Growth

Steve Pierson, ASA Director of Science Policy

## STATISTICS AND BIostatISTICS DEGREES

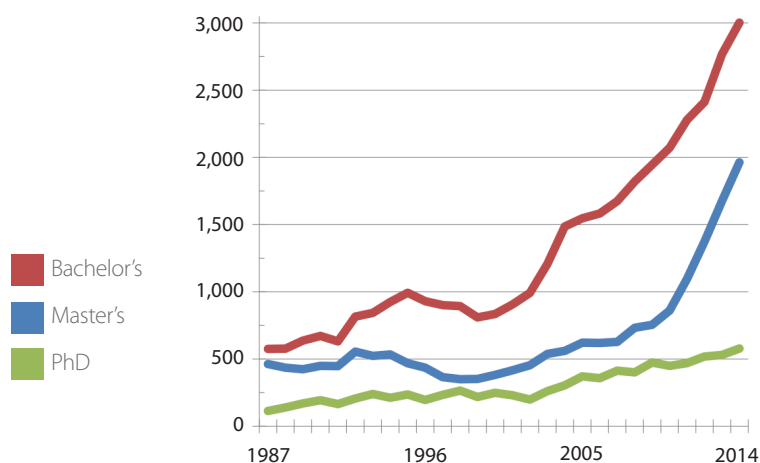


Figure 1: Statistics and biostatistics degrees at the bachelor's, master's, and doctoral levels in the United States.  
Data source: NCES IPEDS.

## BIostatISTICS DEGREES

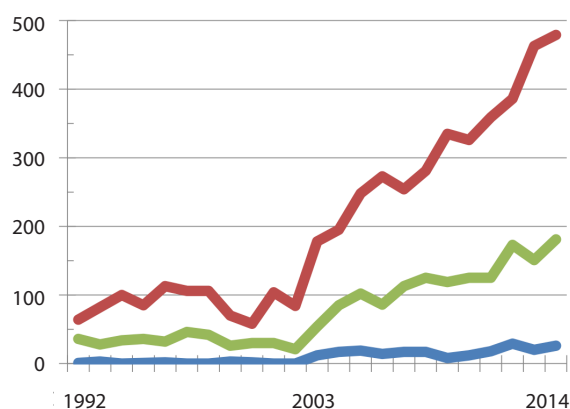


Figure 2: Biostatistics degrees by degree level awarded in the United States.  
Data source: NCES IPEDS.

The 2014 degree data released in late August by the National Center for Education Statistics (NCES) reveal continued strong growth of undergraduate and graduate statistics and biostatistics degrees (Figure 1). Bachelor's degrees increased 17% over 2013, master's degrees 8%, and PhDs 9%. The increase is especially dramatic for bachelor's degrees, with a more than doubling (2.28) from 2010 to 2014 and a quintupling from 2000 to 2014. Master's degrees increased 45% from 2010 to 2014 and more than tripled from 2000 to 2014; PhDs increased 29% from 2010 to 2014 and more than doubled from 2000 to 2014. The data for this chart, which represent NCES CIP Code 27.05 (Statistics) and 26.1102 (Biostatistics), can be found at [www.amstat.org/misc/StatBiostatTable1987-Current.pdf](http://www.amstat.org/misc/StatBiostatTable1987-Current.pdf).

For biostatistics degrees, for which NCES started providing data specifically in 1992, master's degrees track the overall increase from 2010–2014 at 47%, but a roughly four-fold increase from the 1990s (Figure 2). Biostatistics PhDs are up 45% since 2010 and more than 400% since the 1990s. The number of undergraduate degrees in biostatistics remains below 30. The table of this data is available at [www.amstat.org/misc/BiostatTable1992-Current.pdf](http://www.amstat.org/misc/BiostatTable1992-Current.pdf). The table for only statistics degrees is available at [www.amstat.org/misc/StatTable1987-Current.pdf](http://www.amstat.org/misc/StatTable1987-Current.pdf).

### PERCENTAGE OF US STATISTICS AND BIOSTATISTICS DEGREES AWARDED TO WOMEN

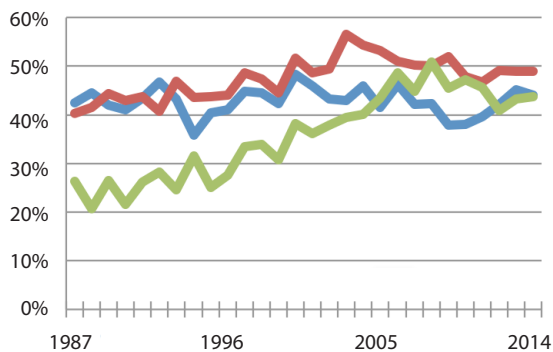


Figure 3: Percentage of statistics and biostatistics degrees awarded to women by degree level for 1987–2014. Data source: NCES IPED.

### PERCENTAGE OF US STATISTICS DEGREES AWARDED TO WOMEN

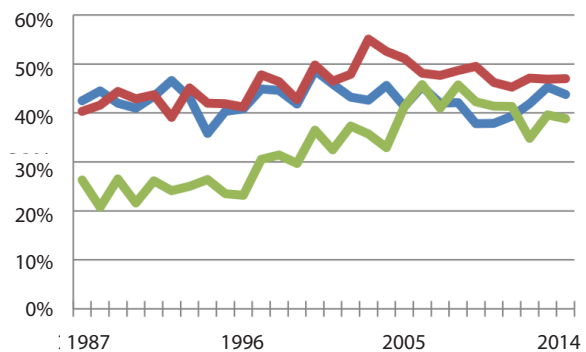


Figure 4: Percentage of statistics degrees awarded to women by degree level for 1987–2014. Data source: NCES IPED.

The percentage of women earning statistics degrees in 2014 is between 43% and 49%, with master’s degrees having the highest percentage for the last several years, as shown in Figure 3.

Biostatistics degrees at the graduate level generally have a higher proportion of women earning the degrees than statistics degrees, as seen in figures 4 and 5.

The September 2014 *Amstat News* article about the release of the 2013 NCES degree data (<http://magazine.amstat.org/blog/2014/09/01/degrees>) also had charts of the number of universities granting statistics and biostatistics degrees—graduate and undergraduate—from 2003–2013, a table of the 10 universities granting the most bachelor’s degrees in statistics for 2011–2013, and links to tables of all universities granting such degrees. Because of space constraints, these updated data are available at <http://bit.ly/1govqvL>. ■

### PERCENTAGE OF US BIOSTATISTICS DEGREES AWARDED TO WOMEN

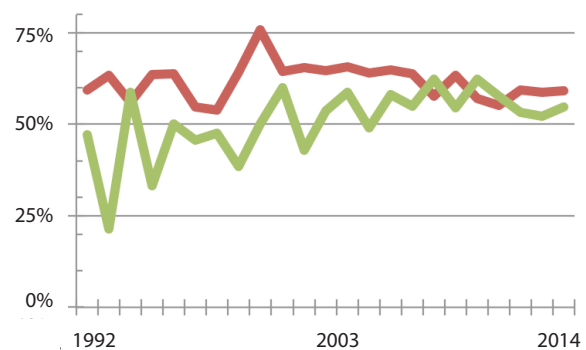


Figure 5: Percentage of master’s and PhD biostatistics degrees awarded to women for 1992–2014. Data source: NCES IPED.

## ASA LEADERS REMINISCE

# Sallie Keller

Jim Cochran

*In the 10th installment of the Amstat News series of interviews with ASA presidents and executive directors, we feature a discussion with 2006 President Sallie Keller.*



**Sallie Keller** is professor of statistics and director of the Social and Decision Analytics Laboratory within the Virginia Bioinformatics Institute at Virginia Tech. She holds a PhD in statistics from Iowa State University of Science and Technology. Formerly, she was professor of statistics and academic vice president and provost at the University of Waterloo, director of the IDA Science and Technology Policy Institute, and professor

of statistics and William and Stephanie Sick Dean of Engineering at Rice University. Her other appointments include head of the statistical sciences group at Los Alamos National Laboratory, professor and director of graduate studies in the department of statistics at Kansas State University, and statistics program director at the National Science Foundation.

Keller has served as a member of the National Academy of Sciences Board on Mathematical Sciences and Their Applications and chaired the Committee on Applied and Theoretical Statistics and Committee on National Statistics. Her areas of expertise are social and decision informatics, the statistical underpinnings of data science, uncertainty quantification, and data access and confidentiality. She is a national associate of the National Academy of Sciences, a fellow of the American Association for the Advancement of Science, an elected member of the International Statistics Institute, and a member of the JASON advisory group. She is also a fellow of the American Statistical Association and a recipient of the ASA's Founders Award.

**Q** Sallie, thank you for taking time to talk with me. At one time, conventional wisdom was to think carefully about where you took your first position after completing your degree because moving into and out of academia in mid-career was extremely difficult. But you have successfully moved from academia to a federal lab and then back to academia. Do you think moving into and out of academia in mid-career has become easier? What advice do you have for students who are completing their degrees and hope to move across academia, government, and/or industry during their careers?

**A** Anyone who knows me would likely say I have never followed conventional wisdom!

I would like to believe it has become more porous to move between academia, industry, and government. I believe the barriers are less about technical fit and more about differences in salary structures. There are endless opportunities today given the data science boom.

My advice to students and colleagues is to follow your passions and find the best place to realize them. Allow yourself to realign what you want to learn and accomplish during your career. Look for new challenges when you find yourself getting comfortable and even complacent. Don't be afraid of change and developing new relationships. Keep your career network strong.

**Q** Almost two decades ago, you and Richard Becker published the article, "Presentation Myths," in *The American Statistician* (1996). Since the publication of this article, technology has dramatically changed the way we give presentations. For example, PowerPoint was rarely used in 1996, but it is now ubiquitous. How would you update this article to reflect the changes in presentation technology over the past 20 years?

**A** It is interesting you should ask this question. I picked that paper back up earlier this summer and was stunned at how relevant it is today, so much so I circulated it to our students and post docs. And, since you asked, I think we should remind everyone of the myths Rick Becker and I described:

**Myth 1: Presentations Require a Magic Number of Visual Aids.** The ease of making slide-decks today requires even more thought to this point. More presenters should exercise the discipline of skipping slides when it is apparent they will never get to slide number 83. Also, be prepared to give your presentation without the slides in the event of technical failures, which is not uncommon today.

**Myth 2: The Audience Cannot Read.** Don't read your slides to the audience!

**Myth 3: Slides Are Preferred to Overhead Transparencies.** Fortunately for statistics, slides never gained traction.

**Myth 4:** *Handwritten Computer-Generated Transparencies Are Preferable.* Legible visual aids are preferable.

**Myth 5:** *Tabulated Data Are Informative.* I remain firm on the point that if there is an important message embedded in a table, a graphical display will communicate it more effectively.

**Myth 6:** *Graphical Displays Are Obvious.* Ha!

**Myth 7:** *Everyone Knows My Problem Is Important.* Ha, ha!

**Myth 8:** *The Session Chair Will Not Cut Me Off.* Ha, ha, ha!

**Myth 9:** *The Paper-Hiding Part of the Transparency Will Stay on the Overhead Projector.* Today I would caution about the overuse of automation.

**Myth 10:** *A Vibrating Display Gets Their Attention.* Here, too, I think our point is excellent and relevant, given the abundance of green and red lasers. Not knowing what else to do with our hands while we speak, it is natural to begin to point fast and furiously at something.

What I would add to this paper is encouragement that you gain some comfort with extemporaneous discourse, both in formal presentations and in informal settings such as research team meetings. This is a learned skill and takes both courage and practice. The practice comes from doing and gaining a thick skin for the reactions. Remember it is never personal unless you decide to make it so.

**Q** What were your first thoughts when you were asked to be a candidate for ASA president? What was your reaction when you learned you won the election?

**A** First, I called both Jon Kettenring and Brad Efron for advice. It was like getting advice in time-delayed stereo—they both said you have no choice, run! This was followed with advising that I decide how I wanted to make a

difference for the profession and simply do that. So, I accepted the nomination.

I resolved, win or lose, that I would put forward a provocative statement clearly stating where I felt ASA needed to step up and lead. This was gaining a presence in science policy, as distinct from public relations. It would require expanding the ASA staff at a time when the association was feeling resource constrained.

As you know, I was elected. I kept a sharp focus on this goal and am proud to say that, after lengthy discussions and debates, the ASA Board of Directors made science policy a priority. A full-time ASA position in science policy was created. It is currently filled by Steve Pierson and an additional position is to be added this year.

However, it is not simply about adding staff to the ASA. Today, statistical sciences through the ASA leadership has become part of the voice of science policy. The ASA Board of Directors routinely issues science policy statements. The ASA participates with other leading science organizations to promote science with major stakeholders and has become an influential voice on Capitol Hill and in the president's administration, advocating for the budgets and independence of the federal statistical agencies. Further, statisticians are more visible at the National Institutes of Health, the National Science Foundation, and the White House Office of Science and Technology Policy, making the case that statisticians improve scientific research. As one example of this increased visibility, the new U.S. chief data scientist, DJ Patil, recorded a message for attendees of the 2015 Joint Statistical Meetings extolling the work of statisticians. (Watch the video on YouTube at <http://bit.ly/1hSvBL>.)

**Q** In your presidential address at the 2006 Joint Statistical Meetings, you stressed the importance of statisticians

becoming leaders in the science integration process. Has our discipline made substantial progress in this area since you gave this address? What can the ASA and its member statisticians do to become the stewards of the science integration process? What advice would you share with future candidates for president of the ASA?

**A** You have now made me go back and read two papers I wrote! It is worth highlighting here what I meant by the “scientific process.” It means going beyond implementation of and protecting the scientific method. We need to put our work (research) into a decision context for policymakers to inform the leaders who shape the world. This ranges from world leaders to city managers.

Lead by example is the advice I would share with future candidates for ASA president.

My passion has been and remains engagement in the science process. During my career, I have studied natural disasters, terrorism, weapons of mass destruction, dual-use industrial innovation, technology insertion in developing economies, and urban analytics. Today, I have taken on the biggest challenge of my career in building a new lab, the Social and Decision Analytics Lab that is part of the Virginia Biocomplexity Institute at Virginia Tech. My lab is an intentional collection of statisticians and social scientists jointly focused on developing quantitative methods at a scale able to leverage *all* data to study the social condition. We are keenly focused on supporting policy and strategic decision-making under uncertainty. This requires team science, where the teams range from researchers to fire fighters to city demographers, all collaborating toward common goals to improve the quality of life where we all live, learn, work, and play. What could be more important? ■

Please return to this column next month, when we will feature an interview with 1995 ASA President Mitchell H. Gail.

## THE AMERICAN STATISTICIAN

# Special Issue: Mentoring in Support of Statisticians

### SUBMISSIONS WANTED FOR TAS SPECIAL ISSUE

The issue will include a mix of invited papers and papers submitted in response to this call. For details, visit [www.amstat.org/2016TASspecialissue](http://www.amstat.org/2016TASspecialissue). The deadline to submit a manuscript is December 4.

**T**he *American Statistician's* editorial team recently announced plans to develop a special issue of *TAS* focused on mentoring in support of statisticians and their professional practice. This effort will identify available resources, examine best practices, and help disseminate information with the goal of enhancing the continued development, assessment, or growth of these programs.

The special issue will be co-edited by Erin Tanenbaum of NORC at the University of Chicago and Eric Vance of the Virginia Tech-Laboratory for Interdisciplinary Statistical Analysis (LISA) and include a mix of invited papers and papers submitted in response to this call.

The themes of the articles will cover a range of topics, including the history of mentoring, types of mentoring, how mentoring improves

workplace environments and performance, and creating mentoring dyads.

Manuscripts should be submitted via the *TAS* website using the online portal system at <http://mc.manuscriptcentral.com/amstat>. Authors should indicate in their cover letter that the paper is being submitted for the special issue on mentoring (select the "Mentoring" manuscript type).

All submissions are due by December 4. Submitted papers will follow standard *TAS* external review procedures, and the special issue will be published in November 2016. Inquiries can be directed to Tanenbaum at [tanenbaum-erin@norc.org](mailto:tanenbaum-erin@norc.org) or Vance at [ervance@vt.edu](mailto:ervance@vt.edu).

For more information about *TAS*, visit <http://amstat.tandfonline.com/loi/tas>. For more information about this special issue, visit [www.amstat.org/2016TASspecialissue](http://www.amstat.org/2016TASspecialissue). ■

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# Celebrate World Statistics Day

October 20 is the second World Statistics Day (WSD), the United Nation's recognition and celebration of the importance of official statistics and those who collect and disseminate them around the world.

As part of the celebration, a data visualization contest was announced recently that challenges participants to answer a question relevant to development policy by building an infographic or dynamic visualization featuring the latest data from the *2015 Millennium Development Goals Report*. For more information about the contest, visit <https://worldstatisticsday.org/2015/07/09/dataviz-challenge>.

Also, a campaign button is being distributed throughout the world, most recently at JSM in Seattle, Washington, and the World Statistics Congress in Rio de Janeiro, Brazil. The button features a logo created for use in WSD celebrations in 15 languages. Those interested in creating the logo in another language should contact the United Nations Statistical Division (UNSD) at [statistics@un.org](mailto:statistics@un.org).

WSD is facilitated by UNSD, and campaigns are taking shape in many countries. Slovenia, Russia, and Vietnam are recent examples. Organizations celebrating WSD are encouraged to send information about and samples from their celebrations to the UNSD at [statistics@un.org](mailto:statistics@un.org). For example, Japan kicked off its celebration with a commemorative mug (see <https://worldstatisticsday.org/2015/06/05/japan-campaign-kick-off>).

"Statistics are critical for evidence-based decision-making across all cultural and historical



**WORLD  
STATISTICS  
DAY**

**20.10.2015**

**BETTER DATA.  
BETTER LIVES.**

backgrounds of countries and irrespective of their level of development," UN Secretary-General Ban Ki-moon said in an August 2015 letter to heads of state. "I am encouraged by the efforts made in recent years in many countries to strengthen their statistical capacity, under the leadership of national statistical offices, in areas such as population and housing censuses and the monitoring of the progress of Millennium Development Goals."

For more information about WSD, visit [worldstatisticsday.org](http://worldstatisticsday.org). ■

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**REGISTRATION DEADLINE: October 26**



Details: [www.amstat.org/education/weblectures/index.cfm](http://www.amstat.org/education/weblectures/index.cfm)

STATtr@k

# Statistics Afloat

Jean V. Adams, U.S. Geological Survey-Great Lakes Science Center and Great Lakes Fishery Commission

**Spending eight days on Lake Superior doing fieldwork gives statistician Jean Adams a better idea about the kind of statistical support her colleagues in the U.S. Geological Survey need. What follows is a record of one day on the trip.**



**Jean Adams** is a statistician with the U.S. Geological Survey-Great Lakes Science Center and the Great Lakes Fishery Commission, both in Ann Arbor, Michigan. She earned a master's degree in statistics from the University of Wisconsin and spent two years with the Peace Corps in Papua New Guinea.

I climb down from my bunk at 7 a.m. Bob, the biologist in charge, is already in the galley. This is his cruise. He's been trawling for alewives in Lake Ontario every spring for 30 years. It's his life's work. Ted, the biological technician, is readying the equipment for the day. Ed, the captain, tells us the weather forecast: east winds 10–15 knots, waves 1–3 feet. Bob says, "We'll start with the transect closest to port and work our way out. If the winds pick up, we'll high tail it back to the dock." Nods all around. Terry, the engineer, fires up the ship's engine and runs some tests. Then Ed eases the *Kaho* away from the dock and sounds the horn. It's 8 a.m. Saturday and we just woke up Olcott, New York.

We all work for the U.S. Geological Survey-Great Lakes Science Center, headquartered in Ann Arbor, Michigan. Bob is a research fisheries biologist and chief of the Lake Ontario Biological Station. I am the center statistician. We've been working together on the design of the annual alewife bottom trawl survey.

We'll be at the first transect in half an hour. I put on my oilers (waterproof overalls), steel-toed boots, float coat, and knit cap, then step out of the warmth of the cabin and onto the back deck. I lean my back against the fish-sorting table and anchor my feet wide apart, watching the horizon slant left then right. I flip up the collar of my jacket and zip it to the top. The boat slows and turns. We're getting close. The captain's tinny voice comes over the intercom, "Ready to go, 55 meters, bottom trawl, warp of 600 feet, 10-minute tow." The warp is the cable that connects the net to the boat. It takes 600 feet of line to get the net down 55 meters so that it's on the bottom.

After invading the Great Lakes when the Erie Canal opened in 1825, alewives are now a major part of the food web in Lake Ontario. They recently shifted to deeper waters, and Bob wants to change

the survey to better target them, so he invited me to participate in the survey and spend a few days onboard the USGS research vessel *Kaho*.

Bob and I throw the end of the net off the stern into the water. Terry operates the hydraulics that unreel the net. Bob and I stand aside, making sure we aren't caught up in the net as it races across the back deck. The bottom trawl is made of green mesh, like a badminton net, with grapefruit-sized orange floats along the head rope and heavy chain along the foot rope to keep the net's mouth open under water. The net floats on the surface of the water behind the boat. It's shaped like a cone, maybe 30 yards long. Bob and I connect the trawl doors to the net cables; they make a horrible racket as they tumble down the side of the boat into the water. The trawl doors help hold the net on the bottom of the lake, with the mouth open wide, so it can catch fish. The winches groan as Terry lets out the warp. After a few minutes, Terry turns off the winches and shouts, "Net's down! Brake on! Six hundred feet!" Silence. Ed keeps the boat at a steady speed of 2.5 knots.

The U.S. Geological Survey provides reliable scientific information to manage the nation's resources, and the Great Lakes Science Center focuses on the living resources and their habitats in the Great Lakes basin ecosystem. It's a great place for me to work, allowing me to apply my formal training in biology (BS) and statistics (MS) to real-world challenges.

After nine minutes, Ed lets us know, "One minute left in the tow, one minute." A minute later, he starts the count: "Five, four, three, two, one, pull 'er up." His voice is immediately drowned out by the winches reeling in the net and the snapping of the cable. After several minutes, the doors appear in the water, blurry and blue. They clamber up out of the water, the heavy chains racing into the pulleys. Terry continues reeling, slowly. "Net's up!" Bob shouts, to let the captain know. The engine rumbles, the boat turns, and we're off to the next site. Bob opens the cod end, easing the fish into a tub. We hover over the catch: oval, silver, shining alewives; oblong, gray-green rainbow smelt; boxy, dark-brown round gobies.

I am no expert in fish biology. I don't need to be. As I work with Bob and other center scientists, I learn

enough about their work to understand what sort of statistical support they need. The collaborations are rewarding, and the variety of projects is stimulating.

Bob and I dump the fish on the sorting table. Bob, Ted, and I stand astride counting fish. I lean forward against the table for balance, legs anchored wide. We write down the counts and weigh the buckets of fish. We double-check the data sheet. Has everything been counted and weighed? Good. Now we need to measure lengths. Bob measures alives to the nearest millimeter and says the length aloud. I put a tick mark next to that number on the length frequency data sheet. The boat slows and turns; we're getting close to our next site. We take a break from measuring to set the net. When we return, Bob continues to call out the lengths until he's measured the entire sub-sample.

As a statistician, there is no better way for me to learn about my colleagues' projects than to participate in their fieldwork. Inevitably, I see things in the field we never discussed in the office, things I never even thought to ask about, things that may have important statistical consequences. Going out in the field is one of my favorite parts of the job.



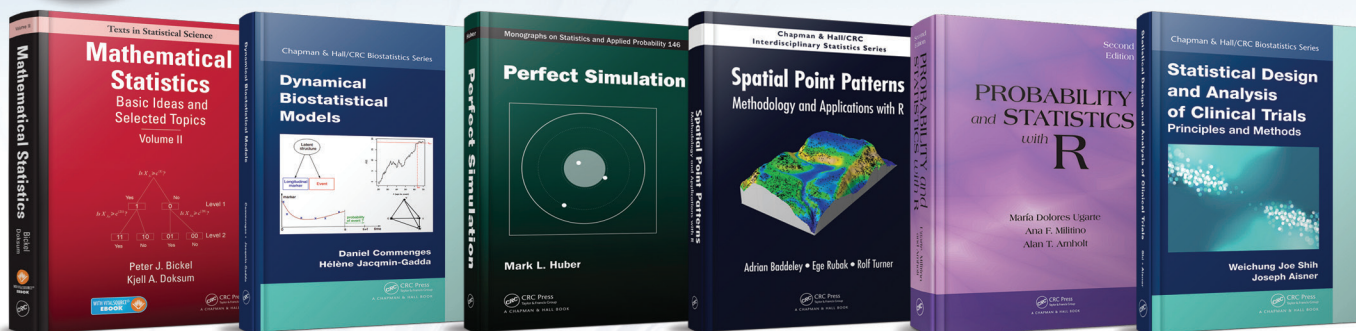
Courtesy of Jean Adams via YouTube  
Crew members sort and count fish on Adams' trip.

We hear Ed's voice on the intercom, "One minute left in the tow, one minute." Then he calls out, again, "Five, four, three, two, one, pull 'er up." And so the day continues, site after site, tow after tow, and tub after tub of fish. The engine's rumble and winches' groan become a steady rhythm. I am part of that rhythm, part of the routine, part of the machine. By 5 p.m., we're tied up at the dock again. Over dinner, I tell the guys it's been good cruising with them. After dinner, I climb up in my bunk, utterly exhausted and thoroughly content. The next sounds I hear are Bob and Ed in the galley fixing breakfast and talking about the weather. Time to get up and do it again. ■

**MORE ONLINE**  
Check out a video of Adams' trip on YouTube at <http://bit.ly/1KdsXPR>.

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# JSM 2015 FINAL REPORT

Peiyong (Annie) Qu, JSM 2015 Program Chair

The Joint Statistical Meetings (JSM) in Seattle, Washington, broke records this year with a total of 6,851 people in attendance. The theme for 2015 was “Statistics: Making Better Decisions,” and sessions focused on affecting decision-makers in government, industry, and academia. The conference attracted people from all areas of the statistics community and was, as always, a great place to present work, learn and exchange new ideas, and make new friends.

The exhibit hall was a hit and probably the liveliest place in the

convention center, with poster sessions, corporate booths, book publishers, and free drinks (at Spotlight Seattle).

The JSM 2015 program committee oversaw a program of 702 sessions. This year’s introductory overview lectures were popular as they provided new and exciting topics to stimulate beginners, including personalized medicine, new perspectives in spatial and spatio-temporal data analysis, statistical issues in computational neuroscience, and recent advances in machine learning and data mining.

There also were two well-

received late-breaking sessions: The VA Secretary Bans a Statistics Book and Meeting the Challenges of a Pandemic: The Statistical Aspects of Dealing with Ebola.

The technical sessions were particularly strong, sparking many positive comments about the quality of the program. Session topics ranged from new machine learning methods and computing tools to personalized medicine and genetics to Big Data visualization and graphics, image, and text data to electronic health records data, health policies, and environmental statistics.

All JSM photos were taken by **Eric Sampson** unless otherwise noted.

## JSM BY THE NUMBERS

6,851 JSM Attendees

702 Sessions

1,057 CE Registrants

280 Exhibitors

3,582 ASA Members



The Opening Mixer at JSM 2015 was one of the liveliest places in the convention center. It featured poster sessions, corporate booths, book publishers, and free food and drinks.

Named lectures such as the Wald Lecture by Susan Murphy, the Fisher Lecture by Stephen Fienberg, the Le Cam Lecture by Jon Wellner, the Deming Lecture by William Meeker, and the five medallion lectures were packed. In addition, the President's Invited Address by Christine Fox highlighted the theme of the conference: how statistics can play an important role in making better decisions—in this case, during wartime. Fox became famous for pointing out problems in training bombing pilots through analyzing data at Naval Air Station Miramar, from where the heroine in “Top Gun” was inspired.

Speed sessions made it back to JSM for their third year, as they continue to gain popularity. Each speaker gave a five-minute talk, and then presented his/her electronic poster in the exhibit hall later in the day. I

encourage presenters to consider speed sessions in the future. See the *Amstat News* article at <http://bit.ly/1Mtziu1> for more information about and the advantages of using this venue.

For each year's memorial sessions, we pay tribute to members of our profession who have passed away. This year's memorial sessions commemorated Leo Breiman, Marvin Zelen, Susie Bayarri, and Dennis Lindley, honoring their scientific work, providing personal memoirs, and connecting people who were close to them. (On a side note, I tried to go to Leo Breiman's memorial session, but the room was so full I could not get in.)

I had a great time as this year's JSM program chair. I got to know many people in our society, especially the young people who bring new blood and energy to our profession.

### Special Thanks

I am grateful to the ASA meetings staff, especially Naomi Friedman and Kathleen Wert. We have exchanged many emails throughout the past two years, and I will miss that!

I am thankful to the ASA staff members who developed the JSM 2015 app, which was probably the most-used app during the conference.

I also thank Xuming He and members of the Committee on Meetings for selecting me as program chair and providing many useful tips from previous JSM experiences.

My deepest thanks are to each of you who contributed to JSM 2015 by presenting, organizing, planning, chairing, and participating in sessions. Without you, we would not have such high-quality and exciting programs or such a wonderful showcase for the year in statistics!



ASA President David Morganstein (far left) and ASA Executive Director Ron Wasserstein (far right) with 2015 Founders Award recipients David Banks, Sally Morton, and James Albert

## The HIGH POINTS of JSM 2015

For those who were unable to attend or missed some of the activities, here are a few photos and highlights.

A special feature of the Joint Statistical Meetings was the ASA Presidential Address and Founders and Fellows Recognition, during which the Founders Award winners were announced and 62 new ASA Fellows were officially inducted. Congratulations to all.

President David Morganstein presented the Founders Award to James H. Albert, David L. Banks, and Sally C. Morton because, as Morganstein said, “Jim, David, and Sally are proven and effective leaders who have made significant and enduring contributions to the association and profession.” Citations for each 2015 Founders Award honoree follow:

**James H. Albert**, for outstanding leadership and efforts in statistical education and relationship-building between academia and industry; for service as editor of *The American Statistician* and the *Journal of Quantitative Analysis in Sports* and as a member of the *Significance* editorial board; for major contributions as associate editor of several ASA journals; for chairing and participating in numerous ASA committees and councils devoted to statistics education, Bayesian statistics, and

sports statistics; and for heightening interest in statistics through the use of sports examples and applications presented in papers, technical reports, lectures, blogs, and books.

**David L. Banks**, for outstanding leadership in the discipline, in its interfaces, and in the ASA; for consistent and varied professional contributions in areas of particular public interest, such as human rights, counterterrorism, immigration, and public health; for editorial work and

a commitment to modernizing our publications, including as a founding editor of *Statistics and Public Policy*, as editor of the *Journal of the American Statistical Association*, and as publications representative on the ASA Board; for service in multiple sections, local chapters, and committees; and for significant contributions on National Academies committees, to federal agencies, and to the National Institute of Statistical Sciences and Statistical and Applied Mathematical Sciences Institute.

**Sally C. Morton**, for sustained thoughtful leadership of the ASA as its 2009 president, as a representative to other organizations, and as a member of the Development Committee; for commitment to maintaining the relevance of the ASA to applied statisticians, as evidenced by the development of the Conference on Statistical Practice and the ASA’s accreditation program; for serving on and chairing numerous ASA committees; for editorial service on several journals, including as a founding editor of *Statistics and Public Policy*; and for advancing statistical methodology through service on National Academies committees and the Patient-Centered Outcomes Research Institute.

### MORE ONLINE

Didn’t make it to Seattle? See the

sites:

JSM 2015 in pictures:

<http://bit.ly/1Mob95f>

JSM 2015

photo booth:

[www.photoboothery.com/](http://www.photoboothery.com/)  
[Photobooth/American-Statistical](http://Photobooth.American-Statistical)



ASA inducted 62 new Fellows from 24 U.S. states, DC, and six countries at JSM 2015.

Each year, ASA Fellows are nominated by the membership and selected by the ASA Committee on Fellows. This year, the honorees hail from 24 U.S. states, the District of Columbia, and six countries. The following 62 ASA Fellows were inducted this year:

Chul Ahn, <i>UT Southwestern Medical Center</i>	Duncan K.H. Fong, <i>The Pennsylvania State University</i>	Jodi Lapidus, <i>Oregon Health &amp; Science University</i>	Haipeng Shen, <i>The University of North Carolina at Chapel Hill and University of Hong Kong</i>
Girish Arun Aras, <i>Amgen Inc.</i>	Andrzej Galecki, <i>University of Michigan</i>	Yoonkyung Lee, <i>The Ohio State University</i>	Karan P. Singh, <i>University of Alabama at Birmingham</i>
John Aston, <i>University of Cambridge</i>	Daniel Alva Griffith, <i>The University of Texas at Dallas</i>	James D. Leeper, <i>The University of Alabama</i>	Robert D. Small, <i>Sanofi Pasteur</i>
Subhash C. Bagui, <i>The University of West Florida</i>	Yongtao Guan, <i>University of Miami</i>	Bing Li, <i>The Pennsylvania State University</i>	Victor Solo, <i>University of New South Wales</i>
Raymond P. Bain, <i>Merck Research Laboratories</i>	Susan Halabi, <i>Duke University</i>	Gang Li, <i>Johnson &amp; Johnson</i>	Catherine A. Sugar, <i>University of California at Los Angeles</i>
Peter M. Bentler, <i>University of California at Los Angeles</i>	John Joseph Hanfelt, <i>Emory University</i>	Peter V. Miller, <i>U.S. Census Bureau</i>	Fengzhu Sun, <i>University of Southern California</i>
Bruce Binkowitz, <i>Merck &amp; Co. Inc.</i>	Johanna Hardin, <i>Pomona College</i>	John P. Morgan, <i>Virginia Tech</i>	Jürgen Symanzik, <i>Utah State University</i>
Erin E. Blankenship, <i>University of Nebraska-Lincoln</i>	Ofer Harel, <i>University of Connecticut</i>	Daniel John Nordman, <i>Iowa State University</i>	Peter F. Thall, <i>MD Anderson Cancer Center</i>
Ørnulf Borgan, <i>University of Oslo</i>	David R. Hunter, <i>The Pennsylvania State University</i>	Art B. Owen, <i>Stanford University</i>	Abdus S. Wahed, <i>University of Pittsburgh</i>
Frank Bretz, <i>Novartis</i>	Linda A. Jacobsen, <i>PRB</i>	Frank Potter, <i>Mathematica Policy Research</i>	Ying Wei, <i>Columbia University</i>
Eric Chicken, <i>Florida State University</i>	Timothy D. Johnson, <i>University of Michigan</i>	Fernando Andrés Quintana, <i>Pontificia Universidad Católica de Santiago</i>	Hadley Wickham, <i>RStudio</i>
Kennon R. Copeland, <i>NORC at the University of Chicago</i>	Timothy P. Johnson, <i>University of Illinois at Chicago</i>	Paul J. Rathouz, <i>University of Wisconsin</i>	Brian Jonathan Williams, <i>Los Alamos National Laboratory</i>
Jill A. Dever, <i>RTI International</i>	Mary J. Kwasny, <i>Northwestern University</i>	Daniel Bryant Rowe, <i>Marquette University</i>	Diane K. Willimack, <i>U.S. Census Bureau</i>
Vanja Dukic, <i>University of Colorado at Boulder</i>	Mary Beth Landrum, <i>Harvard Medical School</i>	Mary Dupuis Sammel, <i>University of Pennsylvania</i>	Keying Ye, <i>The University of Texas at San Antonio</i>
Michael D. Escobar, <i>University of Toronto</i>		Richard J. Samworth, <i>University of Cambridge</i>	Grace Y. Yi, <i>University of Waterloo</i>
		Jaya M. Satagopan, <i>Memorial Sloan Kettering Cancer Center</i>	Hao Helen Zhang, <i>The University of Arizona</i>
			Jun Zhu, <i>University of Wisconsin-Madison</i>

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

### Samuel S. Wilks Memorial Award

The Wilks Memorial Award honors the memory and distinguished career of Sam Wilks by recognizing outstanding contributions to statisticians who carry on the spirit of his work. The 2015 honoree is **James O. Berger**, Duke University professor of statistics. Berger has made fundamental contributions to the foundations of statistics and statistical decision theory.

### Gottfried E. Noether Awards

The Noether awards were named after the late Gottfried Emanuel Noether, professor at the University of Connecticut, as a tribute to his memory. The Senior Scholar Award recognizes a distinguished researcher or teacher who supports research in nonparametric statistics. The Young Researcher Award is presented to an accomplished young researcher to promote research and teaching in nonparametric statistics.

The 2015 Senior Scholar Award honoree is **Willem Rutger van Zwet** of Leiden University. He was honored for outstanding contributions to the theory, application, and teaching of nonparametric statistics.

The 2015 Young Researcher Award honoree is **Han Liu**, assistant professor of operations research and financial engineering at Princeton University. Liu was honored for his outstanding early career contributions to nonparametric statistics.

### Outstanding Statistical Application Award

Each year, the ASA recognizes the author(s) of a paper that is an outstanding application of statistics in the physical, biological, or medical sciences. The 2015 honorees are **Anne R. Cappola**, associate professor of medicine at the University of Pennsylvania Perelman School of Medicine; **Wensheng Guo**, University of Pennsylvania professor of biostatistics; **Ziyue Liu**, assistant professor of biostatistics at the Indiana University Schools of Public Health



President's Invited Address presenter  
Christine H. Fox of Johns Hopkins  
University Applied Physics  
Laboratory speaks at JSM 2015.

and Medicine; and **Leslie J. Crofford**, professor of medicine and of pathology, microbiology, and immunology at Vanderbilt University. They were honored for their paper titled "Modeling Bivariate Longitudinal Hormone Profiles by Hierarchical State Space Models," published in the *Journal of the American Statistical Association* (Volume 109, Issue 505).

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

Established through a gift from the family of Wilfrid J. Dixon, this award recognizes outstanding contributions to the practice of statistical consulting. The 2015 honoree is **Janet Wittes**, president and founder of Statistics Collaborative, Inc. (SCI), a Washington, DC-based consultancy. She founded SCI in 1990 after earning a doctorate from Harvard University.

### Jackie Dietz Best Journal of Statistics Education Paper Award

This award, established in 2011, is given annually to the best paper in the *Journal of Statistics Education* in the previous year. It is named after the founding editor of the journal. The 2015 honorees are **Jennifer J. Kaplan**, University of Georgia assistant professor of statistics; **John Gabrosek** and **Phyllis Curtiss**, Grand Valley State University professors of statistics; and **Christopher J. Malone**, assistant professor of statistics at Winona State University. They were recognized for their paper titled "Investigating Student Understanding of Histograms" (Volume 22, Number 2).

### Waller Awards

The Waller Distinguished Teaching Career and Waller Education awards were established with a contribution





from retired ASA Executive Director Ray Waller and his wife, Carolyn. The former recognizes an individual for sustained excellence in teaching and statistics education, and the latter honors an individual for innovation in the instruction of elementary statistics.

The Waller Distinguished Teaching Career Award honoree is **Robert Stephenson**, professor of statistics at Iowa State University.

The Waller Education Award honoree is **Rebecca Nugent**, professor of statistics at Carnegie Mellon University.

### W.J. Youden Award

The W.J. Youden Award in Interlaboratory Testing recognizes the authors of publications/papers who make outstanding contributions to the design and/or analysis of interlaboratory tests or who describe ingenious approaches to the planning and evaluation of data from such tests. The



Rebecca Andridge of The Ohio State University talks about her poster, "Topics on General Methodology in Public Health: Imputing Estrogen Receptor Status in a Population-Based Cancer Registry: A Sensitivity Analysis."



Kathryn Crane of John F. Kennedy Catholic High School discusses the history of banned books during the late-breaking session, The VA Secretary Bans a Statistics Book.

2015 honorees are **Alexander Franks**, statistics doctoral student at Harvard University; **Gábor Csárdi**, postdoctoral research associate in the Harvard University Department of Statistics; **D. Allan Drummond**, assistant professor of biochemistry and molecular biophysics at The University of Chicago; and **Edoardo M. Airolidi**, Harvard University associate professor of statistics, for their paper titled "Estimating a Structured Covariance Matrix from Multilab Measurements in High-Throughput Biology," published in the *Journal of the American Statistical Association* (Volume 110, Issue 509).

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

The Karl E. Peace award is bestowed upon a distinguished individual who has made substantial contributions to the statistical profession that has led to direct ways to improve the human condition. The 2015 honoree is **James J. Cochran**, professor of applied statistics at the University of Alabama.

### Wray Jackson Smith Scholarship

The ASA's Government Statistics Section and Social Statistics Section present this scholarship annually in memory of Wray Jackson Smith, a founding member of the Government Statistics Section and longtime contributor to federal statistics. It rewards promising young statisticians for their diligence and encourages them to consider a future in government statistics. This year's scholarship honoree is **Jonathan Auerbach**, a doctoral student at Columbia University.

Be sure to check the section and chapter announcements for additional award honorees. Also, visit the ASA's list of awards and scholarships at [www.amstat.org/awards/awardscholarships.cfm](http://www.amstat.org/awards/awardscholarships.cfm) and nominate a member you would like to see honored for their work at next year's JSM in Chicago. ■

# U.S. Chief Data Scientist Highlights Role of Statistics in Data Science

In a recorded message to attendees of the 2015 Joint Statistical Meetings, U.S. Chief Data Scientist DJ Patil spoke about why the work of statisticians is so critical to the country and urged more multidisciplinary collaboration. Saying statisticians are the backbone of how the United States has dealt with data for centuries and citing their contributions to innovation, Patil noted a new opportunity to become increasingly data-driven through greater collaboration among the many disciplines making up data science.

On the question of what to call yourselves—statisticians, data scientists, economists, ...—Patil returned to the importance of working together to transform data into insight and wisdom, and, ultimately, better policy and evaluation of policy. He also noted the potential to, for example, create the next generation of health care and yield more benefit from data to local communities.

Speaking to students, Patil congratulated them on attending a research conference and implored them to treasure this time. He suggested students consider public service, a rewarding career



Video by Sara Davidson

Chief Data Scientist DJ Patil recorded a message for JSM attendees about the importance of statistics.

given the scope and impact of the problems to be addressed, especially with a statistics background. Patil also noted the many amazing statisticians in federal service. ■

**MORE ONLINE**  
Watch DJ Patil's video message to attendees on YouTube at <http://bit.ly/1hSvBL>.

## SOCIAL MEDIA AT #JSM2015



**kayleahaynes**

At JSM I answered some questions, hunted for a fish on a daily basis and took selfies with companies as part of the JSM challenge and ended up coming 4th winning a Jambox speaker! Who said conferences aren't fun!  
[@amstatnews](#) [#winning](#)  
[#JSM2015](#) [#nomakeup Sundays](#).



**Trevor Butterworth** • [@Butterworthy](#)  
One of the most important takeaways from [#JSM2015](#): data analysts need statisticians and vice versa. There'll be derp to pay otherwise.



**Derek Jedamski** • [@D\\_Jedamski](#)  
[@JennyBryan](#) describes data in school as "teddy bear," real world data more like "grizzly bear w/ salmon blood dripping from mouth" [#JSM2015](#)



**Chris Volinsky** • [@statpumpkin](#)  
When Terry Speed comes and sits in the front row when you are about to speak [#rcatladies](#) [#JSM2015](#)



For more [#JSM2015](#) tweets, check out <http://storify.com/AmstatNews/joint-statistical-meetings>.



**Julian Wolfson**  
• [@DrJWolfson](#)

This year, I'm attending the Joint Sibling Meetings instead of [#JSM2015](#)



**Aaron Fisher** • [@ajfishr](#)  
Great talk by [@ReginaNuzzo](#)- feeding "punchy" quotes about uncertainty to journalists can increase profile of statistics in science writing

**Regina Nuzzo**

• [@ReginaNuzzo](#)  
Exactly! [#JSM2015](#)



Meeting Within a Meeting participants included 35 high-school and 15 middle-school teachers, administrators, and math educators.

## Statistics Workshops for Math and Science Teachers Held in Seattle

Katherine Halvorsen, MWM Program Chair, and Rebecca Nichols, ASA Director of Education

The American Statistical Association sponsored Meeting Within a Meeting (MWM)—a two-day statistics workshop for middle- and high-school mathematics and science teachers—August 11–12 at the 2015 Joint Statistical Meetings in Seattle, Washington.

This year, 35 high-school and 15 middle-school teachers, administrators, and mathematics educators attended workshops that addressed statistical concepts taught in middle and high school. MWM workshops emphasize the growth of statistical literacy and thinking as teachers explore problems that require them to formulate questions; collect, organize, analyze, and draw conclusions from data; and apply basic concepts of probability. A follow-up program is planned that will help keep the teachers who attended in contact with the ASA via webinars and email.

The primary goals of the MWM 2015 program ([www.amstat.org/education/mwm](http://www.amstat.org/education/mwm)) were to introduce middle- and high-school math and science teachers to the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report: A Pre-K–12 Curriculum Framework* ([www.amstat.org/education/gaise](http://www.amstat.org/education/gaise)) and statistical content of the Common Core

Mathematics Standards (adopted by most states, including Washington, [www.corestandards.org/read-the-standards](http://www.corestandards.org/read-the-standards)), as well as provide an opportunity for teachers to discuss and apply these data analysis and statistical concepts. A secondary goal was to encourage cooperation between mathematics and science teachers in the teaching of statistics.

The MWM program is designed to enhance educators' understanding of statistics and provide them with hands-on activities they can use in their own classrooms to strengthen the teaching of statistics in their schools.

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

### REGISTER FOR 2016

Do you know K–12 mathematics or science teachers who are interested in enhancing their understanding and teaching of statistics? Encourage them to register for the 2016 workshops. Further information will be available at [www.amstat.org/education/mwm](http://www.amstat.org/education/mwm). There are also fliers about K–12 statistics education programs and resources at [www.amstat.org/education](http://www.amstat.org/education).



Photo by Eric Sampson

ASA President David Morganstein talks to Meeting Within a Meeting participants.

## Making It Happen

**Katherine Halvorsen** planned the MWM program, while **Rebecca Nichols**—ASA director of education—managed the website, registration and evaluation procedures, and logistics of setting up and advertising the conference.

**Marcia Ciol, June Morita, and the Puget Sound Chapter** were helpful in spreading the word among Washington educators.

MWM 2015 presenters included ASA/NCTM committee chair **Chris Franklin** (University of Georgia), ASA/NCTM committee past-chair **Patrick Hopfensperger** (retired high-school teacher), **Catherine Case** (University of Florida), and MWM program chair **Katherine Halvorsen** (Smith College). Additionally, ASA President **David Morganstein**, ASA President-elect **Jessica Utts**, ASA Executive Director **Ron Wasserstein**, and Puget Sound Chapter members welcomed the attendees.

**The Puget Sound Chapter** sponsored half the registration fee for the first 20 teachers who registered for the workshop and the Biopharmaceutical Section sponsored half the registration fee for four teachers.

**The Martha Aliaga MWM Scholarship**—a fund in memory of Martha Aliaga, former ASA director of education who created the Meeting Within a Meeting Statistics Workshop for Math and Science Teachers—provided support for additional registration fee reimbursement to help teachers attend the workshop.

The first MWM workshop was held in Salt Lake City, Utah, in 2007 and focused on middle-school math and science teachers. Its success led Martha Aliaga, former ASA director of education and creator of MWM, to recommend expanding the Denver MWM workshop in 2008 to a two-day format that included separate strands for K–4, 5–8, and 9–12 teachers. MWM 2009 in Washington, DC, included parallel strands for K–4, 5–8, and 9–12 teachers on the first day with a field trip to the U.S. Census Bureau on the second day. MWM 2010 in Vancouver, BC, was the first international MWM workshop jointly sponsored by the ASA and Statistical Society of Canada. It included both U.S. and Canadian presenters and participants. MWM 2011 in Miami, Florida, and MWM 2012 in San Diego, California, included separate workshops for middle- and high-school teachers focused on the statistics content in the Common Core State Standards. Additionally in 2012, MWM participants could also choose to attend the International Census at School workshop for two additional days after MWM (<http://magazine.amstat.org/blog/2012/10/01/international-census-at-school>). In 2013, MWM was held after JSM at the ASA office in Alexandria, Virginia. In 2014, MWM was held at JSM in Boston.

Each workshop day of MWM 2015 consisted of three sessions and a closing period used to reflect on the day's work and provide comments about the program to the organizers. The workshop sessions were

preceded by an overview of the GAISE report and Common Core standards relevant to the audience.

Middle-school teachers attended the workshop sessions on both Tuesday and Wednesday and participated in discussions about formulating statistical questions; univariate analysis of measurement data focusing on measures of center and spread; using random sampling, bivariate measurement data analysis, and categorical data analysis; investigating patterns in data; and free K–12 statistics education resources, including the ASA Poster Competition. The MWM program schedule is available at [www.amstat.org/education/mwm](http://www.amstat.org/education/mwm).

The three sessions in the high-school program on Tuesday included discussions about statistical questions and study design, investigating bivariate data, and using randomization tests to make inferences and justify conclusions. High-school teachers were given the option on Wednesday

to attend the second day of the middle-school workshop (to see what should be taught before students reach high school) or attend statistics education sessions at the Joint Statistical Meetings. Some also attended the Beyond AP Statistics (BAPS) Workshop ([www.amstat.org/education/baps](http://www.amstat.org/education/baps)), which was held in conjunction with JSM on August 12.

All teachers attending MWM were given a certificate of participation issued by the ASA. Teachers who register may receive one semester graduate credit hour through Adams State University.

The ASA will provide follow-up activities throughout the 2015–2016 school year, including webinars that will continue to be archived at [www.amstat.org/education/webinars](http://www.amstat.org/education/webinars). Questions should be directed to Rebecca Nichols, ASA director of education, at [rebecca@amstat.org](mailto:rebecca@amstat.org) or (703) 684-1221, Ext. 1877. ■

## Educational Ambassador from Bangladesh Attends Courses

The 2015 ASA educational ambassador, Mohammad Shafiqur Rahman, associate professor of applied statistics at the University of Dhaka, Bangladesh, attended the Joint Statistical Meetings in Seattle to participate in Continuing Education (CE) courses.

The Educational Ambassador Program is an ASA outreach effort launched by the Committee on International Relations in Statistics to foster international collaboration and enhance statistics education worldwide. The program subsidizes an ambassador from a developing country to attend JSM and take CE courses. It also provides a one-year ASA membership.

Candidates are required to hold a PhD in statistics, an interest in teaching, and be open to study in new areas of research. After attending CE courses in an emerging area of research, the educational ambassador returns to his or her country and teaches the subject matter learned in the CE course(s) within the next year to at least 10 students.

“This is an excellent initiative taken by ASA for enhancing statistics education globally,” commented Rahman. “I benefited by attending four courses on advanced topics in statistics and hope the statistics learners in Bangladesh will also benefit by attending similar courses and workshops that I am going to arrange for them.”



Photo by Eric Sampson

ASA President David Morganstein with 2015 Educational Ambassador Mohammad Shafiqur Rahman

Since the program launch in 2005, the Committee on International Relations in Statistics has chosen educational ambassadors from Argentina, Ethiopia, Vietnam, Morocco, Armenia, Costa Rica, Botswana, Colombia, and Bangladesh. ■

Monsanto contributed \$1,000 to the Educational Ambassador Program, which helped provide additional distance learning for the 2015 educational ambassador and his students. With support such as this, the ASA is able to enhance international statistical education.

**Xiao-Li Meng**, dean of the Harvard University Graduate School of Arts and Sciences, recently addressed the administration's Big Data Senior Steering Group (BDSSG) with a talk titled "Statistical Paradises and Paradoxes in Big Data."

The BDSSG is a group of several dozen program officers from NSF, NIH, and many other federal agencies that was formed in the build-up to the 2012 launch of the White House Big Data Research and Development Initiative and meets monthly to continue to facilitate and further the goals of the initiative.

Meng's invitation to speak resulted from the ASA's outreach to Chaitany Baru, the then-new senior adviser for data science in the NSF Directorate for Computer and Information Science and Engineering, about the ASA whitepaper "Discovery with Data: Leveraging Statistics with Computer Science to Transform Science and Society." Meng has been invited back to NSF for another presentation this fall.

In his presentation, Meng highlighted important statistical concepts in Big Data and started with the "paradise" of the huge growth in statistics students, the growing appreciation for statisticians, the many opportunities for methodological research, and emerging theoretical foundations. His slides are available at [www.amstat.org/misc/XiaoLiMengBDSSG.pdf](http://www.amstat.org/misc/XiaoLiMengBDSSG.pdf). ■



Meng

Nell Sedransk, acting director of the National Institute of Statistical Sciences (NISS), announced **Stephen E. Fienberg** as recipient of the 2015 Jerome Sacks Award for Cross-Disciplinary Research during a reception at the Joint Statistical Meetings in Seattle, Washington.

Fienberg's citation reads: "For a remarkable career devoted to the development and application of statistical methodology to solve problems for the benefit of society, including aspects of human rights, privacy and confidentiality, forensics, survey and census-taking, and more; and for exceptional leadership in a variety of professional and governmental organizations, including in the founding of NISS."

The Jerome Sacks Award for Cross-Disciplinary Research was created in 2001 in honor of Jerome (Jerry) Sacks, founding director of NISS. As a Sacks award recipient, Fienberg receives \$1,000 and his name will be added to a plaque at NISS that lists all recipients of the award. ■

During his travels to visit family in India, ASA past-president **Sastry Pantula** met with India's president, Shri Pranab Mukherjee, at the Rashtrapati Bhavan, the official residence of the head of the state. Pantula was part of a special alumni group of the Indian Statistical Institute (ISI), Kolkata.

Mukherjee welcomed the ISI alumni to the Rashtrapati Bhavan and said the ISI is a leading institution in India for research, teaching,

and the application of statistics, natural sciences, and social sciences. He focused on the importance of statistics and the role ISI plays in financial planning in India.

For details, read the press release at <http://bit.ly/1LwhfVo> or see a video at <http://bit.ly/1W0vjXE>. ■

**John Eltinge** and **Jamie Nunnally** recently received the 2015 Distinguished Service Award from the National Institute of Statistical Sciences (NISS). Nell Sedransk, acting director of NISS, announced the awards August 10 at the NISS/SAMSI (Statistical and Applied Mathematical Sciences Institute) reception held at the 2015 Joint Statistical Meetings in Seattle, Washington.

The NISS Distinguished Service Award was established by the board of trustees in 2005 to recognize individuals who have given extraordinary service that significantly advances NISS and its mission.

Eltinge, who is associate commissioner for the Office of Survey Methods Research for the Bureau of Labor Statistics, received the award for bringing insight to and implementing the vision for NISS as a multi-sector institute, especially through his leadership in the Affiliates Program. He is a fellow of the American Statistical Association, a member of the Federal Committee on Statistical Methodology, an associate editor for *Survey Methodology* and the *Journal of Official Statistics*, and a former associate editor



Pantula



Fienberg

## Funding Opportunities for Statisticians Meeting



From left: Peter Kozel, National Institutes of Health; Michael Vogelius, National Science Foundation; Deborah Lockhart, National Science Foundation; Cheryl Eavey, National Science Foundation; Greg Farber, National Institute of Mental Health and National Institutes of Health; Dave Higdon, chair of the ASA Committee on Funded Research, Jason Gerson, Patient Centered Outcomes Research Institute; and Stephen Marcus, National Institutes of Health and National Institute of General Medical Sciences

Dave Higdon (at podium), chair of the ASA Committee on Funded Research, stands with the seven representatives of federal funding agencies who presented at the Funding Opportunities for

Statisticians meeting during JSM in Seattle.

The slides from many of the presentations are available on the ASA community site: <http://bit.ly/1NuBP5Z>. ■

for the *Journal of the American Statistical Association* and *The American Statistician*.

Nunnelly, who is communications director for NISS and SAMSI, received the award for her role in increasing the visibility of NISS, engaging the next generation of statisticians in NISS, and modernizing NISS communications, especially

through the design of the new website. Nunnelly has been in the communications industry since 1985. She has worked for Fortune 500 companies such as General Motors and Tropicana Products, Inc. and for nonprofit organizations. For more than a decade, she worked in the economic development industry for the Research Triangle Regional

Partnership and Research Triangle Foundation of North Carolina. She also published a quarterly magazine called *The Park Guide*.

Eltinge and Nunnelly's names will be added to a plaque displayed in the lobby of the NISS building in Research Triangle Park, which lists the names of all award recipients. ■

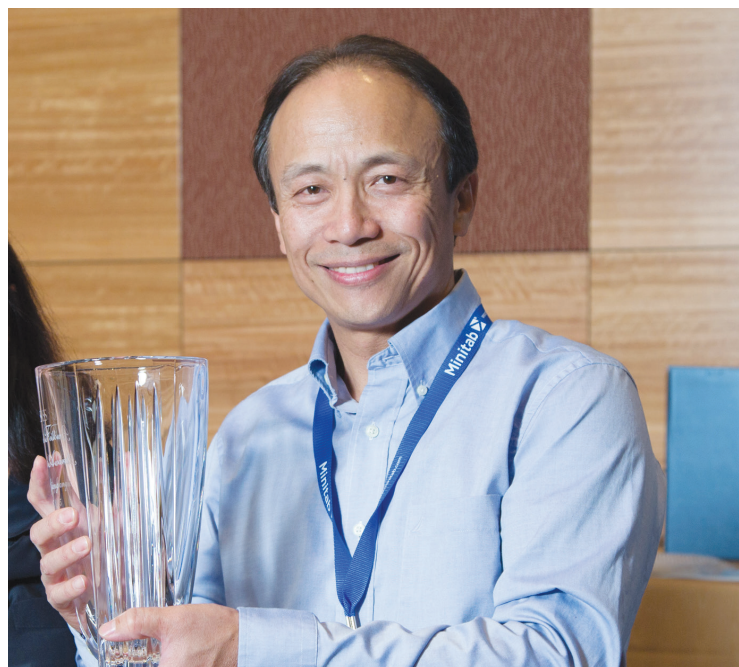
The National Institute of Statistical Sciences (NISS) initiated a new award to recognize the achievements of former postdocs. **Jiming Jiang**, professor of statistics at the University of California, Davis, and **Laura J. Steinberg**, professor in the college of engineering and computer science at Syracuse University received this award, which was presented at the NISS-SAMSI reception during the 2015 Joint Statistical Meetings in Seattle, Washington.

NISS started mentoring postdoctoral fellows and associates in 1993. Since that time, more than 70 people have been postdocs at NISS.

Jiang received the NISS Postdoctoral Achievement Award for “Honoring his distinguished career and excellence in leadership through research, through education, and through example as a role model for the profession of statistics,” said Nell Sedransk, acting director of NISS, during her presentation of the award.

Jiang graduated with a PhD in statistics from the University of California, Berkeley, and earned his bachelor’s and master’s degrees in mathematics and probability and statistics from Peking University. After graduating from Berkeley, Jiang spent a summer as a postdoctoral associate at NISS. He later held academic positions at Case Western Reserve University and the University of Nebraska before being appointed as an associate professor in 2001 and director of the statistical laboratory at UC Davis from 2004–2007. He became professor in 2007.

Jiang has published more than 80 peer-reviewed papers and three books. He is particularly well known for his work on generalized linear mixed models, which was the subject of his first



Jiming Jiang accepts the NISS Postdoctoral Achievement Award.

book. Other interests include small area estimation with applications to survey data, asymptotics and large sample statistics, and model selection.

Jiang has served on the editorial boards of several of the most highly regarded journals in statistics, including the *Annals of Statistics*, *Journal of the American Statistical Association*, and *Journal of Multivariate Analysis*. He is an elected member of the International Statistical Institute and a Fellow of both the Institute of Mathematical Statistics and the American Statistical Association.

Steinberg received the award for “Honoring her distinguished career and impact through her leadership in realizing a vision for the intersection of environmental science and statistics,” said Sedransk.

Steinberg credits her experience at NISS with broadening her ability to apply statistics to interdisciplinary problems. “Much of my growth as a researcher and collaborator came from the intense research environment at NISS,”

Steinberg says. “I had a set of incredibly talented postdoc peers to work with and the privilege of being personally mentored by director, Jerry Saks, and associate director, Alan Karr.”

Steinberg is professor and special assistant to the chancellor at Syracuse University, where she previously served as dean of the college of engineering and computer science. In her new, university-wide assignment, she will conduct a comprehensive assessment of the university’s campus, planning, design, and construction operations.

Prior to her becoming dean at Syracuse University, Steinberg served as professor and chair of environmental and civil engineering at Southern Methodist University. She earned her PhD in environmental engineering from Duke University and was a NISS postdoctoral fellow from 1993–1995. Her areas of expertise include environmental modeling and policy, diffusion of innovation, and critical infrastructure protection. ■



# sectionnews

## Biometrics

*Edited by Sheng Luo, Biometrics Section Publications Officer*

The Biometrics Section held its annual business committee meeting at JSM in Seattle. To read the complete minutes of the meeting, visit the section website at [www.bio.ri.ccf.org/Biometrics](http://www.bio.ri.ccf.org/Biometrics).

### Applications Invited for Byar, Travel Awards

The section is seeking applications for the 2016 David P. Byar Young Investigator Award. This annual award is given to an early-stage investigator for best paper to be presented at JSM. The winner will receive \$2,000.

In addition to the Byar Award, the section may provide additional travel awards of \$1,000 each to the authors of other outstanding papers submitted to the competition.

All applicants must meet the following criteria:

- Have held a doctorate in statistics, biostatistics, or a related quantitative field for three or fewer years as of April 1 of the current year or be enrolled in a doctoral program in statistics or biostatistics and in active pursuit of a doctoral degree.
- Be a current member of the Biometrics Section (applicant may join at the time of submission for a \$5 annual membership fee [\$3 for students]). Note that membership in the ASA does not automatically confer section membership.
- Be first author of the paper. The paper may be unsubmitted, submitted, or under review, but may not have appeared in a journal online or in print at the time of the application or have been accepted for publication as of December 1, 2015.
- Be scheduled to present the same paper submitted for the award at the 2016 Joint Statistical Meetings in Chicago as a talk or poster.
- Not have submitted the paper to any other ASA section 2016 student or early-stage investigator award competition.
- Have not been a previous Byar award or Biometrics section travel award winner.

Applicants must submit their JSM abstracts to the Biometrics Section, which will organize a series of topic-contributed sessions to highlight the Byar award and travel awards winners.

Applicants also must complete their application by submitting the following materials:

- A current CV
- A one-page cover letter that summarizes the paper's content and contribution
- One copy of the paper

The paper can be up to 25 double-spaced pages (with a maximum of 25 lines per page), including references, but not including tables and figures.

All materials must be submitted electronically between November 1 and December 1 at [www.bio.ri.ccf.org/Biometrics/dbyar.htm](http://www.bio.ri.ccf.org/Biometrics/dbyar.htm). Questions should be sent to the Biometrics Section chair, Diana Miglioretti, at [dmiglioretti@ucdavis.edu](mailto:dmiglioretti@ucdavis.edu).

Winners will be announced by January 15, 2016, and should contact the 2016 section JSM program chair, Dipankar Bandyopadhyay, at [dbandyop@umn.edu](mailto:dbandyop@umn.edu) and submit a topic-contributed abstract for JSM 2016. ■

## Statistics in Epidemiology

The Section on Statistics in Epidemiology (SIE) invites applications from young investigators who will present their papers at JSM 2016, July 30 to August 4, in Chicago. The awards honor the best papers by young investigators in statistics in epidemiology presented at JSM.

The competition is open to all current graduate students in statistics, biostatistics, and epidemiology, as well as recent graduates who received their degrees no earlier than December 31, 2013. Applicants also must be members of the ASA.

Each award consists of \$800 to help defray travel costs to JSM. Additionally, a reception will be held at the Chicago meeting to honor award recipients.

Preference will be given to papers with both methodological contributions and substantive epidemiological applications. Jointly authored papers are acceptable, but the applicant is expected to be the lead author and present the work at JSM 2016. The presentation may be in a regular session, speed session, or poster session. Further, the presentation does not have to be in a session sponsored by SIE,

nor must applicants be current members of SIE. The presentation at JSM must, however, correspond to the paper receiving the award.

Papers must be in PDF format with a 12-point font and one-inch margins. They also must be double-spaced and no longer than 20 pages (including tables and figures, excluding references). Failure to meet these criteria will result in disqualification without notification.

To apply for the award, submit a paper no later than November 15. Early submissions are encouraged. Along with the paper, include a cover letter stating where you are a current student or your year of graduation if you are a recent graduate. Submissions should be sent to section secretary/treasurer Susan Shortreed at [shortreed.s@ghc.org](mailto:shortreed.s@ghc.org). Questions about the award may be addressed to 2016 section chair Miguel Hernan at [mhernan@hsph.harvard.edu](mailto:mhernan@hsph.harvard.edu).

### 2015 Award Winners

The following are 2015 SIE Young Investigator Award winners:

- Jeffrey Boatman, University of Minnesota
- Amanda Koepke, Fred Hutchison Cancer Research Center
- Emily Mitchell, National Institute of Child Health and Human Development
- Ai Ni, The University of North Carolina
- Fei Wan, Group Health Research Institute ■

### Government Statistics

*Wendy Martinez, GSS Section Chair*

The Government Statistics Section sponsored their first data challenge in 2015. The contest—open to anyone, including college students and professionals from the private or public sectors—was considered a success.

Participants were challenged to analyze the U.S. Census Bureau's tract and block planning databases using any statistical and/or visualization tools and methods. Eight contestants participated; the following were chosen as winners:

- Professional: "Tailoring Outreach to Boost Mail Self-Response in Geographic Areas with Similar Low Response Rates," Darryl Creel, RTI
- Student: "Census Tract-Level Disparities: Examining Food Swamps and Food Deserts,"

Lucy D'Agostino McGowan and Alice Toll,  
Vanderbilt University

The Government Statistics Section will sponsor another data challenge in 2016. It will follow the same general format and be open to college students and professionals. For more information, visit the GSS website at [www.amstat.org/sections/sgovt](http://www.amstat.org/sections/sgovt). ■

### Physical and Engineering Sciences

*Greg Piepel, Industrial Speakers Program Chair*

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 for up to \$1,000 (previously \$500) to cover the expenses of the speaker's visit.

Speakers provide information to students about (i) what an applied statistician does; (ii) how they solve problems in science, engineering, technology, and business; and (iii) what non-technical skills are required to be successful as an applied statistician.

The Marquardt Industrial Speakers Program was established by SPES in the early 1990s to coordinate visits by experienced statisticians to universities and colleges across the country and 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](mailto:greg.piepel@pnnl.gov) or (509) 375-6911. ■

### Quality and Productivity

The following members of the ASA Section on Quality and Productivity were elected as ASA Fellows this year: Robert Small of Sanofi Pasteur and Keying Ye of The University of Texas, San Antonio.

Newly elected section officers are Ming Li of REANCON as chair-elect, Anne Hansen of Intel Corporation as program chair-elect, and Harold Dyck of California State University, San Bernardino as Council of Sections representative. Their terms will begin in 2016.

Nominations for chair-elect and program chair-elect are being sought for this November. The section is also looking for nominations for a publications chair-designate, webinar coordinator, and treasurer-designate.

For more information, contact Tony Ng at [ngh@mail.smu.edu](mailto:ngh@mail.smu.edu). ■

## Statistical Education

Jennifer J. Kaplan

The Statistical Education Section had a productive JSM 2015 under program chair Erin Blankenship, sponsoring or cosponsoring 11 invited panels/sessions, 10 topic-contributed panels/sessions, nine contributed paper sessions, one traditional poster session, two speed poster sessions, and five roundtables. Pat Humphrey will chair the section's JSM 2016 program, with Dalene Stangl serving as 2017 section program chair.

Past section chair James Albert and section member David Banks were honored with ASA Founders Awards. In addition, five section members were named ASA Fellows: Erin Blankenship, Johanna Hardin, Ofer Harel, Mary Kwasny, and Juergen Symanzik.

Other education awards were also announced: Rebecca Nugent won the Waller Education Award, W. Robert Stephenson won of the Waller Distinguished Teaching Career Award, and Webster West won the National Mu Sigma Rho 2015 William D. Warde Statistical Education Award.

Also recognized was Nancy Pfenning, who won the section's Ron Wasserstein Best Contributed Paper Award for her presentation at JSM 2014, "Statistics in Journalism: Guiding Students to Uncrunch the Numbers." The Jacqueline Dietz Award for the best

*Journal of Statistics Education* paper for 2014 was presented to Jennifer J. Kaplan, John Gabrosek, Phyllis Curtiss, and Chris Malone for their paper, "Investigating Student Understanding of Histograms."

In addition to the awards announced at JSM, section chair-elect Nicholas Horton was awarded the Robert V. Hogg Award for Excellence in Teaching Introductory Statistics by the MAA SIGMAA on Statistics Education at the 2015 Joint Mathematics Meetings.

Winners of the spring 2015 election for the section are chair-elect Paul Roback, secretary/treasurer Ann Cannon, and executive committee members at large Ulrike Genschel and Brenda Gunderson.

During the business meeting, the committee charged with updating the *Guidelines for Assessment and Instruction in Statistics Education (GAISE) College Report* requested feedback from the community to ensure the updated guidelines reflect broad points of view. For information about the *GAISE College Report* update and a link to the feedback survey, visit [www.causeweb.org/webinar/teaching/2015-07/index.php](http://www.causeweb.org/webinar/teaching/2015-07/index.php).

Planned Statistical Education Section activities for the remainder of the year include a review of the section's bylaws, coordination with MAA to review guidelines for second courses in statistics and theoretical statistics/mathematical statistics, and the creation of a section officers' handbook. ■

Calling all Statistical Practitioners and Data Scientists ...

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San Diego, California  
February 18–20 **2016**

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](http://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](http://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](mailto: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](http://www.amstat.org/jobweb).

## California

■ Genentech, Inc. is seeking a senior statistical scientist in their south San Francisco, California, headquarters. The qualified candidate will be aligned with one or more cross-functional medical affairs teams to provide statistical and analytical leadership in the development and execution of RWD strategies, plans and projects to address medical questions. PhD plus four years' experience or master's degree plus seven years' experience required. <http://bit.ly/1JU4eO6>. EOE.

■ RAND Corporation is seeking PhD statisticians for exciting opportunities to collaborate on multi-disciplinary public policy research projects. Openings exist for recent graduates and experienced statisticians. See our ad in the September *Amstat News* for details or go to [www.rand.org/statistics](http://www.rand.org/statistics). Applications received by December 15, 2015, will receive priority. Applications must be



## HARVARD UNIVERSITY – DEPARTMENT OF STATISTICS

The Department of Statistics at Harvard University seeks to appoint several positions at the tenured (Full Professor) level for the 2016-17 academic year. We seek exceptionally strong candidates in any field of statistical methodology and/or probability, as well as in any interdisciplinary areas where innovative and principled use of statistics and/or probability is of vital importance.

The appointee will teach and advise students at the undergraduate and graduate levels and will be expected to develop innovative courses at both levels. The appointee will also undertake administrative responsibilities in the department and be expected to participate in the intellectual life of the Division of Science, the University and the wider scholarly community.

The Department is keenly interested in diversifying its faculty and encourages applications from diverse candidates, including from women and minorities.

Please submit the following materials through the ARIeS portal (<https://academicpositions.harvard.edu/postings/6304>): cover letter, *curriculum vitae*, evidence of teaching excellence (e.g., course evaluations, if available), statements of teaching and research interests, representative publications and contact information for at least five references.

Letters of nomination from third parties are also welcome.

Submission of an application by November 1, 2015, will ensure consideration during the current academic year.

**Contact Information:** Search Committee, c/o Betsey Cogswell, Department of Statistics, 7<sup>th</sup> Floor, Science Center, Harvard University, Cambridge, MA 02138-2901. Email: [cogswell@stat.harvard.edu](mailto:cogswell@stat.harvard.edu).

Harvard is 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.

## Statistical Career Opportunities with Westat

Westat is an employee-owned corporation headquartered in Rockville, Maryland. We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, Westat is a leader in the statistical services field.

We are currently recruiting for the following positions:

**Senior Survey Sampling Statistician** This position requires a master's degree in survey sampling, statistics, survey research, or a related field with 12 or more years in sample survey work or a Ph.D. in survey sampling, statistics, survey research, or a related field and 10 or more years in sample survey work.

**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 degree coupled with at least 10 years of experience in statistical or other data-intensive computing. Five years of supervisory experience is also required.

**Statistical Analyst** This position requires a master's degree in statistics, survey research, or other related quantitative field coupled with 5 or more years in sample survey analysis or a Ph.D. in statistics, survey research, or other related quantitative field and 3 or more years in sample survey analysis.

**Survey Sampling Statistician** This position requires a master's degree in survey sampling, statistics, survey research, or a related field with 5 or more years in sample survey work or a Ph.D. in survey sampling, statistics, survey research, or a related field and 3 or more years in sample survey work.

**Data Scientist** The position requires candidates to have a computational and applied statistical background. At a minimum a master's degree in statistics, survey methodology, computer science, or a related applied quantitative social science field coupled with at least 3 years of experience in statistical computing.

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](http://www.westat.com/careers).

[www.westat.com](http://www.westat.com)

submitted online following the instructions at [www.rand.org/statistics/jobs.html](http://www.rand.org/statistics/jobs.html) (search "PhD Statistician"). Send questions to [Lou\\_Mariano@rand.org](mailto:Lou_Mariano@rand.org). EO/AA Employer.

### Massachusetts

■ Tenure-track assistant/associate professor, mathematical sciences. Bentley University, a private business university outside Boston, invites applications for a full-time position in applied statistics or related field for fall 2016. Bentley offers degrees in mathematical sciences, actuarial science, MS in business analytics, and a business PhD. Doctoral degree required in applied statistics or a related field by fall 2016. Interested applicants visit: [www.bentley.edu](http://www.bentley.edu). Bentley University is an Equal Opportunity Employer, building strength through diversity.

■ Boston University mathematics and statistics invites applications for

### Faculty Position (Tenured/Tenure-Track)

## Department of Biostatistics

## University of Texas M.D. Anderson Cancer Center

The Department of Biostatistics at M.D. Anderson Cancer Center is seeking candidates for one tenured faculty position at the associate professor level but will consider outstanding candidates at all. The department invites applications from qualified individuals able to establish themselves as research leaders and demonstrate prowess in interdisciplinary collaborative scientific research.

We are particularly interested in researchers who can contribute to cancer biomarker discovery and validation in risk assessment, early detection and diagnosis, and prognosis, and/or building statistical coordinating centers conducting this area of research. A Ph.D. in statistics, biostatistics or a related field is required.

The Department of Biostatistics has 23 faculty members and 40 masters and doctoral level research analysts and 13 postdoctoral fellows. Faculty members are actively involved in collaborative and methodological research in such diverse areas as clinical trial design, computer-intensive statistical methodology, Bayesian methodology, decision models, cancer screening and early detection, bioinformatics, genomic pathway analysis, integrative modeling of multiple types of complex data including high-dimensional genomic data, functional data analysis, image data analysis, longitudinal data analysis, survival analysis, statistical genetics, and behavioral and social statistics. Faculty members also have opportunities to supervise graduate students in the affiliated biostatistics doctoral programs at the University of Texas, Texas A&M University, and Rice University. The department is supported by strong resources, which includes an active quantitative research computing team with specialties in database design, web-based clinical trial support, scientific programming, and software engineering. Information about the department and programs offered can be found at <http://www3.mdanderson.org/>

depts/biostatistics/. Further questions regarding the position may be directed to Prof. Ziding Feng ([zfeng3@mdanderson.org](mailto:zfeng3@mdanderson.org)).

M.D. Anderson Cancer Center offers competitive salaries and an outstanding personal and professional benefits package. Houston is one of the world's most innovative and diverse cities, nurturing great neighborhoods, competitive private and public schools, an exceptional music and theater scene, highly acclaimed museums, international cuisine, and year-round outdoor recreational activities.

M. D. Anderson Cancer Center is an equal opportunity employer and does not discriminate on the basis of race, color, national origin, gender, sexual orientation, age, religion, disability or veteran status except where such distinction is required by law. All positions at The University of Texas M. D. Anderson Cancer Center are security sensitive and subject to examination of criminal history record information. MD Anderson Cancer Center is a smoke-free and drug-free environment.

Consideration of applications will continue until the positions are filled. Interested applicants should email a cover letter outlining the relevance of their research experience and interests to the position description, a curriculum vitae, a brief statement of current and proposed research plan, and have 3 letters of recommendation send to:

Faculty Search Committee  
Department of Biostatistics  
The University of Texas M.D. Anderson Cancer Center  
P.O. Box 301402  
Houston, TX 77230-1402  
Email: [biostat-search@mdanderson.org](mailto:biostat-search@mdanderson.org).

tenure-track statistics assistant professor. PhD required. Begins July 2016, pending final budgetary approval. Commitment to research and teaching both undergraduate and graduate level essential. Submit cover letter, CV, research statement, teaching statement, and four recommendation letters (one teaching): [www.mathjobs.org](http://www.mathjobs.org). Alternatively, submit materials: Statistics T-T Search, Mathematics/Statistics, Boston University, 111 Cummington Mall, Boston, MA 02215. Deadline 12/1/15. We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law. We are a VEVRAA Federal Contractor.

■ Boston University mathematics and statistics invites applications for a tenured statistics associate professor. PhD required. Begins 7/1/2016, pending final budgetary approval. Strong



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- Call us toll-free at (888) 231-3473



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## Biostatistics Faculty Leadership Positions:

### Data Coordinating Center (DCC) Network Project and Biostatistics Core for the Cancer Center

The Department of Biostatistics and Epidemiology at the Perelman School of Medicine at the University of Pennsylvania seeks candidates for an Associate or Full Professor position in either the non-tenure clinician-educator track or the tenure track. Track and rank will be commensurate with experience. Applicants must have a Ph.D. or equivalent degree.

- Data Coordinating Center (DCC) network project leadership
- Biostatistics Core leadership for the Cancer Center

A demonstrated track record as the principal investigator of methodological research supported by extramural grant funding is required for the tenure track. Review of applications will begin on September 30, 2015 and will continue to be accepted after this date, until the positions are filled. The expected start date is July 2016 or later.

Candidates for the DCC leadership position should have substantial experience designing and leading large, multicenter clinical research network projects, involving clinical trials and/or cohort studies, including oversight of data management systems and operations, preparation and presentation of reports to data monitoring committees, and development and implementation of ongoing quality control procedures. They should be knowledgeable about cutting-edge statistical issues related to the design and analysis of clinical trials and other longitudinal studies, such as adaptive designs, methods for missing data, analytical procedures for causal inference, and statistical monitoring approaches.

Candidates are expected to have a strong commitment to teaching and must demonstrate outstanding research productivity. Primary teaching responsibilities include participation in Penn's Center for Clinical Epidemiology and Biostatistics academic programs.

The Graduate Group in Epidemiology and Biostatistics, jointly with the Department of Statistics in the Wharton School, offers degree programs leading to both the Doctor of Philosophy (PhD) and Master of Science (MS) in Biostatistics.

The University of Pennsylvania, founded by Benjamin Franklin, is a world-class research institution, located near the heart of Philadelphia. All of Penn's 12 schools are located within walking distance of one another. The Penn Perelman School of Medicine is one of the top ranked medical schools in NIH funding.

We seek candidates who embrace and reflect diversity in the broadest sense. The University of Pennsylvania is an affirmative action/equal opportunity employer. Qualified applicants should send a cover letter indicating the specific position to which they are applying, curriculum vitae, three letters of reference, and a statement of research interests.

We seek candidates who embrace and reflect diversity in the broadest sense.

*The University of Pennsylvania is an EOE. Minorities/Women/Individuals with disabilities/Protected Veterans are encouraged to apply.*

Apply for this position online at: [https://www.med.upenn.edu/apps/faculty\\_ad/index.php/g303/d4029](https://www.med.upenn.edu/apps/faculty_ad/index.php/g303/d4029)

**Position Announcement:  
Tenure-Track Assistant Professorship  
Department of Mathematics and Statistics  
College of Arts and Sciences  
American University**



The Department of Mathematics and Statistics at American University (Washington, DC) invites applications for a full-time, tenure-track position at the rank of Assistant Professor beginning August 1, 2016.

Candidates should be effective teachers and must be strongly committed to excellence in scholarly research. An ideal candidate will have a facility with computation, and can identify specific prospects for on-campus collaboration, possibly interdepartmental. From a mathematician, we also seek a research program with roots in deep mathematics. From a statistician, we seek a familiarity with Bayesian modeling. We are open to researchers who ignore traditional disciplinary boundaries.

Applicants must have a PhD in a relevant discipline, and post-doctoral experience is preferred. Responsibilities include: establishing an internationally recognized research program, preferably in cooperation with other AU faculty; teaching and curriculum development, including engagement of students in research; and service to the department and to the wider university.

American University's areas of long-time strength or recent investment in related computational areas include computational and behavioral neuroscience, environmental science, public health, persuasive gaming, visualization, biostatistics, Big Data and analytics, and informatics.

Salary and benefits are competitive. Review of applications will begin immediately and will continue until the position is filled, subject to on-going budgetary approval. Applications received by December 1 will receive full consideration. Please submit applications via [mathjobs.org](http://mathjobs.org). Applicants should submit a cover letter explaining how they fit the criteria above, curriculum vitae, teaching statement, and research statement, and they should arrange for the submission of at least three letters of recommendation, at least one of which should address teaching ability. Please contact Linda Greene, Administrative Coordinator, at 202-885-3137 or [lgreene@american.edu](mailto:lgreene@american.edu) if you have any questions.

*American University is an equal opportunity, affirmative action institution that operates in compliance with applicable laws and regulations. The university does not discriminate on the basis of race, color, national origin, religion, sex (including pregnancy), age, sexual orientation, disability, marital status, personal appearance, gender identity and expression, family responsibilities, political affiliation, source of income, veteran status, an individual's genetic information or any other bases under federal or local laws (collectively "Protected Bases") in its programs and activities. American University is a tobacco and smoke free campus.*

commitment and record of teaching and research essential. Submit cover letter, CV, research statement, teaching statement, and four recommendation letters (one teaching) to [www.mathjobs.org](http://www.mathjobs.org). Alternatively, submit materials to: Statistics ASCP Search, Mathematics/Statistics, Boston University, 111 Cummington Mall, Boston, MA 02215. Deadline 12/1/2015. We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law. We are a VEVRAA Federal Contractor.

■ MIT mathematics department, Cambridge, Massachusetts, seeking to fill positions in statistics at levels of assistant professor or higher beginning July 2016 (for 2016–2017 year). Appointments based on exceptional research qualifications; appointees

## NC STATE UNIVERSITY

### Tenure-Track Faculty Positions

The Department of Statistics at North Carolina State University invites applications for three tenure track positions to begin in August 2016: one Assistant Professor and two open-rank positions. For outstanding candidates, the open-rank positions may be combined with named professorships.

Applicants must have a Ph.D. in Statistics or Biostatistics. Responsibilities include teaching, research, and doctoral student research supervision. Candidates for Associate or Full Professor must have an established record of funded research, collaboration, and exemplary teaching.

To apply for the Assistant Professor position, go to <https://jobs.ncsu.edu/postings/55131>, and for the open-rank positions, go to <https://jobs.ncsu.edu/postings/55266>.

Questions may be directed to the Search Chair, Dr. Ana-Maria Staicu ([stat\\_search@stat.ncsu.edu](mailto:stat_search@stat.ncsu.edu)).

### Non-Tenure Track Faculty Position - Teaching Assistant Professor

The Department of Statistics at North Carolina State University invites applications for a non-tenure track position at the Assistant Professor level to begin in August 2016.

Applicants must have a Ph.D. in Statistics or Biostatistics. Experience and excellence in teaching is required. The initial appointment is expected to be for two years, but the position is eligible for subsequent appointments, and promotions in rank are possible.

To apply, go to <https://jobs.ncsu.edu/postings/53972>. Questions may be directed to the Search Chair, Dr. Roger Woodard ([teach\\_stat\\_search@stat.ncsu.edu](mailto:teach_stat_search@stat.ncsu.edu)).

**Inclusiveness and diversity are academic imperatives and thus are university goals. Please visit <http://www.stat.ncsu.edu> for information about the Department. Processing of applications will begin November 20, 2015 and continue until the positions are filled.**

*NCSU is an equal opportunity and affirmative action employer. In addition, NC State University welcomes all persons without regard to sexual orientation or genetic information.*

required to fulfill teaching duties. PhD in mathematics or related field required by employment start date. See full classified for online submission for full consideration by December 1, 2015, at [www.mathjobs.org](http://www.mathjobs.org). Massachusetts Institute of Technology is an equal opportunity affirmative action employer.

■ MIT mathematics department, Cambridge, MA, seeking to fill positions in statistics at level of instructor beginning July 2016 (for 2016–2017 year). Appointments based on exceptional research qualifications; appointees expected to fulfill teaching duties. PhD in mathematics or related field required by employment start date. See full classified for online submission for full consideration by December 1, 2015, at [www.mathjobs.org](http://www.mathjobs.org). Massachusetts Institute of Technology is an equal opportunity affirmative action employer.



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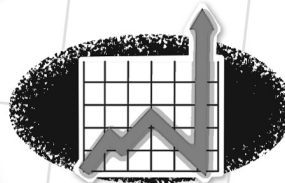
ADULT AND CHILD CENTER FOR HEALTH OUTCOMES  
RESEARCH AND DELIVERY SCIENCE

UNIVERSITY OF COLORADO | CHILDREN'S HOSPITAL COLORADO

### University of Colorado Denver Assistant Professor Position

The Adult and Child Center for Health Outcomes Research and Delivery Science (ACCORDS) at University of Colorado Anschutz Medical Campus is recruiting an Assistant Research Professor to join the Biostatistics Core. A PhD/ DSc/DrPH in Biostatistics or related areas of graduate training is required, with expertise in pragmatic trial design including cluster-randomized trials, techniques to approach causal inference and confounding in observational studies, structural equation modeling. Details and application at: <http://www.jobsatcu.com/postings/106351>

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## Requirements

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

Apply at [www.census.gov](http://www.census.gov), click on Jobs@census, Headquarters and NPC Employment Opportunities, Mathematical Statistician

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



**Assistant or Associate Professor  
Department of Statistics**

The Department of Statistics ([www.stat.uci.edu](http://www.stat.uci.edu)) at the University of California, Irvine (UCI), invites applications for a tenure-track assistant or tenured associate professor position beginning July 1, 2016. The department has an interdisciplinary focus, with an emphasis on developing methods to solve applied problems and advancing the statistical theory that underlies those methods. We are searching for faculty with strong research potential, a commitment to excellence in teaching, and enthusiasm for helping our department continue to grow. Applicants must hold a Ph.D. degree in Statistics, Biostatistics or a related field. The Department is interested in individuals with research interests in all areas of statistics.

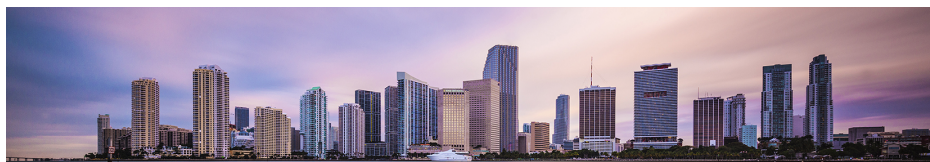
The Department of Statistics is part of the Donald Bren School of Information and Computer Sciences at UCI. UC Irvine celebrated its 50<sup>th</sup> anniversary in 2015, just after being ranked first in the United States and seventh in the world among universities less than 50 years old by a *Times Higher Education* survey. Compensation is competitive, and includes priority access to purchase on-campus faculty housing at below-market prices. UC Irvine is located 4 miles from the Pacific Ocean and 45 miles south of Los Angeles. The area offers a very pleasant year-round climate, numerous recreational and cultural opportunities, and one of the highest-ranked public school systems in the nation.

Completed applications containing a cover letter, curriculum vita, graduate transcripts (for assistant professor candidates), statements on teaching and research, sample research publications, and three letters of recommendation should be uploaded electronically. In addition, a separate statement that addresses past and/or potential contributions to diversity, equity and inclusion should be included in the application materials. Please refer to the following web site for instructions <https://recruit.ap.uci.edu/JPF03075> (assistant) or <https://recruit.ap.uci.edu/JPF03076> (associate). The review of applications will begin December 15, 2015.

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

■ Assistant professor, department of biostatistics, Boston University School of Public Health ([sph.bu.edu/bio](http://sph.bu.edu/bio)). Participate in methodological and collaborative research in exciting areas, such as statistical genetics, clinical trials, and observational studies. PhD in biostatistics or equivalent required. Email CV, letter of intent including career objectives, research and teaching experience, interests, and goals, and three letters of recommendation to [chary@bu.edu](mailto:chary@bu.edu). Boston University is an EOE.

■ The HNRCA at Tufts University is one of six USDA human research centers created by Congress to study the effects of human nutrition on health. Duties include: assisting investigators with study design and analysis of their data; design analytical and data management plans; develop statistical models and conduct specific data analysis. PhD in statistics or related field of study. Please apply online at [jobs.hr.tufts.edu](http://jobs.hr.tufts.edu). EOE.



The 2016 International Conference on Questionnaire Design, Development, Evaluation, and Testing (QDET2) will take place November 9–13, 2016, at the Hyatt Regency in Miami, Florida.



Details at [www.amstat.org/meetings/qdet2](http://www.amstat.org/meetings/qdet2)



**CHAIR  
DIVISION OF BIostatISTICS**

Search Reopened: The Ohio State University College of Public Health is seeking an innovative leader and scholar to chair its Division of Biostatistics.

The candidate is expected to provide overall division leadership, recruit and mentor faculty, participate in the direction of college and interdisciplinary Biostatistics training programs, collaborate in research initiatives, and manage the division's resources.

Candidates should have a demonstrated record of administrative experience and have a strong and distinguished record of scholarly research, teaching and mentoring.

A complete position description and application instructions can be found at [cph.osu.edu/employment](http://cph.osu.edu/employment).

*The Ohio State University is an AA/EOE.*

■ Director of the Center for Survey Research, UMass Boston. The UMass Boston seeks an accomplished scholar and a visionary, effective and dedicated leader to be the next director of its Center for Survey Research (CSR). CSR is an academic survey research center supporting basic and applied research that contributes to knowledge and understanding of important social issues and sound public policies. To apply: <http://bit.ly/1idSNdp>. EOE.

■ Statistician I at Dana Farber Cancer Institute. Work with investigators on research projects from early stages of study design through later stages of manuscript preparation and submission to academic journals. Use standard statistical packages for data manipulation and statistical analysis; write the statistical methods section of a manuscript and assist in writing the results section; and summarize results using tables and figures. Apply Here: <http://bit.ly/1OUqavS>. EOE.

## Baylor University

Baylor University is a private Christian university and a nationally ranked research institution, consistently listed with highest honors among The Chronicle of Higher Education's "Great Colleges to Work For." Chartered in 1845 by the Republic of Texas through the efforts of Baptist pioneers, Baylor is the oldest continuously operating university in Texas. The university provides a vibrant campus community for over 15,000 students from all 50 states and more than 80 countries by blending interdisciplinary research with an international reputation for educational excellence and a faculty commitment to teaching and scholarship. Baylor is actively recruiting new faculty with a strong commitment to the classroom and an equally strong commitment to discovering new knowledge as we pursue our bold vision, Pro Futuris. ([www.baylor.edu/profuturis/](http://www.baylor.edu/profuturis/)).

Baylor seeks to fill the following tenure-track faculty position within the Department of Statistical Science:

### Associate Professor

Candidates should possess an earned doctorate in the appropriate field of study. You will be asked to provide a letter of interest; curriculum vitae; transcripts and a list of three references in the application process. Salary is commensurate with experience and qualifications.

To learn more about the above position, Department of Statistical Science, and Baylor University, please visit the appropriate URL: [www.baylor.edu/statistics/](http://www.baylor.edu/statistics/) or [www.baylor.edu/briefacultypositions](http://www.baylor.edu/briefacultypositions).

Baylor University is a private not-for-profit university affiliated with the Baptist General Convention of Texas. As an Affirmative Action/Equal Opportunity employer, Baylor is committed to compliance with all applicable anti-discrimination laws, including those regarding age, race, color, sex, national origin, marital status, pregnancy status, military service, genetic information, and disability. As a religious educational institution, Baylor is lawfully permitted to consider an applicant's religion as a selection criterion. Baylor encourages women, minorities, veterans and individuals with disabilities to apply.



UNIVERSITY OF  
NOTRE DAME

### Department of Applied and Computational Mathematics and Statistics

#### Assistant, Associate or Full Professor of Statistics Assistant Professor of Applied Mathematics

The Department of Applied and Computational Mathematics and Statistics (ACMS) at the University of Notre Dame has three statistics positions at both the junior and senior level to fill this year and also one junior level position in stochastic mathematics in the broad sense, e.g., stochastic modeling, stochastic analysis, and the theory and practices of simulation. Our preference would be two statisticians at a senior (tenured) level and the remaining positions at a junior (tenure-track) level. The statisticians should be in any areas of research that build on our existing activities. Preference will be given to applicants whose research includes multi-disciplinary collaborations.

ACMS includes research groups in applied mathematics, statistics and computational science. The current fourteen faculty members have research interests in Bayesian statistics, statistical bioinformatics and high-dimensional data, statistics in networks, and Big Data, multiscale modeling of blood clotting and biofilms, mathematical modeling in cell biology and tumor growth, MEMS, numerical and computational algorithms, and computational neuroscience. ACMS offers a Bachelor of Science, a doctoral degree, a research master's degree, and a professional master's degree. ACMS is a member of the College of Science.

The successful statistics applicants must have a doctorate in statistics, biostatistics, or a closely related field. The successful stochastic mathematics applicant must have a doctorate in applied mathematics, mathematics, or a closely related field. All applicants should have a record of success in both research and teaching. The teaching load in ACMS is three courses per year, and the positions begin in August 2016.

We will begin reviewing completed applications received by November 1 or earlier, but will also review those submitted by December 1. Applications, including a cover letter, curriculum vitae, and research and teaching statements, should be filed through <http://apply.interfolio.com/30595> (Statistics) or <http://apply.interfolio.com/30609> (Applied Math). Applicants should also arrange for at least three letters of recommendation to be submitted through the Interfolio system. These letters should address the applicant's research accomplishments and supply evidence that the applicant has the ability to communicate articulately and teach effectively. Senior faculty are invited to contact the Department Chair, Andrew Sommese, at [sommese@nd.edu](mailto:sommese@nd.edu), at any time.

Notre Dame is an equal opportunity employer, and we particularly welcome applications from women and minority candidates.



## ASSISTANT/ASSOCIATE BIOSTATISTICIAN FACULTY POSITIONS

### Department of Epidemiology and Biostatistics The University of Texas Health Science Center at San Antonio, San Antonio, TX

The Department of Epidemiology and Biostatistics (DEB) at The University of Texas Health Science Center at San Antonio (UTHSCSA) seeks two experienced, doctorate-level faculty biostatistician for two tenure-track faculty positions at the rank of Assistant or Associate Professor. Candidates are expected to have expertise in longitudinal data, survival analysis, methods for large healthcare databases, statistical genomics applied to clinical outcomes, or clinical trial design. These positions provide an opportunity to collaborate with a multidisciplinary research team as well as to lead independent methodological research in a setting with access to a large, ethnically diverse population. The UTHSCSA is situated in the dynamic city of San Antonio; a wonderful place to live and work that is rich with both culture and history.

The DEB at UTHSCSA has 20 full-time faculty and 46 staff with a number of additional affiliate faculty. Research interests of the faculty include translational science, clinical- and population-based investigation, the application of epidemiological and biostatistical principles to clinical problem solving, formulation of health policy, and the development of new epidemiological and statistical methods for clinical trial design, analysis of "Big Data", clinical decision support systems, and statistical genomics.

The mission of the DEB is to develop and enhance population-based, clinical and translational research in clinical and community settings, to develop epidemiologic, biostatistical and medical informatics resources, and to promote the educational mission of the School of Medicine by teaching epidemiology, biostatistics, and critical appraisal of the medical literature to students, house-staff, and faculty. The DEB is also the home of the Biostatistics and Informatics Core which includes faculty and Masters trained researchers who serve the UTHSCSA, along with public, community, and private health entities by providing data management, biostatistical and epidemiological support for projects and programs that involve clinical or health data.

The DEB plays an integral role in UTHSCSA's research and educational missions by enhancing the programs to prevent disease, to promote health, to deliver quality health

care, and to inform health policy decisions. Depending on the research interests of the selected candidate, there are opportunities to collaborate with colleagues within the medical, nursing, and dental schools as well as other health sciences departments. For candidates interested in cancer research, there are research opportunities with the Cancer Therapy Research Center (CTRC), one of four NCI-designated Cancer Centers in Texas and the only NCI designated center in South Texas. The Department also has strong research and educational collaborations with the San Antonio Regional Campus of The University of Texas School of Public Health.

These positions are tenure-track and a 12-month appointment. Appointments are open rank (Assistant or Associate level). Preference will be given to someone with a demonstrated ability to both collaborate on multidisciplinary research teams and to successfully lead their own research program. Applicants must have a doctoral degree (PhD or equivalent) in Biostatistics or Statistics, excellent communication skills, and a strong interest in interdisciplinary collaboration.

Review of applications will begin immediately and continue until the positions are filled. Salary will be commensurate with qualifications. Information about the DEB is available here: <http://deb.uthscsa.edu/>. For full consideration applicants should send electronically or via mail: 1) a cover letter stating career goals and the relevance of the candidate's training and experience to the position; 2) a current CV; 3) a personal statement describing the candidate's research plan and teaching experience; and 4) names and contact information of three references to [gelfondjal@uthscsa.edu](mailto:gelfondjal@uthscsa.edu) or by mail to: Jonathan Gelfond, M.D., Ph.D., Associate Professor and Biostatistics Search Committee Chair, UT Health Science Center at San Antonio, Department of Epidemiology and Biostatistics, 7703 Floyd Curl Dr.--MSC 7933, San Antonio, TX 78229-3900.

*All faculty appointments are designated as security sensitive positions. The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer including protected veterans and persons with disabilities.*

## Pennsylvania

■ The statistics department at the Fox School, Temple University, seeks internationally renowned scholars with excellent track records in research, teaching, external funding, and dissertation advising for a senior faculty position in Fall 2016. Candidates are expected to maintain a rigorous research program. A research focus on big data with interdisciplinary applications/collaborations is desirable. Salary is highly competitive and commensurate with qualifications. Please visit [www.fox.temple.edu/cms\\_academics/dept/statistics/](http://www.fox.temple.edu/cms_academics/dept/statistics/). EOE.

■ The Wharton Department of Statistics, University of Pennsylvania, is seeking full-time, tenure-track faculty at any level: assistant, associate, or full professor, appointment beginning July 2016. Applicants should show outstanding capacity in research and teaching. Applicants must have a PhD (expected completion by June 30,



## Call for proposals for workshops and research programs at SAMSI

The Statistical and Applied Mathematical Sciences Institute (SAMSI) invites proposals for year-long research programs, workshops and shorter summer programs. All proposals should address topics of current research interest in statistics, applied mathematics, or interdisciplinary applications.

**For information on submitting proposals, see:**  
<http://www.samsi.info/proposals>

## Deadline for submissions

- Proposals for short programs for Summer 2017 and Academic Year 2016-17 is November 30, 2015.
- Proposals for year-long programs for Academic Year 2018-19 and later is December 30, 2015.

2017, is acceptable) from an accredited institution. Please visit our website to apply: <http://statistics.wharton.upenn.edu/recruiting/facultypositions>. Questions should be sent to [statistics.recruit@wharton.upenn.edu](mailto:statistics.recruit@wharton.upenn.edu). The University of Pennsylvania is an EOE. Minorities / women / individuals with disabilities / protected veterans are encouraged to apply.

## Texas

■ The department of mathematics and statistics at Texas Tech University invites applications for the position of department chair and professor beginning fall 2016. Candidates must have demonstrated outstanding vision, leadership, and scholarship, possess strong commitments to interdisciplinary research and educational activities, and be a collegial motivator and advocate for faculty. See [www.math.ttu.edu/FacultyStaff/chair-ad.shtml](http://www.math.ttu.edu/FacultyStaff/chair-ad.shtml) for the full ad. Apply at [www.texastech.edu/careers/](http://www.texastech.edu/careers/) using requisition 4369BR. EOE

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<http://jobs.amstat.org>



## TENURE-TRACK FACULTY POSITION SCHOOL OF PUBLIC HEALTH AND HEALTH PROFESSIONS

The Department of Biostatistics, University at Buffalo, seeks to hire an outstanding scientist with research interests in computational statistics, algorithms, visualization, machine learning, analysis and inference for digital image processing, neural computation, predictive modeling and other areas of statistical informatics. This is a 12-month, tenure-track, appointment at the Assistant Professor rank, and it is part of the university-wide initiative on developing expertise in Data Science and analysis of "Big Data".

Candidates should have doctoral level training (Ph.D. or equivalent) in statistics/biostatistics, computer science, applied mathematics and related quantitative fields. Candidates with formal training and/or experience in both statistics/biostatistics and machine learning are preferred. Evaluation of candidates will be based on research productivity, potential for development of an independent research program and capability of teaching. Preference will be given to candidates with experience and/or strong interest in interdisciplinary research. The successful candidate will be expected to develop an extramurally funded, independent research program, with emphasis on graduate-level teaching, mentor graduate and undergraduate students, develop interdisciplinary collaborations and engage in service activities. The position offers outstanding institutional support and opportunities for collaboration.

The Department of Biostatistics is located in the School of Public Health and Health Professions (SPHHP), a fully accredited school of public health (CEPH). The University at Buffalo, dedicated to academic excellence, is a member of the prestigious Association of American Universities (AAU) and is the leading public research university in New York State, offering more than 300 undergraduate and graduate degree programs. Buffalo provides a rich environment for collaborative research with faculty at the SPHHP, at The Roswell Park Cancer Institute, and at other schools of the Academic Health Center and Graduate School. For more information about the Department of Biostatistics see, <http://sphhp.buffalo.edu/biostatistics.html>.

To apply, please send a letter of application, curriculum vitae, a list of three references and a statement describing research and teaching experience and interests to UB Jobs. Review of applications will begin immediately; applications will be received until the position is filled.

Please apply to: <https://www.ubjobs.buffalo.edu>, POSTING NUMBER: 1500520.

The State University of New York at Buffalo is an Equal Opportunity/Affirmative Action Employer/Recruiter.



THE UNIVERSITY OF HONG KONG



## Tenure-Track Associate Professor/Assistant Professor in the Department of Statistics and Actuarial Science (2 posts) (Ref.: 201500955)

Applications are invited for a tenure-track appointment as Associate Professor / Assistant Professor [posts (A) and (B)] in the Department of Statistics and Actuarial Science, to commence on September 1, 2016 or as soon as possible thereafter. These posts are tenure-track positions with consideration for tenure during the second three-year appointment.

The Department will be offering a new major, Decision Analytics starting from 2015-16, in addition to its current Statistics Major, Risk Management Major, BSc in Actuarial Science programme and Master of Statistics programme. The new Major in Decision Analytics adopts an interdisciplinary curricular structure comprising a wide range of Statistics courses, supplemented with courses in Computer Science and Mathematics. The new Major puts an emphasis on the fundamentals of the subject, whilst students will also learn different applied techniques in Decision Analytics.

**For post (A)**, applicants should possess a Ph.D. degree in Statistics or related disciplines with expertise in statistical learning for big data. **For post (B)**, applicants should possess a Ph.D. degree in Quantitative Risk Management or Statistical Inference. **For both posts**, demonstrated research ability and teaching experience are preferred. The rank offered will depend on the candidate's years of experience, publications and on-going research. The appointees should be able to demonstrate excellence in research and scholarship; and evidence of leadership in curriculum and pedagogy development, and teaching effectiveness. For enquiries about the existing research activities of the Department and the specific job requirements, please write to Professor W.K. Li, Head of the Department of Statistics and Actuarial Science (e-mail: [hrntwk@hku.hk](mailto:hrntwk@hku.hk)).

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

Applicants should send a completed application form, together with an up-to-date C.V., a detailed publication list, a research plan and a statement on teaching philosophy by e-mail to [scsaas@hku.hk](mailto:scsaas@hku.hk). Please indicate clearly the reference number and which level they wish to be considered for in the subject of the e-mail. Application forms (341/1111) can be downloaded at <http://www.hku.hk/apptunit/form-ext.doc>. Further particulars can be obtained at <http://jobs.hku.hk/>. **Closes December 31, 2015.**

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

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



**Virginia Tech**  
Invent the Future

**DEPARTMENT OF STATISTICS**  
**4 Tenure-Track Openings**

The Virginia Tech Department of Statistics ([www.stat.vt.edu](http://www.stat.vt.edu)) has four tenure-track openings. We seek individuals with strong academic credentials in statistics, the ability to develop an independent research program, and who have the potential to excel in teaching. Applicants must have earned a doctorate in statistics or a closely related field at the time of appointment.

- **Computer modeling/data analytics.** Two full-time positions at the assistant professor level in support of the cross-disciplinary Computational Modeling and Data Analytics (CMDA) program ([www.science.vt.edu/ais/cmda](http://www.science.vt.edu/ais/cmda)). Required is a research focus in computationally intensive statistical methods, data analytics, machine learning, or a related field. Applications are due by November 1st and must be submitted online at [listings.jobs.vt.edu](http://listings.jobs.vt.edu) (posting #TR0150098). Interviews may start as early as December 1st.
- **Biostatistics & stochastic modeling.** Two full-time positions at the rank of assistant or associate professor. For the first position, specialization in some area of health-related statistics, such as biostatistics, neuroscience, epidemiology, or bioinformatics is required. For the second, specialization in complex stochastic modeling and computation for large-scale data and analysis is required. Applications are due by December 1st and must be submitted online at [listings.jobs.vt.edu](http://listings.jobs.vt.edu) (posting #TR0150097).

Exceptional candidates may be considered at more senior ranks for all of the above positions. Virginia Tech is an EO/AA university, and offers a wide range of networking and development opportunities to women and minorities in science and engineering, and additionally provides a competitive dual hiring program for couples.

*Virginia Tech is an Equal Opportunity/Affirmative Action Institution.*

**Utah**

■ Assistant professor – statistics. The mathematics department at Utah Valley University invites qualified individuals to apply for a tenure-track position as an assistant professor beginning August 2016. The teaching load is 12 credit hours/per semester. Must have a PhD in statistics or related field, ABD accepted. Application review begins December 1, 2015, until filled. Apply: [www.uvu.jobs](http://www.uvu.jobs). UVU is an affirmative action equal opportunity equal access employer.

**Virginia**

■ The department of mathematics and computer science at the University of Richmond invites applications for a tenure-track position in statistics at the level of assistant professor. Candidates must have completed a PhD in any area of theoretical or applied statistics by the August start date. Applications received



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## *Statistical Sciences Group*

Los Alamos National Laboratory  
[www.stat.lanl.gov](http://www.stat.lanl.gov)

### *Ph.D. Statisticians*

The Statistical Sciences Group at Los Alamos National Laboratory seeks excellent candidates for challenging careers in Statistics. Candidates are expected to possess or be near completion of a Ph.D. in Statistics and have knowledge of multiple areas of statistical sciences, strong statistical computing skills, and interest in diverse application areas. Top candidates will demonstrate experience developing statistical methodology in multidisciplinary collaborations and proven statistical research ability as evidenced by journal publications, technical reports, and/or conference presentations. Both verbal and written communication skills are important for collaboration with statistical colleagues and scientists in other disciplines.

The Laboratory maintains an atmosphere of intellectual freedom and offers a competitive salary and excellent benefits.

**Information on current openings, eligibility requirements, and application instructions may be found by going to <http://www.stat.lanl.gov> or by contacting us at [statsearch@lanl.gov](mailto:statsearch@lanl.gov).**

### *Pushing the Frontiers of Science*

For more than six decades, Los Alamos National Laboratory has challenged the frontiers of science by creatively combining basic sciences with engineering and technical advances. As one of the country's largest national laboratories, the Laboratory is recognized as a world-class scientific and engineering institution. Operated for the Department of Energy, the Laboratory serves the nation by advancing science and technology to make the world a better and safer place.

The Statistical Sciences Group was formed in 1967 to provide the Laboratory with a center of expertise in statistics. The group consists of 22 statistical scientists, plus supporting personnel, technical specialists, visiting faculty, graduate students, and postdoctoral fellows. The group currently has expertise in a range of methodologies including uncertainty quantification, design and analysis of experiments, sample planning, reliability, analysis of measurement systems, Bayesian methods, statistical computation, Monte Carlo and computer-intensive methods, spatial modeling, and statistical graphics and visualization.

Statisticians work in partnership with world-class scientists to develop and apply basic science and technology in areas such as computational science, materials science, physics, energy, geology, climate, astronomy, biology, and chemistry. In addition to questions of national security and nuclear safety and reliability, diverse areas of application arise from technical challenges faced by other government agencies and industrial partners. Supercomputing and simulation play a large and growing role in many of these disciplines and applications. The work of the Statistical Sciences Group involves development and application of statistical methodology to address the scientific questions in these fields, often with a strong focus on computation. The group encourages members to publish and present their work to the broader statistical community.

### *Los Alamos Area*

Los Alamos sits at 7300 feet on the colorful mesas that extend from the slopes of the Jemez Mountains. The town of about 18,000 people overlooks the Rio Grande Valley with further views of the Sangre de Cristo range, which forms the southern end of the Rocky Mountains. Los Alamos is a scenic 40-minute drive from the historic and cultural center of Santa Fe. The Los Alamos area boasts unparalleled access to outdoor activities such as skiing, fishing, mountain biking, and hiking.

## Tenure-track Faculty Positions in Biostatistics

### New Haven, Connecticut

The Department of Biostatistics in the School of Public Health at Yale University is seeking applicants at the rank of Assistant Professor. Recent graduates and applicants with a research focus in any area of biostatistics are encouraged to apply, such as big data, causal inference, genomics, environmental statistics, clinical trials, missing data, imaging, data mining, Bayesian methods, etc.

The Yale School of Public Health is committed to growing and extending its expertise in biostatistics. There are existing collaborations with the School of Medicine, particularly with the Yale Center for Clinical Investigation (Yale CTSA) and Cancer Center, and throughout the university. Successful candidates will be expected to develop an independent program of methodological research in their area of interest, while cultivating collaborations with other investigators in the School of Public Health, the School of Medicine and the University. In addition, successful candidates will be expected to teach graduate courses.

Review of applications will commence on November 1, 2015 and will continue until a successful candidate is identified. Applicants should have a PhD by the start of appointment in statistics, biostatistics, or a closely related field. Applicants are asked to prepare PDF files that contain a cover letter, curriculum vitae, statement of research and teaching interests, copies of up to five recent publications and contact information for three references. Please apply online at: <https://academicjobsonline.org/ajol/jobs/5954>

For additional information and inquiries please contact:

Biostatistics Search Committee Chair

Email correspondence: [biostatistics.search@yale.edu](mailto:biostatistics.search@yale.edu)

[www.yale.edu/ysph](http://www.yale.edu/ysph)

*Yale University is an affirmative action/equal opportunity employer. Yale values diversity in its faculty, students, and staff and especially welcomes applications from women and underrepresented minorities.*



by November 15 will be guaranteed full consideration. For more information on the position, please go to [math.richmond.edu](http://math.richmond.edu). EOE.

## CANADA

### Ontario

■ The Department of Statistics and Actuarial Science, University of Waterloo, invites applications for one tenure-track or tenured position in statistics or biostatistics. PhD in area of statistics or biostatistics required. Apply through [www.mathjobs.org/jobs](http://www.mathjobs.org/jobs). Include cover letter, CV, research/teaching statements, up to three reprints/preprints and three reference letters. Full advertisement <http://bit.ly/1Ka1zTX>. Closing: December 1, 2015. EOE.

■ The department of statistics and actuarial science, University of Waterloo, invites applications for 1–2 tenure-track or tenured positions in actuarial science. PhD in area of actuarial science or mathematical finance;

## Biostatistics Faculty - Tenure Track

The Department of Biostatistics and Epidemiology at the Perelman School of Medicine at the University of Pennsylvania seeks candidates for several Associate or Full Professor positions in the tenure track. Rank will be commensurate with experience. Applicants must have a Ph.D. or equivalent degree.

Applicants will focus primarily on methodological research, with secondary emphasis on collaborative research projects within the School of Medicine. Applicants with methodological focus in next generation sequencing, causal inference, and incomplete data are especially encouraged to apply. Applicants in other areas of research will also be considered. A demonstrated track record as the principal investigator of methodological research supported by extramural grant funding is required. There is a rich mix of ongoing biomedical research projects in the Perelman School of Medicine to provide motivation and opportunities for the development of novel statistical methods on wide ranging topics.

Candidates are expected to have a strong commitment to teaching and must demonstrate outstanding research productivity. Primary teaching responsibilities include participation in Penn's Center for Clinical Epidemiology and Biostatistics academic programs.

The Graduate Group in Epidemiology and Biostatistics, jointly



**Perelman**  
School of Medicine  
UNIVERSITY OF PENNSYLVANIA

with the Department of Statistics in the Wharton School, offers degree programs leading to both the Doctor of Philosophy (PhD) and Master of Science (MS) in Biostatistics.

Review of applications will begin on September 30, 2015 and will continue to be accepted after this date, until the positions are filled. The expected start date is July 2016 or later.

We seek candidates who embrace and reflect diversity in the broadest sense.

*The University of Pennsylvania is an EOE. Minorities/Women/Individuals with disabilities/Protected Veterans are encouraged to apply.*

Apply for this position online at: [https://www.med.upenn.edu/apps/faculty\\_ad/index.php/g303/d4016](https://www.med.upenn.edu/apps/faculty_ad/index.php/g303/d4016)

research in actuarial science or related disciplines. Apply through [www.mathjobs.org/jobs](http://www.mathjobs.org/jobs). Include cover letter, CV, research/teaching statements, up to three reprints/preprints and three reference letters. Full advertisement [bit.ly/1IYHcDY](http://bit.ly/1IYHcDY). Closing: December 1, 2015. EOE.

### International

■ Assistant/Associate Professor – Statistics. The department of management sciences at the City University of Hong Kong invites applications for one or more tenure-track positions in statistics. We are interested in candidates with research expertise in big data analytics/business and financial statistics/data mining/statistics in healthcare management/survey sampling. The university offers excellent salary package, research funding, and other benefits. Apply directly at [www.jobs.cityu.edu.hk](http://www.jobs.cityu.edu.hk). EOE.

### Faculty Position in Oncology Biostatistics & Bioinformatics, The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins



The Division of Biostatistics and Bioinformatics, Department of Oncology, Johns Hopkins School of Medicine and the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins is accepting applications for a tenure-track faculty bioinformatician. Suitable candidates will hold a

Ph.D. in statistics, computer science, physics or similar quantitative field, with interest and experience in molecular research, primarily in cancer. We particularly encourage candidates from the assistant professor level and individuals developing novel methodology to integrate proteomic or sequencing data with other sources of molecular information are particularly encouraged to apply.

Excellent verbal and written communication skills and ability to collaborate effectively with investigators in other disciplines are essential. (At this time we are not recruiting for individuals whose primary interest and experience is in Biostatistics.) Please visit our website for more information about our group: [www.rits onc.jhmi.edu/DBB/](http://www.rits onc.jhmi.edu/DBB/)

**Application Procedure:** Applicants should send a letter of application, Curriculum Vitae (including personal website URL if available), and at least three letters of reference to the following address.

**For electronic communication:** [OncBioSearch@jhmi.edu](mailto:OncBioSearch@jhmi.edu) For paper communication: Search Committee Division of Biostatistics and Bioinformatics 550 North Broadway, Suite 1103 Baltimore, MD, 21205-2013

Applications will be considered until January 1, 2016.

The Johns Hopkins University is an Equal Opportunity/Affirmative Action employer. We strongly encourage qualified women and under-represented minorities to apply.

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## Williams College Assistant Professor

The Williams College Department of Mathematics and Statistics invites applications for two tenure-track positions in statistics, beginning fall 2016, at the rank of assistant professor (in an exceptional case, a more advanced appointment may be considered). We are seeking highly qualified candidates who have demonstrated excellence in teaching and research and who are committed to working with an increasingly diverse student body. The candidates will become the fourth and fifth tenure-track statisticians in the department, joining a vibrant and active statistics group with a newly established statistics major. The teaching load is two courses per 12-week semester and a winter term course every other January. In addition to excellence in teaching, an active and successful research program is expected. The candidate should have a Ph.D. by the time of appointment. We welcome applications from members of groups traditionally underrepresented in the field.

Candidates may apply via [interfolio.com](http://interfolio.com) by uploading their vita and having three letters of recommendation on teaching and research uploaded to <http://apply.interfolio.com/30206>. Teaching and research statements are also welcome. Evaluations of applications will begin on or after November 15 and will continue until the position is filled. All offers of employment are contingent upon completion of a background check. Further information is available upon request. For more information on the Department of Mathematics and Statistics, visit <http://math.williams.edu/>.

Williams College is a coeducational liberal arts institution located in the Berkshire Hills of western Massachusetts. The college has built its reputation on outstanding teaching and scholarship and on the academic excellence of its approximately 2,000 students. Please visit the Williams College website (<http://www.williams.edu>). Beyond meeting fully its legal obligations for non-discrimination, Williams College is committed to building a diverse and inclusive community where members from all backgrounds can live, learn, and thrive.





## Associate Professor of Public Health (Biostatistics) New Haven, CT

The Department of Biostatistics in the School of Public Health at Yale University is accepting applications at the level of Associate Professor in the Investigator Track (non-tenure). This position is for a doctoral-level faculty member with statistical expertise in one or more areas related to addictive behaviors or disorders and with demonstrated ability to work in a trans-disciplinary capacity with investigators in epidemiology, public health, health policy, psychiatry, psychology, and/or medicine. Specifically, expertise in substance (alcohol, drugs, or tobacco) or behavioral (gambling, eating/weight, sex, or internet) addictions as they relate to public health research areas such as psychiatric epidemiology, healthcare utilization (EMR or “big data”), program evaluation, cost-effectiveness, infectious disease epidemiology, biomedical informatics, smartphone data design and analysis, or the analytic intersection between clinical trials and neuroimaging or genetics data analysis is desired. Experience with several of the following analytic strategies is preferred: multilevel modeling, structural equation modeling, Bayesian statistics, geospatial analysis, econometrics, missing data analysis, sampling methods, longitudinal analysis.

The investigator track position will be affiliated with the Yale Center for Analytical Sciences (YCAS), a center under the Department of Biostatistics at the Yale School of Public Health, and the National Center on Addiction and Substance Abuse (CASAColumbia), a new policy, research, and dissemination center at Yale. YCAS brings together existing academic strengths in biostatistics and epidemiology at the School of Public Health to provide expertise for the design, conduct and analysis of health and healthcare studies, methodological development and education and training. CASAColumbia brings together trans-disciplinary expertise in substance and behavioral addiction research, health services research, adolescent treatment research, and policy research and analysis. The successful candidate will be expected to co-direct a new Yale Addiction Policy and Data Analytic Center (YAP-DAC), collaborate with investigators on projects at the School of Public Health and School of Medicine in New Haven and CASAColumbia in Manhattan, and conduct methodologic research that advances the field of addiction science.

Start date will be July 1, 2016 with review of applications beginning on October 15, 2015 and continuing until a successful candidate is identified. Applicants are asked to prepare PDF files that contain a cover letter, curriculum vitae, statement of research interests, copies of up to five recent representative publications and contact information for three references (who would be contacted during the final stage of consideration). Please apply online at: <https://academicjobsonline.org/ajo/jobs/5914>

For additional information and inquiries please contact:  
Chair, Biostatistics Search Committee  
Email correspondence: [biostatistics.search@yale.edu](mailto:biostatistics.search@yale.edu)  
[www.yale.edu/yspb](http://www.yale.edu/yspb)

Yale University is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women, members of minority groups, persons with disabilities and protected veterans.

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I really hope that meal time at DataFest is called DataFeast. If it's not, then I am starting that.  
[@AmstatNews](#) [@BaumerBen](#)



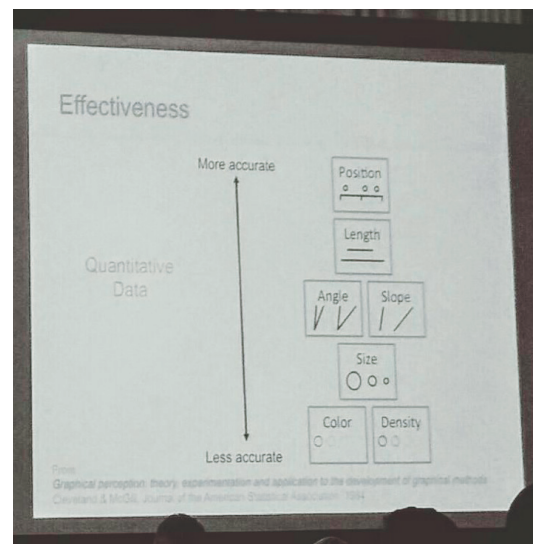
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My litmus test for someone who has never done serious stats analysis is querying necessity of data cleaning.



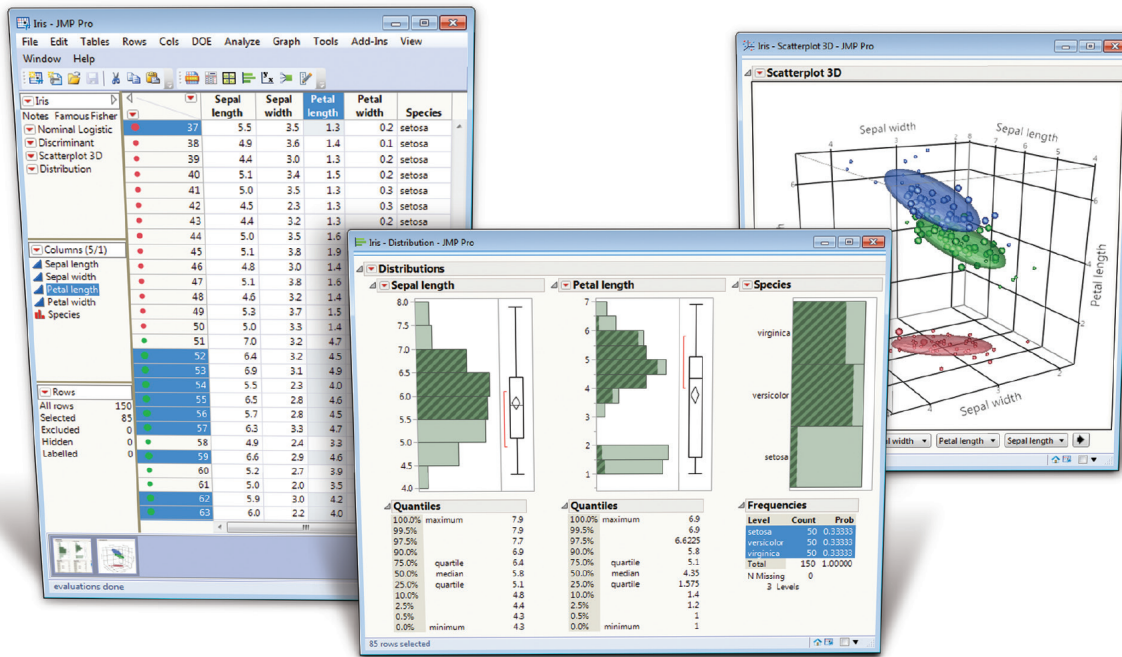
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I am teaching so hard right now. Like it's my damn job.  
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