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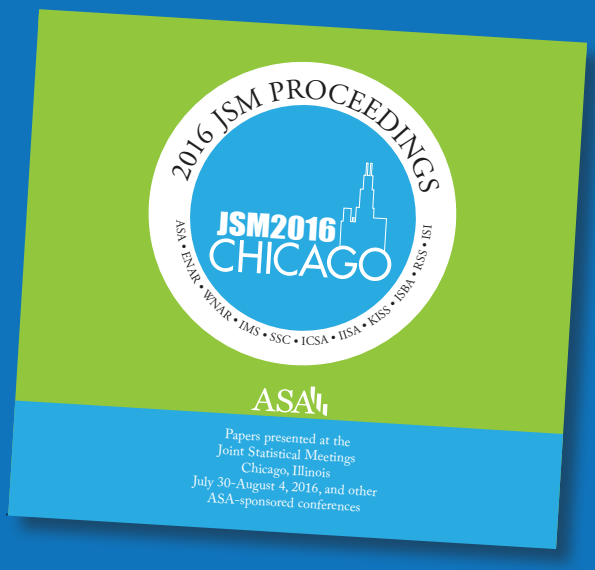
The American Statistical Association is the world's largest community of statisticians. The ASA supports excellence in the development, application, and dissemination of statistical science through meetings, publications, membership services, education, accreditation, and advocacy. Our members serve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

features

Damage from Hurricane Matthew in South Haiti. **Page 10**

columns

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



2016 Proceedings

ASA Members: Have you viewed the **JSM 2016 Proceedings** yet? Log in to Members Only to read presentations you may not have had time to see in Chicago. *www.amstat.org/membersonly*.

CORRECTION

In the December issue, the name of StatFest's keynote speaker, Dionne Price, was misspelled in the headline. It has been corrected online: ***http://magazine.amstat.org/blog/2016/12/01/statfest***.

member news

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New Year, New President, New Opportunities

Barry Nussbaum

Happy New Year! Just like the rest of the nation, as 2017 begins, the American Statistical Association gets a new president. But unlike national politics, this election proceeded without corruption allegations, FBI probes, sexual assault claims, vulgar language, and jail threats. With all this lacking, does that mean we are a boring association? *Hardly*.

This is a tremendously exciting time for the American Statistical Association. Opportunities abound with the greater emphasis on data-driven solutions. Challenges also abound with the deluge of Big Data. So, it is a great time to be a member of the ASA, the largest professional statistical society in the world. And yes, it is a fabulous time to be the ASA's president for me. I am honored.

Omitting the vitriolic remarks that existed in the national election, you probably deserve to know more about me. Before leaving politics, however, I will acknowledge that both Donald Trump and I were born and raised in Jamaica, New York. He lived in an area in which I used to ride my bike. So, it appears we are both beginning terms as president. I think I got the better deal. Enough said about that.

For many of us, it is hard to point to the time we knew we were going into statistics. For me, I can remember the exact minute. It didn't occur the way most of you would imagine. I was just weeks away from my bachelor's degree in mathematics from Rensselaer Polytechnic Institute. My professor from an abstract algebra class saw me on campus and inquired if I would be pursuing mathematics at the graduate level. I simply answered "no." I was more interested in operations research and statistics. He inquired, "Why don't you want to continue in pure mathematics, the queen of the sciences?" Lacking the wisdom and diplomacy I have since acquired, I told him I assumed graduate mathematics was the same old stuff with the epsilons and deltas just getting smaller. What I could have, and should have, said was that I found applying analytic and statistical techniques to real problems far more satisfying. I love seeing something work right because of our accurate and appropriate statistical analysis.

Confirmation of my selection of statistics occurred several years later when the judge in an administrative court case decided in favor of the Environmental Protection Agency. He ruled that EPA could recall 208,000 Chrysler vehicles for excessive carbon monoxide emissions based on my sample of 10 vehicles. Wow! That convinced me of the power of statistics and the ability of statistics to play such a major role in issues affecting our lives.

That victory was early in my 40-year career with the EPA. I retired in 2016 after having served as EPA's chief statistician for eight years. Along the way, I saw the remarkable power our field has in the development of public policy—environmental regulation and enforcement in my case. So, I am a devotee of statistics providing impact. However, I have also learned that the impact can often be blunted when we fail to communicate effectively to those making the decisions and policies.

Many have heard my mantra, "It's not what we said, it's not what they heard, it's what they say they heard." I will elaborate on my efforts to improve our communicative abilities in March's President's Corner. So, in the meantime, think about your communications skills the last time you were called upon to collaborate on an important project. Did your input carry the desired weight?

Now, lest you think I only pay attention to those statisticians who are somehow doing consulting work—where collaboration is crucial—I maintain we all have to improve our ability to make sure the other party truly understands our analysis and conclusions to derive the intended impact. Or as David van Dyk once eloquently stated at an ASA Board meeting, "A statistician who does not collaborate is not a statistician." Or, thinking of Tukey's famous quote, I hope we are one of the major builders of the castle in the other guy's sand box.

My experience at the EPA made me something of a jack of all trades in using different statistical methods to address a wide array of problems, each with their own peculiarities and nuances. Many of my colleagues would probably emphasize the 'master of none' portion of that proverb when describing me.

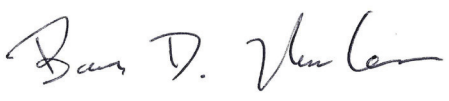
My experience at the EPA made me something of a jack of all trades in using different statistical methods to address a wide array of problems, each with their own peculiarities and nuances. Many of my colleagues would probably emphasize the "master of none" portion of that proverb when describing me. (Good thing I am writing this column, not them!) I think this ability to be helpful in many areas will serve me well as ASA president. Instead of being focused on just a specialty, it gives me the ability to look at problems with a broader perspective, apply a modicum of common sense, and then call on experts as we go into details. Or, as my friend and colleague Nagaraj Neerchal once aptly phrased it, "I am the country doctor type of statistician."

This country doctor approach comes to me honestly. My dad was an old-time general practitioner. Yup, the kind with the stethoscope, the tongue depressor, the reflex hammer, and the black bag. He also did house calls, and, lots of times, I went along for the ride. This enabled me to hear a great deal of dad's philosophy that you can make a better diagnosis if, instead of immediately running a cadre of tests, you first ask the patient a lot of questions and carefully *listen* to the answers. This, of course, leads to better treatments and results. I think we can use that line of thinking quite profitably today. (For those who read between the lines, you are correct. Riding with my dad on house calls also gave my mom some free time!)

But this generalist approach is not to say I don't have specific ideas. In fact, there are three very important presidential initiatives that I have started. They will be discussed in detail in next month's column. Spoiler alert: They concern communications, motivation of youth, and engagement of the ASA's fastest-growing segment. But don't wait for future months to get involved. Our ongoing section and chapter activities provide each and every one of you an opportunity to enrich your knowledge, network with others, and augment professional growth. And don't forget, coming quite soon (February 23–25) is the popular and instructive Conference on Statistical Practice in Jacksonville, Florida.

As I begin my term, I want to sincerely thank all those people who did the work in 2016 to pave the way for a dynamic ASA in 2017. This includes the immediate past presidents who provided guidance I will not forget. It also includes all the council chairs who evaluated and nominated about 500 members for committee appointments. It certainly includes the very capable and enthusiastic ASA staff members in Alexandria, who are probably getting used to my frequent visits to the building. But, to be an effective president, I need the support of the entire association. That means *you*. And, remember the more you put into our society, the more you get out of it. I look forward to working with you.

Significantly forward,
Barry



Highlights of the November Board of Directors Meeting

ASA President Jessica Utts gaveled to order the final ASA Board meeting of 2016 at the ASA offices in Alexandria, Virginia. The highlights of the meeting follow.

Discussion Items

- Board members had a lively discussion about more effectively communicating why involvement in the ASA is important and meaningful.
- **Amanda Malloy**, director of development, led a conversation about the ASA's fundraising program, especially with respect to telling member stories about the impact of the ASA.
- The list of JSM locations was preliminarily reviewed by the board in response to a suggestion from a chapter about a possible new location. Research will be conducted on several cities and this topic will be taken up again at the next meeting.

Action Items

- Concluding a year-long process, and based on thoughtful feedback from ASA members, the ASA Board approved a new ASA strategic plan. Read more about it on Page 8.
- The board made technical changes to the ASA's Investment Policy Guidelines, including some revisions to target asset allocations in various investment categories.
- The board endorsed a set of curriculum guidelines for undergraduate programs in data science, drafted this summer by a group of faculty led by former ASA Board member **Dick De Veaux** at the Park City Math Institute.

Reported Items

- The board heard a detailed update from our partner, Stanton Communications, on the ASA's national public relations campaign, "*This* Is Statistics." The board received metrics about response to the program and discussed plans for next year. This campaign, aimed at high-school and undergraduate students, is a long-term investment of the ASA in the future of the profession.
- The board followed that report with a preliminary discussion of what our next national PR campaign will be. The discussion will continue next spring.

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- **Wendy Naus**, executive director of the Consortium of Social Science Associations (COSSA), updated the board on COSSA's advocacy activities. The ASA is a founding member of COSSA, and we partner with COSSA in support of research funding, federal statistical agencies, and other important matters.
- **Nell Sedransk**, executive director of the National Institute of Statistical Science (NISS), informed the board about activities and transitions at NISS. The ASA is also a founding member of NISS.
- At every meeting, the board receives an update on the progress of ASA president initiatives. Reports on the final status of 2016 initiatives (from Utts) and the progress of 2017 initiatives (from president-elect **Barry Nussbaum**) were heard and discussed.
- Also at every meeting, the Council of Chapters Governing Board (COCGB) and Council of Sections Governing Board (COSGB) report on their recent activities. The COCGB highlighted its work to provide "stimulus funding" to chapters. The COSGB has been active in providing additional support for interest groups.
- ASA Director of Science Policy **Steve Pierson** reviewed the advocacy activities of the association. He praised the work of new ASA Science Policy Fellow **Amy Nussbaum** and highlighted the new Commission on Evidence-Based Policy Making.
- The annual report of the Education Council was presented by Vice President **Rob Santos**. These council reports help the board stay connected with ASA committees and vice versa.
- Associate Executive Director and Director of Operations **Steve Porzio** updated the board on ASA financials through the third quarter. JSM was a big success in many respects, including record attendance and a solid bottom line. Porzio said the ASA would end 2016 in the black.
- **Rebecca Nichols**, ASA director of education, highlighted two educational activities: the ASA's Meeting Within a Meeting, which just celebrated its 10th anniversary at JSM 2016, and the new K–12 Educational Ambassador program. Nichols noted both programs are important components of the ASA's larger efforts to improve K–12 statistics education.

The ASA Board meets again April 7–8 at the ASA offices. ■

STAFF SPOTLIGHT

Thierryne Ntiranyuhura

Ntiranyuhura

Warm greetings to you all! I recently joined the ASA as a program coordinator for awards and elections. I am thrilled to be part of the ASA; it is such a happy environment with proficient, efficient, friendly, and helpful colleagues. I am grateful for the privilege of being part of this robust team, working hard to advance the practice and profession of statistics.

I was born in a tiny beautiful country in East Africa called Burundi. I have a master's degree in international economics and finance from Brandeis University. Prior to joining the ASA, my work experiences were mainly related to promoting economic growth and reducing poverty, particularly in Kenya, but also in other countries in East Africa—Burundi included.

I am a super fan of statistics; I like the cogency it adds to analyses. I am impressed by how knowledge in statistics provides you with the necessary tools and conceptual foundations in quantitative reasoning to extract information intelligently from a sea of data.

In Africa, statistics is needed to literally count down poverty. Africa is slow to fully capitalize on the potential of statistics; the use and analyses of data are a huge challenge. But the 'little' investment in statistical capabilities and integrating analytics into decisions and processes are playing a critical role in the effectiveness of specific projects achieving development goals and improving the design of development programs. They also are contributing to a broader understanding of development effectiveness. It is really helping deliver insights that can power innovation for African businesses and boost job creation and strengthen African economies.

The field of statistics is growing in acceptance and importance. I have great respect for the statisticians' community and am grateful for all you are doing to make this world a better place!

I love cooking and decorating. I enjoy singing a lot (I am in the church choir). I have a great interest in learning foreign languages—I speak six so far and intend to learn Chinese. I really love traveling; the gift of travel changed my perspective on everything. From Burundi, a tiny country with the lowest GDP per capita of any nation, to the USA, such a big and diversified country with the biggest GDP per capita in the world, traveling has allowed me to be a better person. It has particularly taught me to live in the moment. It expanded my mind and allowed me to easily adapt to new situations. I like waking up with a smile and keeping it all day, because I believe every day is such a great gift to be grateful for. ■

Ask Me Anything!

Subject-Matter Experts Answer Your Questions

Lara Harmon, ASA Marketing and Online Community Coordinator

Well, not *quite* anything. But, every month, ASA student and early-career members have the chance to ask professionals vital questions about transitioning from student to working life, building experience, assuming leadership, and more.

In September, ASA Science Policy Fellow Amy Nussbaum volunteered to be the ASA's first "Ask Me Anything" expert. What is an Ask Me Anything (or AMA)? It's a written online interview in which a subject-matter expert volunteers to answer questions submitted in real time by the members of a discussion group. Whether featuring pop culture heroes or NASA engineers, AMAs draw crowds of admirers and hopeful mentees online.

Thanks to the enthusiasm and insightful questions from the members of the ASA's Young Professionals discussion group, our first ASA AMA took off. As did the second, with special guest 2016 ASA President Jessica Utts answering questions from the ASA's office (just off a 14-hour plane ride from Vietnam, I might add). Student chapter leaders—including Purdue University's Will Eagan, Vanderbilt University's Jacquelyn Neal, and The University of Texas-Austin's Elyas Mercado—helped break the ice and thanked Utts for her thoughtful answers.

With Young Professionals members calling the AMAs a "great opportunity" and "super helpful and inspirational," the ASA is determined to keep this new feature going. Take a look at our schedule for the next few months:

- January – 2017 ASA President **Barry Nussbaum**
- February – ASA Director of Science Policy **Steve Pierson**

Got questions about ASA's AMAs? Interested in becoming an AMA guest? Contact me at *lara@amstat.org* for details.

To keep up to date on upcoming AMAs, watch the Recent Member Blogs column on the ASA Community website (*http://community.amstat.org/home*), check in on Twitter at @amstatnews and @amstat_lara, or look for announcements in our monthly member newsletter. If you're a student or early-career member, just make sure you're signed up for the Young Professionals discussion group to receive timely notes about upcoming discussion group events. ■

ASA Strategic Plan Revised

Ask ASA Executive Director Ron Wasserstein what his priorities are and he'll answer, "Enhancing the diversity and breadth of our association, increasing the visibility of our profession, and ensuring the future of our profession." These priorities come directly from the ASA's Strategic Plan (*http://bit.ly/2eKTYi5*), the document that guides the leadership of the ASA in making decisions about the association and which was approved by the ASA Board at its November 2016 meeting.

In 2007, then ASA Vice President Bob Rodriguez led an association-wide effort to develop a strategic plan. That plan was approved by the board in 2008. It has been reviewed every year since and updated as needed. In late 2015, the board decided the plan needed an overhaul and asked Wasserstein to lead a comprehensive review and update of the plan. The current plan is the result of that year-long review.

"The ASA Board and ASA presidents have come to value the strategic plan as the map for moving the ASA forward," said Barry Nussbaum, 2017 ASA president. "The plan provides guidance, but at the same time stimulates creative ideas to address our most pressing challenges."

Wasserstein noted that ASA member input was critical to the development of the strategic plan. "The board received thoughtful input from many members during the past year," Wasserstein said. "Each bit of member input was reviewed by the board, and the suggestions we received shaped critical components of the plan."

To keep the plan fresh and relevant, the board will continue to review it every year, Wasserstein said. He encourages members to look at the plan, particularly the strategies, and make suggestions to him (*ron@amstat.org*) about ways to implement them.

Census Bureau Updates Statistics in Schools Program

The U.S. Census Bureau unveiled its newly updated Statistics in Schools program for K–12 teachers and students in September. Using current and historical data, the Census Bureau provides teachers the tools to help students understand statistical concepts and improve their data analysis skills. The program offers free online activities and other resources in geography, history, math, and sociology.

Over the past two years, Census Bureau subject-matter experts sought the expertise of teachers, education standards experts, and other professionals from across the country to help redesign the program to meet changing classroom needs. Launched initially for the 2000 Census as Census in Schools in partnership with Scholastic, the program aimed to help students better understand the once-a-decade census and the importance of being counted. The new evergreen program provides teachers with searchable activities by grade, school subject, and topic, each aimed at helping increase statistical literacy.

"The Census Bureau is proud to have worked with educators from across the nation on activities that will help increase the statistical literacy of America's youth," Census Bureau Deputy Director and Chief Operating Officer Nancy Potok said. "Understanding the value behind the numbers that measure our changing society will help the future leaders of tomorrow learn how to make data-driven decisions that shape communities for generations to come."

The Census Bureau plans to add Statistics in Schools activities and resources throughout the summer, totaling more than 100 for the upcoming 2016–2017 school year. Activities include "The Progressives and the 1920 Census" for high-school history classes, "An Analysis of the Millennial Generation" for high-school sociology classes, "Two-Way Tables—Walking and Bicycling to Work" for middle-school math classes, and "Changes in My State" for elementary math classes.

"These activities provide teachers with opportunities to teach statistical concepts and data analysis skills to students in various subjects—not just math," said Roxy Peck, California Polytechnic State University professor emerita of statistics. Peck served as a subject-matter expert for the middle- and high-school math activities. "The need for statistically literate citizens continues to grow as we become a more data-driven society."

In addition to downloadable activities and games, teachers can access the following resources on the Statistics in Schools website:

- Videos
- Infographics and data visualizations
- Information to help teachers explain Census Bureau data to students
- Searchable data access tools

For more information about Statistics in Schools, visit *www.census.gov/schools*. ■

Books Arrive in Egypt

A cargo shipment of donated books for the Library of Alexandria arrived recently at the Port of Alexandria.

More than 5,000 research methods books arrived by cargo ship to the Port of Alexandria recently. The books, contributed by many ASA members, were warmly greeted by the team at the Library of Alexandria and unloaded. This effort made the Library of Alexandria the first and largest research methods library in the world. In the next few weeks, the books will have individual donor plaques included in them and be shelved. If you would also like to donate books, contact Ronald LaPorte at *ronaldlaporte@gmail.com.*

Damage from Hurricane Matthew in the south

Haitian Aid Survey: Field Notes from a Statistician

Monica Dashen, Statistics without Borders

Hurricane Matthew pummeled the southern and northwestern portions of Haiti, a Caribbean island, with 140 mph winds and torrential rain storms October 3–4, 2016. Rivers flooded, sweeping away personal belongings, crops, animals, and homes. People sought shelter in nearby schools and churches or with family members. The wind turned nails, tin roofs, and tree branches into daggers, increasing the chance of tetanus. Cholera outbreaks occurred. Medical facilities were destroyed.

Prior to Matthew, many people resided in poorly constructed concrete homes with limited access to latrines and clean water. Haiti is ranked 163 out of 183 countries in the UN Human Development Index, and Matthew made the situation worse.

On October 7, the Dominicans were the first to arrive with 5,000 trucks filled with food and sanitation supplies. They repaired roads along the way and unloaded the aid at a distribution site in Port-au-Prince, the Haitian capital.

Other aid organizations followed suit. USAID delivered tarpaulins and sanitation kits. The UN offered food and mapped out Matthew's path, including the location of closed cholera clinics. The Salvation Army deployed their troops to assess and repair damage to the schools in the hardest hit areas of the south. Dutch volunteer doctors stitched up injuries.

Typically, aid distribution from large organizations is coordinated through the Haitian government, and, in many cases, dropped off at a school or other public facility in a southern commune center. The people residing in the nearby sub-communes some 15 to 120 minutes away by car must find a way to get the aid from the center.

Disasters bring chaos, but data can clarify the situation. Aid organizations can readily report the "whats" and "hows" of the distribution. The UN's Office of Coordination Humanitarian Affairs (OCHA) provides weekly updates of supplies delivered, as well as assessments. But the "whos" are unknown. There are fairly rural parts of Haiti in the south. Are only those people closest to the distribution site receiving the aid? Here is where Statistics without Borders (SwB) stepped in.

Photos by Monica Dashen

The team (from left): Chauncy, Franzlande, Ginny, Emilio, Mackenson, and Antoine

A Survey to Determine the 'Whos'

Through a survey sponsored by the American Statistical Association, SwB sought to find out who received aid, who did not receive aid, and how Matthew affected them. This type of aid distribution/aftermath survey can be readily applied to an immediate crisis situation like Matthew or more prolonged ones like famines in Ethiopia.

Recognizing that a conclusion of "there was a hurricane and aid arrival and distribution is slow," would be uninformative, Rachel Green of SwB and I spent time figuring out how to get at the inside story. We designed a survey instrument that assessed home damage, job loss, and family member displacement after Matthew. We also looked at whether people could recognize the danger signs of tetanus and cholera (both treatable diseases) and know where to go for treatment, given that Matthew destroyed many medical clinics.

Monica Dashen, who has a PhD in applied psychology and retired early from the Bureau of Labor Statistics, enjoys traveling overseas. Her last Statistics without Borders adventure involved a maternal and infant care survey in Myanmar.

Phone penetration is lower in rural areas than urban areas, and much of Matthew's damage occurred in the rural areas. Likewise, Haiti does not have area codes, making it difficult to target certain regions.

The impact of the survey results was time sensitive. SwB members needed to be in the field to witness the aftermath well before the locals were back on their feet and before people left the shelters (e.g., schools) and returned to their repaired homes. First responders would be packing up shortly and getting ready to head home. Time was ticking and SwB needed to be on the ground.

On the Ground

I arrived five weeks after Matthew to conduct the survey. Reaching out to respondents in a timely manner would prove to be a challenge in Haiti. SwB members initially thought a mobile phone survey was the best candidate, because phone penetration is high in Haiti. In addition, people did not have to pay to receive incoming calls. Likewise, the survey could be administered and data collected quickly in tightly controlled conditions.

But phone penetration is lower in rural areas than urban areas, and much of Matthew's damage occurred in the rural areas. Likewise, Haiti does not have area codes, making it difficult to target certain regions.

As a result, we conducted 100 face-to-face interviews in the south, along with 154 phone interviews throughout the country. Nationwide interviews allowed us to compare the effects of Matthew throughout the country. We expected some areas to be unscathed and others destroyed.

The key to implementing this survey was local knowledge of the area and culture. SwB recruited Antoine Wesner, a university professor who helped conduct a 2010 earthquake survey.

Commune and sub-commune section selection was contingent upon road conditions and lodging (Matthew destroyed many of the guest houses and roads). Unfortunately, detailed maps at the subsection level (4th administration level) and up-to-date population maps are nonexistent in Haiti. To figure out the beginning of one sub-commune and the end of another, Wesner recommended we ask the people to show us their ID cards. In one instance, a subsection was so spread out that the team spent 30 minutes driving from home to home asking about the boundaries before crossing into another subsection.

En route to our guest house in Le Cay, the team and I witnessed trees knocked over by Matthew and tarpaulins on tin roofs. Patches of shiny tin interlaced with tarnished tin could be seen readily from our truck. Had SwB arrived too late? Were these people back on their feet? To allay this fear, I quickly reminded myself of our plan to interview those people residing at the commune center and then those farther away at various sub-commune sections.

In the Field

Our first commune was about a 15-minute drive from the only thoroughfare in the south. We visited a local hospital first and the peoples' homes afterward. The hospital located next to the major road was still running. The nurse reported an uptick of injuries, rheumatism, and tetanus cases after Matthew.

People residing in the commune center reported injuries from Matthew, as well as loss of their homes and animals. These people, who are farmers, cannot reseed or earn extra money from their crops, since Matthew swept away their seeds and crops. They must buy food or eat from their food stashes. When asked about damage to their homes, the people started to discuss their plans to rebuild, but tears quickly filled their faces. Sadness turned to anger as people reported not being able to pay a dollar or more for the right to stand in line for aid. Relatives and neighbors sitting nearby nodded and at times chimed in with their own stories. The interviewers politely nodded and returned the conversation to the respondent. Private interviews were difficult to obtain.

Lavender-scented antibacterial soap was used as an incentive. It was meant to honor the people while also having a health component, but we quickly

learned the soap was not enough. The people viewed it as a tease, and they needed a lot more. A group surrounded us and angrily demanded money while we were packing up the truck and coordinating plans. These people felt that because we took pictures and asked questions about Matthew and aid, we should give them something besides soap. We listened and left. Such a reaction was unanticipated, as team members were in the south just prior to Matthew and did not experience this level of anger. The people were starving.

During the four days in the field, the team heard the same stories, but with twists. Those people who lived farther from the commune center could not afford the transport to the center to pick up the aid or simply did not know about it. Others reported that the sub-commune head brought in aid, but either kept it to himself or offered it at a price. Still others reported that the strongest prevailed when aid was tossed off a truck or their commune head did not have an "in" with the government to receive aid. One respondent thought aid should be delivered door-to-door with an armed guard. Returning to the truck, the team discussed the pros and cons of aid distribution. Door-to-door distribution was too time consuming for a large organization. Bulk deliveries clearly did not work. Micro-credit is a long-term solution. There was no simple short-run solution.

On our last day in the field, the team conducted interviews in communes along the coast. One woman who had a surprisingly positive disposition lost her 13-year-old daughter to Matthew and her husband to the 2010 earthquake. Her home was destroyed, but she remained there as she had nowhere else to go. Two American carpenters were working nearby repairing a neighbor's home.

Our spirits continued to lift as we saw shiny tin roofs dotted along the hillside of the next sub-commune, which was an hour away. An NGO had delivered the roofs a week or two prior to our arrival. Likewise, a local priest secured beans and rice for his people in a nearby sub-commune. Aid was found in the most unlikely places, some two hours from the nearest commune center.

Our return to Port-au-Prince was delayed due to a road blockage. Here, angry protestors chopped down trees and lit the branches on fire because their children could not return to school. Matthew's victims, whose homes were destroyed, still sought shelter in the school. Our guide paid the protestors $5.00 to move the branches and let our truck through. We stayed in Le Cay that night and returned to Port-au-Prince the following day to process the data and start the phone survey.

The Call Center

The following day, we sought to obtain 250 completed nationwide phone cases in three-and-a-half days. Our call center was the patio of the Coconut Villa hotel in Port-au-Prince. We were tired from our field experience, so we scaled down to 150 completed cases. The new members became fed up with dialing a string of 25 nonworking numbers before reaching a working one. A sample of randomly selected working phone numbers provided by the phone company was unavailable. Instead SwB produced a list of randomly generated phone numbers.

To reduce interviewer frustration, we tinkered with the randomly generated numbers. The team tried the "last digit up and down" approach and obtained more hits. That is, if the last digit of a working number was a six, a team member dialed a five. Taking this one step further, the team tinkered again with the last digit of known southern phone numbers (those obtained in the field). The thinking was that the phone companies sold blocks of phone numbers to people in various regions. Our first try led us to someone in the less accessible area of the south, but the remaining attempts led us to the north and west departments. These outcomes gave us an indication that the phone numbers were not sold in blocks.

Phone credit was given out at the end of each day to the people we interviewed, but was subject to phone company delays. Interviewers received "reminders" of phone credit delays at all times of the day and night, but they fizzled out toward the third day.

The last and fourth day was devoted to reinterviews. We wanted to make sure enough time had passed for everyone to receive credit, as delays in credit may lead to refusals. This was a mistake, because nearly everyone was at church Sunday morning and did not answer.

Eventually, the team was able to eke out nine reinterviews, but they complained that people changed their answers to some questions in the

hopes of garnering more aid. The thinking was that if we were calling back to confirm their answers, we might give them something besides phone credit.

What's Next?

The next steps involve producing tables of job loss, home damage, and aid distribution for the entire country. Greater home damage and job loss is expected for the Matthew-affected regions. The report generated from the tables will be sent to officials in the Haitian government and at USAID. Likewise, members of the Haitian diaspora who have medical background will be sent a report and asked to help spread the word about the danger signs of cholera, tetanus, and pneumonia. Here, the hope is that by spreading the word, awareness will be raised and long-term changes made.

As for short-term changes, some members of the Haitian diaspora recommend going directly to the people (e.g., delivering food and cash to those displaced people in shelters). Others recommend Christian Aid as an effective organization, along with Catholic Charities. For example, Christian Aid supports Haiti Survive, an NGO, that helps people rebuild their lives by giving them animals.

The old adage that "looks can be deceiving" applies to this situation. On the surface, it looks like the Haitians are rebuilding their lives five weeks after Matthew. Along the main road in the south, I spotted patched roofs, trucks loaded with food, and SUVs filled with western medical workers. These observations were consistent with the foreign aid reports I read. Getting off the main thoroughfare and walking around the communes on the first day, however, I was surprised to see the damaged homes and learn about the lack of aid. ■

Survey: Employers Struggling to Meet Demand for Data Analysts

More and more public and private sector employers are adding statisticians and data analysts to their ranks, but are having a difficult time finding qualified candidates, according to a new national survey released by the Society for Human Resource Management (SHRM) and sponsored by the American Statistical Association.

"Jobs of the Future: Data Analysis Skills" shows that—over the past five years—nearly two-thirds of organizations (65%) increased the number of positions requiring data analysis skills and more than half (59%) expect to increase the number of positions at their organizations over the next five years. Four out of five responding organizations (80%) have positions that require data analysis skills, and another 2% expected to create positions in 2016. Those employers who filled a data analysis position within the last 12 months faced a challenge, with 78% reporting they had difficulty recruiting qualified candidates.

"Although data show that the number of students pursuing degrees in statistics is growing, and has been for more than 15 consecutive years, there is real concern that this growth may not be enough to satisfy the high demand for statisticians and other data analysts across all sectors of the economy," says Ron Wasserstein, ASA executive director. "It is important that employers and the statistical community work together to encourage more students to study the statistical sciences so that supply begins to meet demand."

For the purposes of this research, data analysis skills are defined as the ability to gather, analyze, and draw practical conclusions from data, as well as communicate data findings to others. Examples of jobs that require data analysis skills include data analyst, data scientist, statistician, market research analyst, financial analyst, and research manager.

Many organizations need professionals with these skills outside of the accounting and finance departments, where they are most commonly used. A significant number of responding employers hire individuals to analyze data in multiple areas, including information technology, marketing, advertising and sales, supply chain and operations, and customer service. The survey shows that one in two organizations use data analysis in the business and administration function, while more than half (54%) of human resources departments have at least one data analysis position. The vast majority of these positions (98%) are full time.

The survey also found the following:

- Organizations with 10,000 or more employees were more likely than smaller organizations to have data analysis positions in the human resources and supply chain and operations functions.
- Publicly and privately owned for-profit organizations were more likely than government organizations to have data analysis positions in the marketing, advertising, and sales function.
- Publicly owned for-profit organizations were more likely than nonprofit and government organizations to have positions requiring data analysis skills in the supply chain and operations function.

As data increasingly play a role in a growing number of professional positions, these types of occupations are projected to grow faster than average in the coming decade. The Bureau of Labor Statistics projects employment of statisticians alone will grow 34% from 2014 to 2024, compared to 28% for mathematical science occupations and 7% for all occupations.

In response to this demand, colleges and universities across the nation are expanding their statistics programs. The number of universities granting degrees in statistics increased 50% for bachelor's degrees and 21% for master's degrees from 2003 to 2015. From 2000 to 2015, bachelor's, master's, and doctoral degrees in statistics and biostatistics grew at 512%, 309%, and 133%, respectively.

Access the complete findings of the SHRM/ASA survey at *www.amstat.org/asa/files/pdfs/Data-Analysis-Skills_SHRM_Survey.pdf*. ■

DATA CHALLENGE ON TAP FOR JSM2017

Participants Will Analyze a Government Data Set Using Statistical and Visualization Tools and Methods

The ASA Statistical Computing, Government Statistics, and Statistical Graphics sections will sponsor Data Challenge 2017 at JSM in Baltimore, Maryland. The contest is open to anyone interested in participating, including college students and professionals from the private or public sector.

This contest challenges participants to analyze a government data set using statistical and visualization tools and methods. There will be two award categories: Professional (one level) and Student (three levels).

Contestants will present their results in a speed poster session at JSM, so they must submit their abstracts to the JSM online system in the usual manner. Presenters are responsible for their own JSM registration and travel costs, as well as any other costs associated with JSM attendance. Group submissions are acceptable.

To enter, contestants must do the following by February 1:

- Submit an abstract for a JSM 2017 speed poster session and specify the Government Statistics Section (GSS) as the main sponsor
- Forward the JSM abstract to Wendy Martinez at *martinez.wendy@bls.gov*

The data set for the GSS Data Challenge 2017 will be the Consumer Expenditure Survey (CE). Public use data files and documentation (file structure, data dictionary, sample code, etc.), are available at *www.bls.gov/cex/pumd.htm*. Contestants must use some portion of the CE data, but may combine other data sources in the analysis.

Standard tables showing expenditures and related information for various demographic groups are available at *www.bls.gov/cex/tables.htm*. An experimental table showing detailed average annual expenditures and other information for all consumer units (similar to a household or family) in the United States is available at *www.bls.gov/cex/2014/research/allcuprepub.pdf*. For more information, see *www.bls.gov/cex*.

Entering the Data Challenge 2017

Contestants must do the following by February 1:

- **Submit** an abstract for a JSM 2017 speed poster session and specify the Government Statistics Section (GSS) as the main sponsor
- **Forward** the JSM abstract to Wendy Martinez at *martinez.wendy@bls.gov*

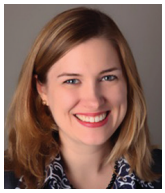
The following examples of research using the CE data are also available:

- Monthly Labor Review articles: *www.bls.gov/cex/csxart.htm*
- "Beyond the Numbers" series: *www.bls.gov/cex/csxwebarticles.htm*
- "Spotlight on Statistics" and other series: *www.bls.gov/cex/csxspotlight.htm*; *www.bls.gov/cex/csxissus.htm*

Contact Wendy Martinez at *martinez.wendy@bls.gov* with questions. ■

Q&A with Erin Tanenbaum and Eric Vance about *TAS* and Mentoring

The American Statistician *editorial team developed a special issue of* TAS *with a section focused on mentoring in support of statisticians and their professional practice. The special issue was coedited by Erin Tanenbaum of NORC at the University of Chicago and Eric Vance of the University of Colorado, Boulder. Here, they answer a few questions about it.*



Tanenbaum

Vance

Why did you choose to do a special section on mentoring?

Eric: Mentoring was the Committee on Applied Statisticians' major initiative from 2013–2015. Erin has been chair of this committee since 2014, so she'll speak more about that. Mentoring was also one of ASA President David Morganstein's presidential initiatives in 2015. We thought a special section on mentoring would help continue this momentum, which is important because we feel mentoring is essential for our profession. Too many statisticians feel isolated at work or underappreciated or misunderstood by their nonstatistical colleagues. Also, the field of statistics is changing quickly. Mentoring can help statisticians develop professional and nontechnical skills to improve collaboration and productivity at work, as well as add new technical skills to keep pace with the state of the art. To me, mentoring is about enabling success and can help improve the practice and profession of statistics.

Erin: Mentoring offers one opportunity for accelerated professional growth in a way that may not be taught in school. The special section on mentoring is the culmination of a lot of hard work on the part of the Committee on Applied Statisticians (CAS). The committee hoped to strengthen ASA membership and brainstormed ways to accomplish that back in 2012. Mentoring quickly rose to the top of the list as one area that needed attention within ASA. Each CAS member had a unique story of how mentoring helped them not only in their careers, but also with getting the most out of their ASA membership.

Our first task, the committee's mentoring clearinghouse, provided a list of all active ASA mentoring initiatives. The clearinghouse quickly showed that ASA mentoring programs typically last only a couple of years within a chapter, section, or committee. So, we developed a sustainable program by authoring "Mentoring in a Box," a how-to guide for organizers considering starting a mentoring program.

Starting in 2013, the committee matched mentors and mentees in a pilot program. The committee then assisted with the creation of the Conference on Statistical Practice (CSP) and JSM mentoring programs and aided numerous ASA organizations in starting mentoring programs of their own. Yet, there is still a lot of additional work to do in this area. The number of ASA mentor and protégée pairs is relatively low, in part because many ASA members don't know the programs exist and also in part because members don't take advantage of formal programs of this nature. Yet, statisticians need not have a formal program to be a mentor or be mentored. In fact, the committee also created "DIY Mentoring," a how-to guide that aids anyone interested in finding a mentor and creating a constructive mentoring relationship.

Erin, you are in Bethesda, Maryland, and, Eric, you are in Colorado. How did you two work on the issue together?

Erin: We're kind of a well-oiled machine at this point. Eric and I have worked together on the committee for four years now. We call on each other for personal and professional reasons, so this was just one more reason to put our heads together and push full steam ahead.

Eric: That's right. We had initial planning meetings in 2015 via Google Hangouts, which also included Mary Kwasny, David Morganstein, and Donna LaLonde. When we really needed to be productive in 2016, Erin and I scheduled weekly phone calls to a) update each other on progress; b) determine next steps; and c) add motivation to finish our tasks so we would have something to report the next week.

What can readers expect to read about in the special issue?

Eric: We have 11 great articles on the following aspects of mentoring in this issue:

- Advice from mentors on developing a career in statistics
- How to create mentoring programs in sections and chapters and at conferences
- The effectiveness of various models of mentoring programs in the workplace
- Undergraduate mentoring in academia
- How mentoring can improve representation of women and minorities within statistics
- Perspectives on effective mentoring
- What the ASA is doing regarding mentoring

What do you hope readers take away from this issue?

Erin: I hope readers see the wealth of mentoring opportunities at their fingertips, as well as the value of mentoring. It's very easy to get caught up in our day jobs and put blinders up, instead of getting involved in outside activities like being a mentor or protégée. And yet, the personal and professional benefits of mentoring are undeniable. For example, mentoring has been shown to increase employee satisfaction, the rate of promotions, a person's professional network, and, in some cases, mentoring can help a person answer tough analytical problems at work.

I've talked with a lot of ASA members about mentoring and was surprised by the number of statisticians who thought mentoring was about improving technical knowledge. Sure, that can be part of the equation. If, say, Joe is my mentor and Joe happens to be an expert on logistic regression, he may point me to an article to help me with my current technical challenges. But that's such a tiny sliver of my relationship with Joe. Joe's role is also to add perspective to my current work experiences, to answer my questions about collaboration challenges, and maybe even to offer suggestions on ways to improve my impact or satisfaction within work. So, I hope the reader starts to think about mentoring in new ways.

Eric: I hope readers will be inspired to become a mentor or to find a mentor. A mentor can become more successful by helping fellow statisticians become successful. Even better, I hope readers will use the papers as guidelines to create a mentoring program in their section or chapter or at a conference they may be helping to organize. Now is the time to lean in to promote the value of statistical thinking by promoting the careers of our fellow statisticians.

Do either of you have plans to edit or coedit another journal in the near future?

Erin: Great question. I'd definitely be interested in editing in the future, but no plans yet. Being an editor this year was particularly rewarding and challenging as I was faced with hardships at home. This year, we endured a house flood that left us living in a hotel for three months, and my family spent a couple weeks at the hospital for various health issues. Luckily, this year is an anomaly—not the norm—and having outside ASA activities makes the stresses of home life (and work!) feel more tamable. The ASA is excellent in offering flexibility when taking on roles like this because they know that editing is not our "day job." So, yes, I would love to edit again. Especially since we're back in our house and my family's health is good (knock on wood). Here's hoping the next time I'm offered such a role, I'm faced with just a little less adversity.

Eric: The Committee on Applied Statisticians has developed a new initiative surrounding statistical collaboration. What is collaboration? How does it differ from statistical consulting? How do we train statisticians to become effective collaborators to have more impact and success at work? What aspects of leadership skills need to be incorporated to prepare statisticians to become more effective collaborative statisticians? How can we collaborate with data scientists for mutual benefit? How do we educate users of statistics and data science to more often and more effectively collaborate with statisticians? I think a special issue on this topic would provide tremendous benefit to the statistics community. A special issue on statistical collaboration, along with a workshop or conference on this topic, could help create a community of practice around this issue that will position statisticians to have much more impact now and into the future. I'll bring this up next year when the new editor-in-chief of *The American Statistician* is selected and announced. ■

MORE ONLINE
Mentoring in a Box is a list of resources offered by the Committee on Applied Statisticians. To access the mentoring clearinghouse list, log in to ASA Members Only at *www.amstat.org/membersonly*.

ASA EARLY CAREER PROFILES:

Bachelor's-Level Graduates in Statistics and Data Science

Organized by the ASA Section on Statistical Education

What can I do with an undergraduate degree in statistics or data science? Take a look at what these individuals are doing. They are employed at early stages of a career after graduating from a bachelor's degree program that included training in statistics or data science.

Travis Britain

Statistics and Data Science at Work

My industry (insurance) is all about understanding risk. I may not be writing R script every day in my strategy job, but the mindset I developed from studying statistics is absolutely priceless. Strategy consulting—particularly in my industry—demands an acute appreciation of uncertainty, an ability to find elegance in complex systems, and—perhaps most importantly—the ability to synthesize a large volume of complex information and communicate the findings to a diverse (often nontechnical) audience in a way they can understand and act upon.

Favorite Undergraduate Statistics Class

My favorite undergraduate statistics class was, bar none, Statistics of Causal Studies, in which we learned the theory of and various practices for inferring causation from not only formal experimental studies (such as an RCT), but also observational studies using techniques such as propensity score matching. At the time, I was helping a nonprofit in Boston better understand how to understand their social impact, so I had a really unique opportunity to apply what I was learning in the classroom.

Advice for Students

It hurts my brain to think about how rapidly the world of data and information is evolving. By studying statistics, you're already well ahead of the pack! The best advice I can give to you now is to seek out opportunities to apply statistical methods to a wide variety of disciplines to best position yourself for the future. In undergrad, I used statistics for applications in health care, traffic safety, public policy, finance and economics, law, engineering, and countless others. Each discipline provides new learnings and new techniques that reinforce the others, and by building a breadth of experiences as an undergraduate, you'll be in a better place to reflect on what areas you enjoy the most and where you can add the most value to the world.

BIOGRAPHY

Undergraduate School: Duke University
Graduation Year: 2015
Position: Associate Consultant - Corporate Strategy
Company: Liberty Mutual Group
Sector: Consulting

BACKGROUND

BS in statistical science and economics

Bayes Impact Fellowship for nonprofit data science

Active in nonprofit and foundation impact evaluation

JOB DESCRIPTION

Provide internal strategy consulting services for Liberty Mutual Insurance Group, a Fortune 100 company, focused on high-impact problems in strategic planning; financial, competitive, and operational analysis; and capital investment

Sample projects include strategy design for Liberty Mutual Foundation, catastrophe claims operating model review, and Ireland profitability analysis and turnaround strategy

Jieyu Gao

Statistics and Data Science at Work

Data visualization tools, including bar graph, histogram, and error bar graphs; scientist test: ANOVA, F-test, independent t test

Favorite Undergraduate Statistics Class

Experimental Design was a very practical and useful class, especially introducing how to design experiments to gather the most useful data at the designing stage.

BIOGRAPHY

Undergraduate School: Purdue University
Graduation Year: 2016
Position: Emerging IT Leaders
Company: Purdue University
Sector: Science/ Technology

BACKGROUND

Undergraduate researcher in Alex Chubykins lab

Data analysis using Jupyter Notebook and R

JOB DESCRIPTION

Research computing TACC STATS project

Analyze the data to show the visualization of the performance of clusters

Python, Jupyter Notebook, Linux

Faculty project

Providing suggestions on data analysis of different fields of research projects

Brittany Cohen

BIOGRAPHY

Undergraduate School: Duke University
Graduation Year: 2014
Position: Quality Assurance Engineer
Company: Applied Predictive Technologies
Sector: Science/Technology

BACKGROUND

BS in statistics, minor in computer science, graduated cum laude

Internships with Publishers Clearing House, Bureau of Economic Analysis, and Applied Predictive Technologies (turned into full-time opportunity)

JOB DESCRIPTION

Validate front-end software and back-end analytics

Derive new analytics to be implemented in our software platform

Work with product managers and client users to understand business use cases

Statistics and Data Science at Work

At APT, we develop a software platform that allows major companies to make data-driven decisions. We are constantly looking for new analytic methodologies to implement and for ways to improve our existing methodologies. I have been able to get involved with the team that uses statistics to develop new significance formulas for our complex analyses. I have been able to apply learnings from my probability course, among others, to take the variance of unintuitive expressions.

Favorite Undergraduate Statistics Class

My favorite undergraduate course was Statistical Consulting, which is a course I took as an elective. In this course, we helped researchers and organizations on campus that were in the middle of doing research and had statistical questions. This course was really exciting to me because it allowed me to understand the importance of statistics in a variety of fields. It was exciting to see that, even in the middle of my college education, I was able to make an impact in research in multiple industries.

Advice for Students

I think one of the most advantageous things I did during my college career was to combine statistics with computer science. The two go hand-in-hand, and I was fortunate enough to find a job that allows me to continue using my statistics knowledge!

Ariana Montes

Statistics and Data Science at Work

My current role is not heavy in statistics, but I have been able to utilize a lot of knowledge from my undergraduate education related to consulting. I am on the phone with clients gathering requirements and come up with practical solutions to solve their business needs.

Favorite Undergraduate Statistics Class

Statistical Consulting and Analysis of Cross-Classified Data

Advice for Students

Network as much as you possibly can! Try to attend conferences in the industry you're interested in, introduce yourself to as many people as possible, and connect with everyone on LinkedIn. You'll be surprised how important networking is in your future career.

BIOGRAPHY

Undergraduate School: California Polytechnic University, San Luis Obispo
Graduation Year: 2014
Position: Configuration Engineer
Company: Apttus
Sector: Science/Technology

BACKGROUND

BS in statistics

Summer research intern at Cal Poly

JOB DESCRIPTION

Responsible for the design and implementation of CPQ for a reputable Fortune 500 company

Advanced knowledge of product and pricing architecture

Involved in identifying and delivering complex requirements

Work closely with project team to deliver an advanced design

Develop excellent working relationships with clients

Emily Hadley

Statistics and Data Science at Work

Though my job title may not indicate a data focus, data is a crucial part of my work. On the job, I am always collecting data about the students I work with, from demographic information to standardized test scores to counting one-on-one interactions with individual students. I use this data to understand my strengths and weaknesses and set goals. For example, my data show that female students are far more likely to seek out my help repeatedly while male students are likely to come once, so I have developed programming to re-engage my male students. The national office uses adviser data to tell a larger story of the importance of College Advising Corps. I also serve as a College Adviser Corps data and policy fellow, where I am on a team of researchers investigating how College Advising Corps can use both quantitative and qualitative data to inform its work, particularly as it relates to underclassmen.

The community I serve also has a dearth of statisticians, so I have been called upon to do pro bono data analysis for the school board, the local community college, and other institutions. This has included working in development of data tracking systems and survey methods, as well as analysis of existing data sets such as regression and model building.

Favorite Undergraduate Statistics Class

Statistical Decision Analysis, as it applied Bayesian theory to logical decision making, and Statistical Consulting, as it helped develop both analysis and communication skills as they related to statistical analysis of community projects

BIOGRAPHY

Undergraduate School: Duke University
Graduation Year: 2015
Position: College Adviser
Company: College Advising Corps
Sector: Government/Education

BACKGROUND

BS in statistical sciences and BA in public policy studies from Duke University

Internships with the New Hampshire Governor's Office of Citizen Services and The Education Trust, both giving me the opportunity to apply my statistics skills in the policy realm

Statistics senior project and public policy senior thesis that focused on predicting and addressing high-school dropout in rural North Carolina

JOB DESCRIPTION

AmeriCorps position looking to increase college access for students from all backgrounds by placing recent college graduates in high-need schools

Advise 120 seniors at a low-income, rural high school in North Carolina on post-secondary opportunities

Organize college access events, including financial aid sessions and college representative visits for all 540 students

Track data to measure impact of programming

Advice for Students

I believe one of the greatest powers of data and statistics is to shine a spotlight on issues that are often neglected, particularly in the policy world. So my advice is to not be afraid of following a path that is not traditional in the realm of statistics. Once a community knows you are a statistician, they will often seek you out for a wide variety of projects and your statistical expertise will grow in surprising, relevant ways.

Trevor Smith

Statistics and Data Science at Work

I use stats on a daily basis for my job. I use R to run analyses on different ad campaigns. I also use my statistical background to help identify potential sources of bias in various experiments that we create and run.

Favorite Undergraduate Statistics Class

Advanced Data Analysis—I liked the broad coding experience and the ways that we connected coding to theoretical statistics and real-world examples.

Advice for Students

It is really important to get a solid understanding of the theory behind statistics while studying it. Most of the coding can be learned quickly on the job.

BIOGRAPHY

Undergraduate School: Amherst College
Graduation Year: 2016
Position: Analyst
Company: Hillary for America
Sector: Government/Education

BACKGROUND

Statistics and political science majors

Internship with Capital One

Competed at UMASS DataFest

JOB DESCRIPTION

Analysis of digital ad campaigns

Constructing and publishing performance reports

Running tests

Corinne Idzorek

Statistics and Data Science at Work

In my position, we use statistics every day. We are constantly evaluating and cleaning data, utilizing multiple exploratory data analysis techniques to find important variables, and building predictive models. We test everything from logistic regression models to neural networks and ensemble models for every project. Ultimately, we have to be able to communicate our methods, decisions, and results to others within the organization.

Favorite Undergraduate Statistics Class

Statistical Modeling and Advanced Statistical Modeling were my favorite classes because we learned so many useful techniques for cleaning, exploring, analyzing, and modeling real data that I use every day at work. We also learned how to communicate techniques and results so they were accessible to everyone, which was so important to learn from the start.

Advice for Students

Every department at pretty much every company wants someone who can take their data and find meaning in it. Regardless of what sector or area of business you're interested in, there are opportunities. With Big Data becoming the norm, everyone wants to get their hands on more information and be able to get something (statistically) significant from it.

BIOGRAPHY

Undergraduate School: St. Olaf College
Graduation Year: 2015
Position: Business Intelligence Analyst
Company: Thrivent Financial
Sector: Financial/ Banking

BACKGROUND

Economics and mathematics double-major, with a concentration in statistics

Summer internship as a marketing analytics intern at Thrivent Financial

Courses in statistical modeling, advanced statistical modeling, probability theory, statistical theory, algorithms for decision making, and econometrics

JOB DESCRIPTION

Create predictive models from customer data that determine which products are marketed to whom

Explore Big Data opportunities to bring in new, publicly available data for prospecting

Gather and manipulate internal data based on requests to help evaluate current business and influence change

Jonathan Jordan

Statistics and Data Science at Work

At Nymex, I mostly use data to understand the stories of particular industries and high-level trends. Organizing and understanding data regarding growth rates, prices, and volume are the most common ways I use my statistics background.

Favorite Undergraduate Statistics Class

Intermediate Statistics—great introduction to regression and my first real experience diving into a data set to tell an interesting story

Advice for Students

Take a statistics class as early as you can!

BIOGRAPHY

Undergraduate School: Amherst College
Graduation Year: 2015
Position: Investment Banking Summer Analyst
Company: Nymex Capital
Sector: Financial/ Banking

BACKGROUND

BA in economics and statistics

Statistics fellow

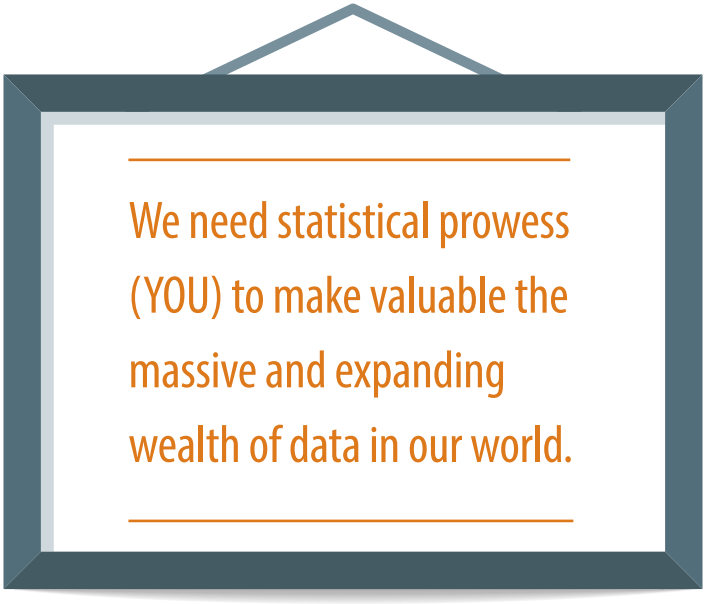
Investment banking summer analyst

JOB DESCRIPTION

Build operating models with DCF, M&A comps, and public comps

Conduct research on industry, competitors, expected synergies, and historical prices

Prepare pitch books that include industry overview, model, and analysis



Dana Udwin

Statistics and Data Science at Work

We are constantly using statistics both to serve MassMutual's broader mission of selling policies and to streamline or improve internal processes. For example, one project utilized k-means clustering to identify subpopulations within the MassMutual consumer base. Even when building dashboards to visualize large, messy data, we are thoughtful and methodical in choosing what metrics are valuable and how to calculate and portray these metrics in a clear, accurate way. We built such a visualization to track enterprise-wide spend, an example of supporting internal processes.

Favorite Undergraduate Statistics Class

Ben Baumer's undergraduate data science course at Smith College was a great crash course in all things data science: databases, large-scale analyses, and exploiting outside sources to discover knowledge with efficacy and panache (look up Mark Hansen to see Big Data and art collide).

Advice for Students

Take the coursework that interests you. Become a tutor to help you review, refresh, and test your own understanding. A couple of programming classes will come in handy later on. Look for research opportunities in any department at your school or domain out in the workforce; there are interesting problems in unexpected places that can be solved with data. And statistics is awesome! We need statistical prowess (YOU) to make valuable the massive and expanding wealth of data in our world. ■

BIOGRAPHY

Undergraduate School: Smith College
Graduation Year: 2014
Position: Data Analytics Consultant
Company: Massachusetts Mutual Life Insurance Company
Sector: Insurance/ Actuarial

BACKGROUND

Mathematics major with a concentration in statistics

East Asian languages and literature minor

Summer undergraduate research fellow at the National Institute of Standards and Technology (2013) researching contributing factors to performance of face recognition technology on video

Developing statistical activities in R for the classroom with Nicholas Horton (Amherst College)

Ben Baumer's (Smith College) undergraduate data science course

Mathematical statistics in the UMass graduate-level statistics catalogue and machine learning in the UMass graduate-level computer science catalogue

Supporting the Smith College Mathematics and Statistics Department as a teaching assistant and grader for students of introductory statistics (and related classes)

JOB DESCRIPTION

Analyze both internally and externally sourced data using Python, R, and other computational implements of statistical inquiry to create tactical and strategic value for MassMutual

Visualize complex data using a suite of web programming tools (e.g., HTML, Twitter Bootstrap, JavaScript, and associated libraries for data manipulation such as Crossfilter and dc.js)

Attend graduate-level data science courses in the statistics and computer science departments at the University of Massachusetts, Amherst to supplement project-based learning

STAT*tr@k*

Postdocs in Statistics: A Growing Trend

Karl Pazdernik is a postdoctoral scholar in the department of statistics at North Carolina State University. He earned his PhD in statistics from Iowa State University, worked at Intel as a statistical consultant, and spent time at the National Center for Atmospheric Research working on spatial statistics methods.

Twenty years ago, the number of postdoctoral scholars with an emphasis in statistics in the United States numbered in the teens. Of course, the number of doctoral degrees being granted has been growing in all disciplines, and statistics has been no exception. In the October issue of *Amstat News*, Steve Pierson described and illustrated this trend.

For those looking to transition into a tenure-track academic position at a Research I university, the increase in suitable candidates has increased the level of competition for jobs. A successful postdoctoral experience can appeal to the hiring committee within a department, which has led more recent graduates to accept positions as postdoctoral scholars.

Compared to the more linear growth in the number of PhDs being granted, the pattern of growth in the number of postdoctoral scholars has been closer to exponential, as Figure 1 illustrates.

That is not to say all is gloom and doom. Even as a postdoc, those of us fortunate enough to have heard the calling to be statisticians should be grateful. Where your entomology counterpart may be barely hovering above poverty, postdocs in statistics are typically more comfortable financially. In fact, given the history of low wages for many postdocs, a new overtime pay rule has required that postdoctoral researchers get paid at least $47,476 or require reporting timecards (*www.dol.gov/featured/overtime*).

Excessive overtime stuck in a laboratory collecting data while eating top ramen. Although this may be the visual often applied to postdocs, it is unlikely to be a fair depiction of a postdoctoral scholar in statistics. So, what are the challenges and disadvantages? Why apply for a postdoctoral position in the first place?

Challenges

The first challenge you will face as a postdoctoral scholar—and this applies to all postdocs regardless of the field—is that no one will know where to put you. By that I do not mean you will struggle to find an office, although you may be requested to move to free up space or to share an office with another postdoc. I mean you are no longer a student—not quite faculty, but not staff, either. Your university ID will likely say "faculty/staff" on it, but when it comes to benefits, health care, vacation, responsibility, etc., you are unlikely to fit either category.

Postdocs have their own category, which often is not well defined. The resources for both students and faculty at a university are plentiful, but it may require some navigation to take full advantage of those granted to postdocs. Don't wait to learn the ropes!

The second drawback to being a postdoc is the added stress. Is it the same stress experienced by a tenure-track faculty during their first few years at the university? Probably not. However, unless your grant has endless funding, there is likely a time limit to how long you can stay, so the clock is still ticking.

Then there is the obvious disadvantage to being a postdoc: It is a temporary, low-paying job. Yes, you may have it better than most postdocs, but compared to your statistics colleagues in industry, you will be making peanuts.

Benefits

So why bother? A postdoctoral position in statistics can serve the same purpose as in any discipline; it can help bolster your curriculum vitae. This is a great time to finish any unpublished work from your dissertation and create new lines of research.

If you are interested in pursuing a career in academia and did not have the opportunity to teach a course in graduate school, you will almost certainly be given the option. As an academic at a research institution, grant writing will undoubtedly become a primary focus and your principal investigator (PI) may ask that you assist in the process. Your PI will typically have graduate students they mentor, and you may also be called upon to assist in that endeavor. All of this is great experience and will prepare you for the next step in your career. Being a postdoc allows you to peek behind the faculty curtain and get a glimpse of what that career may be like.

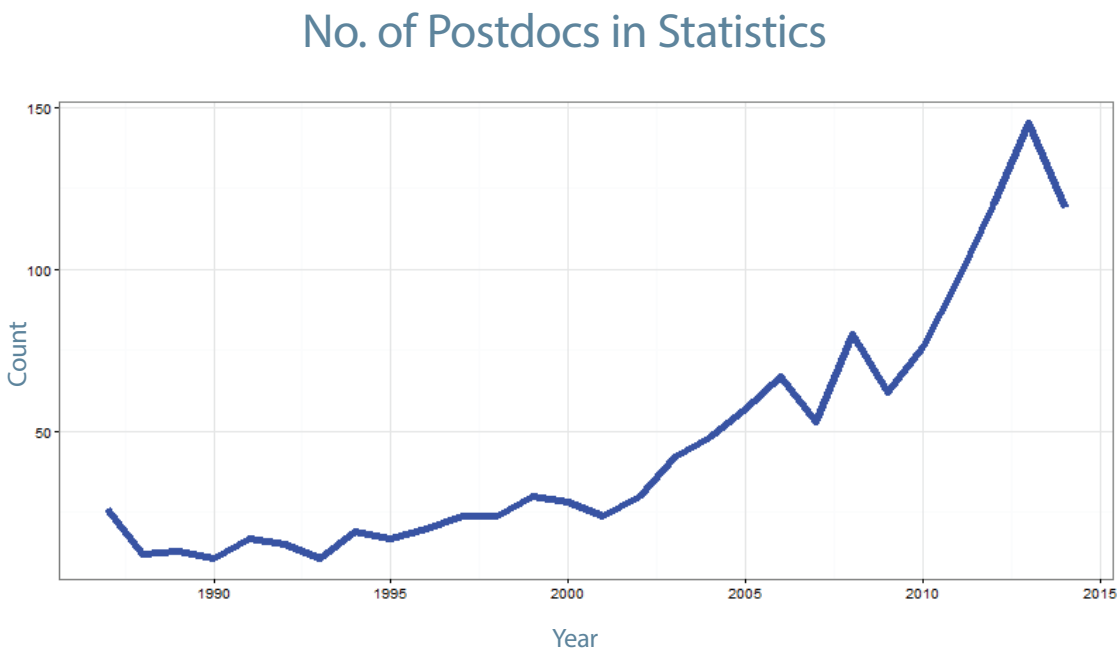


Figure 1. The number of postdoctoral scholars in statistics versus time. The data source is the WebCASPAR database (*https://ncsesdata.nsf.gov/webcaspar*).

So, what if becoming faculty is not your *raison d'être*? A postdoctoral position can still provide value if you are interested in a research-active role, such as working at a national laboratory. In fact, many national laboratories will hire postdocs in statistics and give them the opportunity to grow into a permanent role.

Regardless of an academic, industry, or government career path, where a postdoctoral position can be most beneficial is in growing as an independent professional. Understanding how to network, refining your professional image, and improving your efficiency are all critical to success and skills that can be improved during a postdoc.

Advice

My suggestion to those planning to pursue a position as a postdoctoral scholar is to be as involved as you can without negatively affecting your primary purpose: publication. That means attend your department seminar as often as you can. Interact with the faculty and make yourself visible; an interesting collaboration is often right outside your (office) door. Take the opportunity to mentor undergraduate/graduate students. Even if you don't pursue academia, the experience of being in the mentor role can be both valuable and rewarding. Above all else, when your time is up, feel proud in what you have achieved and confident in the career you've chosen. ■

Call for SPAIG Award Nominations to Recognize Successful Collaborations

Willis A. Jensen and Fanni Natanegara, SPAIG Committee Members

SPAIG Committee Contacts

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Collaboration is one of those words that means many things to different people, ranging from work between two individuals to vast efforts involving many people across multiple organizations. It is something we statisticians do to be successful, regardless of our area of work.

Because we recognize its importance to our profession, it is not surprising that the American Statistical Association wants to encourage and recognize outstanding collaborations. The Statistics Partnership of Academic, Industry, and Government (SPAIG) Committee has been given the charge to accomplish this goal through its mission to "identify, lead, and promote initiatives that foster partnerships between academe and business, industry, and government."

It is essential to bridge the gap between statistical practice and theory, and we want to encourage partnerships that seek to bridge this gap through collaboration. Beyond collaboration with other disciplines, it is crucial to collaborate within our own discipline. We cannot expect to be strong collaborators with other disciplines if we do not collaborate well among ourselves.

What Makes for Good Collaboration?

Effective collaboration generates tangible problems and the use of rich data to create insights, spark questions, and advance science and innovation. Collaboration between academe, industry, and government organizations leads to improved statistical methods that are relevant to real-world problems and makes connections between statistical practice and theory.

What Kind of Collaboration Does the SPAIG Committee Encourage and Recognize?

Examples include workshops and training provided by universities for industry partners, internship programs, joint research efforts motivated by real-world problems, sharing of industry or government challenges resulting in theses and dissertations, and funding and consulting opportunities. With the rapid changes happening in our profession, we are also interested in promoting new kinds of partnerships and collaboration involving new application areas. As technology becomes ever more present and the world gets smaller, we imagine new collaborations may have a virtual component to them. Highlighting a diverse set of collaborations will stimulate more creative collaboration that can continue to advance the field.

The SPAIG committee promotes collaboration by recognizing successful examples through the SPAIG award, which is given on an annual basis. What does it mean to earn this award? We spoke with two past winners to learn more about what goes into earning an award like this. John Kolassa from Rutgers University noted:

> The Rutgers Department of Statistics and Biostatistics developed a very successful collaboration with Pfizer Inc. Our department developed at the same time that rigorous assessment of drug safety and efficacy developed, and the pharmaceutical companies in our geographic area are innovators in this area. Pfizer has long been a key industrial partner. Aspects of this collaboration included a very generous

fellowship for one of our PhD students, a number of internships for both MS and PhD students, a research symposium that alternated between Rutgers and Pfizer, and ongoing research and other collaborations between Rutgers faculty and students and Pfizer personnel. These collaborations, in turn, lead to high-quality publications and career development for our students and alumni.

We are grateful that SPAIG recognized our activities; such recognition increases the visibility of our program and increases the visibility of biopharmaceutical activities within Rutgers and within our department. In the universal struggle for resources, the SPAIG award demonstrates to our administration that statistics is a vital discipline and that our departmental activities are externally recognized for excellence. Building relationships with outside institutions, and, in particular, with institutions outside our sector, took time and energy; in our case, we were fortunate to have counterparts at Pfizer who are easy to work with and eager to participate. Building the types of relationships the SPAIG award recognizes carries great benefits to one's home institutions and to one's neighbors.

Karen Price from Eli Lilly and Company was part of a collaborative effort that won the SPAIG award in 2012 and praised the effort:

Baylor University and Eli Lilly and Company began its collaboration in 1996 when one of the students joined the company after completing her PhD at Baylor.

The development of this long-standing partnership can best be described in different phases:

1) Natural follow-up on dissertation research between the former student and adviser

2) Lilly statisticians partnering with a series of graduate students and/or Baylor faculty on dissertation work and/or research thaat ultimately led to publications and presentations

3) Baylor faculty and students providing formal consultation on Lilly projects, including evaluating various Bayesian methods, providing seminars, education modules, and building Bayesian computational tools to implement the broad use of Bayesian methods at Lilly

The strong and enduring collaboration has brought methodological enhancements to both clinical and nonclinical pharmaceutical applications and provided a successful model for partnerships between Lilly and other universities. The number of graduate students and faculty supported by Lilly, as well as the hiring of Baylor graduate students by Lilly, indicated that the partnership is highly valued by both entities.

Beyond collaboration with other disciplines, it is crucial to collaborate within our own discipline. We cannot expect to be strong collaborators with other disciplines if we do not collaborate well among ourselves.

Have you seen great examples of collaboration? Are you part of an organization that has an effective partnership with another organization? Then we want your help. We want nominations that recognize excellence among collaborating organizations for the ASA SPAIG award.

For nomination instructions and a form, visit *www.amstat.org/ASA/Your-Career/Awards/Statistical-Partnerships-Among-Academe-Industry-and-Government-Award.aspx*. The winner will be recognized before the President's Invited Address at the 2017 Joint Statistical Meetings in Baltimore, Maryland. Nominations are due by March 1. ■

Nominate a Colleague for Fellow

Photo by Eric Sampson/ASA Journals Manager

Last year's 65 ASA Fellows hailed from 22 states; the District of Columbia; and Puerto Rico, Canada, Switzerland, and Taiwan.

The designation of ASA Fellow has been a significant honor for nearly 100 years. Under ASA bylaws, the Committee on Fellows can elect up to one-third of one percent of the total association membership as fellows each year.

Individuals are nominated by their ASA-member peers. To be selected, nominees must have an established reputation and have made outstanding contributions to statistical science. The Committee on Fellows evaluates each candidate's contributions to the advancement of statistical science and places due weight on the following:

- Published works
- Position held with employer
- ASA activities
- Membership and accomplishments in other societies
- Professional activities

To be eligible for nomination, a person must be a current member of the ASA who has held continuous membership from March 1, 2014, to February 28, 2017.

Nominations for Fellow are accepted each year from October 1 to March 1. Visit *ww2.amstat.org/fellows/nominations/index.cfm* to download a nomination form. ■

Nathan Mantel

The Section on Statistics in Epidemiology (SIE) invites nominations for the Nathan Mantel Award for lifetime contributions to the development and application of statistical science to problems and issues in epidemiology.

The award consists of $1,000 and a plaque, which will be presented by SIE at the Joint Statistical Meetings in Baltimore, Maryland (July 29 – August 3, 2017).

The nominee should be a person widely known to have an established record in developing statistical methods for epidemiology. Consideration is not limited to candidates who are members of SIE.

Nominations must:

- Include a CV
- Include a cover letter
- Be sent to Yueh-Yun Chi (*yychi@ufl.edu*), SIE secretary/treasurer, by February 1.

The award is in honor of Nathan Mantel (1919–2002), in recognition of his seminal and pivotal contributions to statistics in epidemiology.

Questions about the award can be addressed to Susan Shortreed, SIE chair, at *shortreed.s@ghc.org*.

Previous recipients of the Nathan Mantel Award include Norman Breslow, Ron Brookmeyer, Mitchell Gail, Ross Prentice, Jamie Robins, Clarice Weinberg, and Alice Whittemore. ■

Natrella Scholarship

Applications for the Mary G. and Joseph Natrella Scholarship will be accepted until April 1. The scholarship will support the participation of two students at the Quality and Productivity Research Conference to be held in Storrs, Connecticut, June 13–15.

Scholarship recipients each receive a $3,500 grant, a $500 travel stipend, complimentary registration for the conference and pre-conference short course, and an opportunity to present their research at the conference. The scholarships are presented annually by the ASA Quality and Productivity Section to honor the career of Mary G. Natrella, author of *Experimental Statistics*, along with her husband, Joseph.

Application is open to full-time students pursuing a master's or doctoral degree at an accredited college or university who have a demonstrated interest in applications of statistics to quality and productivity.

Further information about the scholarship can be found at *http://bit.ly/1RHlxdH*. Alternatively, questions can be addressed to a member of the scholarship committee at *natrella.scholarship.committee@gmail.com*. More information about the conference is available at *www.qprc2017.org*. ■

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

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

Obituaries

Stephen Fienberg Leaves Legacy

Stephen E. Fienberg, university professor of statistics and social science at Carnegie Mellon University, died December 14. He was 74.

Fienberg took different roles throughout his decades-long statistics career: professor, researcher, writer, editor. His focus was on developing methodologies for statisticians to use in other fields of study.

Born and raised in Toronto, Fienberg attended the University of Toronto from 1960 to 1964. He was originally enrolled in honors mathematics, physics, and chemistry, but became hooked on statistics in his third year, when he took his first statistics course.

That first statistics course was taught by Don Fraser, who later became Fienberg's longtime friend and mentor. Fienberg earned his undergraduate degree in mathematics and statistics in 1964 and went on to Harvard University, where he earned both his master's degree in statistics in 1965 and his PhD in statistics in 1968.

During his time at Harvard, Fienberg grew close to assistant professor Paul Holland, fellow graduate student Yvonne Bishop, and founding chair of Harvard's statistics department Fred Mosteller. Not only was Mosteller Fienberg's thesis adviser, he became a mentor and friend.

While Fienberg was a graduate student, Mosteller was involved in research in the National Halothane Study. Halothane was used as an anesthetic, and there were several case studies published in medical journals about people who died after having operations in which halothane was used. The cause of death was usually

Fienberg

unrelated to anything the patients had suffered at the time of their operations. Mosteller and a group of statisticians, including Bishop, were involved in data collection and analysis from more than 25 hospitals across the country, comparing death rates from different anesthetics. That work, Fienberg told *Amstat News* in 2012, led to what is known as modern literature on nonlinear emergent models for categorical data.

Fienberg authored more than 20 books, including Mosteller's autobiography, *The Pleasures of Statistics: The Autobiography of Frederick Mosteller*, which was released in 2010. He co-edited the book with longtime friend and fellow statistician Judith Tanur.

Fienberg served as dean of the Carnegie Mellon University College of Humanities and Social Sciences and vice president for academic affairs at York University, as well as on the faculties of the University of Minnesota and University of Chicago. He was elected fellow of several societies, including the Royal Society of Canada, American Association for the Advancement of Science, American Statistical Association, and American Academy of Political and Social Science. He also won numerous awards. He was honored with the COPSS Presidents' Award for outstanding statistician under 40 in 1982, the prestigious ASA Founder award in 2009, and the NISS Jerome Sacks Award for Cross-Disciplinary Research in 2015.

The ASA is saddened to hear about Fienberg's passing. To read a complete obituary, visit *www.cmu.edu/news/stories/archives/2016/december/obituary-fienberg.html.*

To read more about Fienberg's life, visit *http://magazine.amstat.org/blog/2012/09/01/fienberg-sept2012.* ■

Charles Stein

Charles Stein, known at Stanford University as the "Einstein of the statistics department," passed away November 24, 2016. He was 96 years old.

Stein, professor emeritus of statistics at Stanford, earned his PhD in 1947 from Columbia University and was mentored by Abraham Wald. He was a member of the National Academy of Sciences and Stein's method, Stein's lemma, and Stein's paradox are all named for him.

He was also known for his passionate social activism. He was the first Stanford faculty arrested in apartheid protests, as reported by the *Stanford Daily*. His son, Charles Stein Jr., said his father felt it was his responsibility to stand up for these causes. "He had some basic respect for people's individuality and personal freedom," said Stein Jr. "He didn't compromise on that."

Read more about Stein's life and work at *http://stanford.io/2hfPEu0.* ■

Marc G. Genton was appointed by King Abdullah University of Science and Technology (KAUST) President Jean-Lou Chameau as distinguished professor of statistics November 1, 2016. The distinction was assigned in recognition of his expertise, accomplishments, and international standing.

Genton is not new to international recognitions, being named fellow of scientific associations such as the ASA, Institute of Mathematical Statistics, and American Association for the Advancement of Science and an elected member of the International Statistical Institute. In 2010, he was honored with the El-Shaarawi Award for Excellence from the International Environmetrics Society and the Distinguished Achievement Award from the ASA Section on Statistics and the Environment.

Genton's scientific production includes 200 publications, a book on multivariate skew-elliptical distributions, and more than 320 presentations at conferences and universities worldwide. He is also editor-in-chief of the journal *Stat*.

At KAUST, Genton leads the Spatio-Temporal Statistics and Data Science Research Group. The group's main interests focus on statistical analysis, flexible modeling, prediction, and uncertainty quantification of spatio-temporal data, with applications in environmental and climate science, renewable energies, geophysics, and marine science. ■

Members of the ASA Chicago Chapter gathered for a gala dinner November 3, 2016, to celebrate the latest Statistician of the Year Award winner: **Nan M. Laird** of Harvard University.

The Statistician of the Year (SOY) Award has been bestowed upon leading members of the statistical community since 1966. Recipients are nominated by and voted on by previous winners, ensuring the elevated honor of the award.

Laird delighted the audience with a talk recalling some of her favorite projects in biostatistics over the past four decades. Highlights included discussion of her seminal, oft-cited paper, "Maximum Likelihood from Incomplete Data via the EM Algorithm" (with A. P. Dempster and D. B. Rubin), her research and committee work resulting in a ban on smoking on commercial airplanes, and papers on the impact of coaching on SAT performance. Following the talk, she answered questions such as, "How did you end up working on such impactful projects?" Her modest answer was, "I got lucky."

Laird, now retired, is the Harvey V. Fineberg Research Professor of Biostatistics at Harvard University. She earned a BS in statistics from the University of Georgia and a PhD in statistics from Harvard. Her honors are too numerous to list, but they include being named an ASA Fellow and fellow of the American Advancement of Science and Institute of Mathematical Statistics. Her research interests include the development of statistical methodology in statistical genetics, longitudinal studies, missing or incomplete data, and analysis of multiple informant data. She has more than 300 publications to her credit.

Previous SPY winners include George E.P. Box, W. Edwards Deming, Andrew Gelman, William H. Kruskal, Janet Norwood, John W. Tukey, W. Allen Wallis, and Xiao-Li Meng. ■

Leon Simon of Stanford University will receive the 2017 AMS Leroy P. Steele Prize for Seminal Contribution to Research at the Joint Mathematics Meetings in Atlanta, Georgia.

Simon is honored "for his fundamental contributions to geometric analysis, particularly for his 1983 paper, 'Asymptotics for a Class of Non-Linear Evolution Equations, with Applications to Geometric Problems,' published in the *Annals of Mathematics*."

Simon's prize-winning paper studies singularities that occur in certain types of geometric objects. Simon's approach recasts the original geometric problem as a problem of differential equations, to which sophisticated analysis techniques can be applied. He also shows how his approach can be used to unify and generalize earlier work on related problems.

Born in 1945 in Australia, Simon earned his bachelor's degree (1967) and PhD (1971) at the University of Adelaide. He taught at several universities in Australia and the United States before taking, in 1986, his present position as professor of mathematics at Stanford University.

Simon was elected Fellow of the Australian Academy of Sciences, American Academy of Arts and Sciences, Royal Society, and American Mathematical Society. He also was awarded a Sloan Fellowship, an Australian Mathematical Society Medal, and a Humboldt Award. ■

San Antonio Chapter Promotes Statistics at CORE4 STEM

The ASA San Antonio Chapter in collaboration with the ASA Student Chapter at The University of Texas at San Antonio participated in CORE4 STEM Expo and Family Day November 5, 2016. The event, organized by the City of San Antonio and San Antonio Hispanic Chamber of Commerce, is the largest STEM education event in San Antonio, attended by more than 10,000 students.

The chapters gave multiple presentations in a session titled "Statistics & Data Science: The Career of the 21st Century."

K–12 students and their families participate in the San Antonio Chapter's family day.

"San Antonio has an important gap to fill in the workforce areas of science, technology, engineering, and mathematics (STEM). Statistics is one of these areas, and the San Antonio Chapter has been working hard to help close this gap," said David Han, president of the San Antonio Chapter.

The presentations were attended by K–12 students and their families. While enjoying hands-on activities, they learned about the importance of statistics education as well as quantitative and analytical skills demanded in this data-rich era. They also learned about various career opportunities in the statistics and data science fields. ■

sectionnews

Quality and Productivity

Ming Li, 2017 Section Chair

I am honored to be able to serve the Quality and Productivity Section (Q&P) as its 2017 chair.

Q&P traditionally has been a section for collaboration among statisticians from universities, manufacturing industries, and government agencies. With the recent development of the Internet of Things and Industry 4.0 concepts—in which advanced manufacturing technology, sensor technology, and information technology integrate with equipment and products—the section has contributed many new ideas to leverage Big Data analytics to improve quality and productivity. Meanwhile, traditional statistical methods widely used in Q&P areas such as control charts, design of experiments, and response surface methods have been adopted by many new business sectors such as ecommerce and social media. There is great opportunity for Q&P members to lead and contribute to this fast-growing trend of data-driven and analytics-backed decision making processes across many industries.

sectionnews

Q&P has sponsored the following three conferences and one achievement award each year:

2017 Quality and Productivity Research Conference (QPRC)

QPRC will be held at the University of Connecticut, Storrs, June 13–15, with a short course offered on June 12. The theme of this year's conference is "Quality and Statistics: A Path to Better Life." We invite you to contribute a talk or poster presentation. Please visit the conference site at *http://qprc2017.org* for details.

In conjunction with QPRC, the Mary G. and Joseph Natrella scholarship provides a $3,500 grant and $500 travel stipend to students pursuing full-time graduate work with demonstrated interest in quality and statistics. For more information, visit the student scholarship section on the conference site.

2017 Joint Statistical Meetings (JSM)

JSM 2017 will be held from July 29 to August 3 in Baltimore, Maryland. Q&P will offer up to three travel awards of $400 each for students enrolled in a graduate program with a concentration in applied statistics and/or quality management to attend JSM. Student applicants must show a demonstrated interest in quality applications, as evidenced by coursework, research topics, or prior working experience. Applicants either presenting a paper or participating in a poster session will receive extra consideration. Applications will be accepted through February 1. Complete information about the award and how to apply is posted at *http://bit.ly/1vZQVZd.*

As we get closer to JSM, stay tuned for more information about Q&P-sponsored events, including the SPES/Q&P mixer.

2017 Fall Technical Conference (FTC)

The 61st FTC will be held October 5–6 in Philadelphia, Pennsylvania. The theme of this year's conference is "Statistics: Powering a Revolution in Quality Improvement." The goal of the conference is to engage researchers and practitioners in a dialog that leads to a more effective use of statistics to improve quality and foster innovation. For more information, visit *http://bit.ly/2gCmrrR.*

Gerald J. Hahn Q&P Achievement Award

Q&P sponsors the Gerald J. Hahn Achievement Award, which recognizes an individual who has demonstrated outstanding and sustained achievement and leadership in developing, promoting, and successfully improving the quality and productivity of products and organizational performance using statistical concepts and methods over a period of 20 or more years. Nominations are due February 28. For more information, visit *http://bit.ly/24QS8zt.*

Finally, I'd like to thank all Q&P officers and volunteers whose contributions make the section-sponsored activities and conferences possible. If you would like to volunteer, please reach out to me at *mli@alumni.iastate.edu.*■

Physical and Engineering Sciences

A message from the 2017 chair of the Section on Physical and Engineering Sciences, James Wendelberger, previewing the section's activities for 2017 can be found at *http://bit.ly/2hipB7y.* ■

2017

January

24–26—International Conference on Computational Mathematics & Statistics (ICCMS-2017), Banasthali, Rajasthan, India
For more information, visit *www.iccms2017bu.in* or contact Shalini Chandra, Department of Mathematics and Statistics, Tonk, Bansathali, International 304022, India; *chandrshalini@gmail.com*.

February

»22–24—The World Symposium on Civil Engineering 2017 (WSCE'17), Hong Kong, China
For more information, visit *www.iaeng.org/WSCE/WSCE2017* or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, China; (852) 3169-3427; *wcecs@iaeng.org*.

***23–25—2017 American Statistical Association Conference on Statistical Practice, Jacksonville, Florida**
For more information, visit *www.amstat.org/csp* or contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *meetings@amstat.org*.

March

»15–17—International MultiConference of Engineers and Computer Scientists, Hong Kong, China
For more information, visit *www.iaeng.org/IMECS2017/index.html* or contact IAENG Secretariat, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong, China; (852) 3169-3427; *imecs@iaeng.org*.

24–25—The Conference of Texas Statisticians (COTS) 2017, Dallas, Texas
For details, visit *wcmstage.smu.edu/Dedman/Academics/Departments/Statistics/ConferenceofTexasStatisticians* or contact Sheila Crain, Department of Statistical Science, Southern Methodist University, 3225 Daniel Ave., Dallas, TX 75275-0332; (214) 768-2441; *scrain@smu.edu*.

April

5–6—6th Annual Survival Analysis for Junior Researchers Conference, Leicester, United Kingdom
For more information, visit *tinyurl.com/safjr2017* or contact Sarwar Islam, Department of Health Sciences, College of Medicine, Biological Sciences and Psychology, University of Leicester, Centre for Medicine, University Road, Leicester, International LE1 7RH, England, UK; +441162297255; *safjr2017@le.ac.uk*.

8–9—5th IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence, Ahmedabad, India
For details, visit *www.iimahd.ernet.in/icadabai2017* or contact Arnab Laha, Indian Institute of Management Ahmedabad, Ahmedabad, International 380015, India; 917966324947; *arnab@iima.ac.in*.

***19—The University of Pennsylvania 10th Annual Conference on Statistical Issues in Clinical Trials: Current Issues Regarding Data and Safety Monitoring Committees in Clinical Trials, Philadelphia, Pennsylvania**
For more information, visit *www.med.upenn.edu/cceb/biostat/ClinTrials17_index.shtml* or contact Christy Hullings, 423 Guardian Drive, Suite 615, Philadelphia, PA 19104; (215) 573-2728; *hchristy@mail.med.upenn.edu*.

The following events are the latest additions to the ASA's online calendar of events. Announcements are accepted from education and not-for-profit organizations only. To view the complete list of statistics meetings and workshops, visit *www.amstat.org/dateline*.

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

›› Indicates events posted since the previous issue

20–22—AISTATS 2017, Fort Lauderdale, Florida
For more information, visit *aistats.org* or contact Aaditya Ramdas, 1835 Cedar St., Apt B, Berkeley, CA 94703; (773) 234-3277; *aramdas@berkeley.edu*.

27–29—2017 International Conference on Data Mining, Houston, Texas
For more information, visit *www.siam.org/meetings/sdm17* or contact Srinivasan Parthasarathy, 3600 Market St., Philadelphia, PA 19104; *meetings@siam.org*.

30–5/5—Statistical Challenges in Single-Cell Biology, Ascona, Switzerland
For more information, visit *www.bsse.ethz.ch/cbg/cbg-news/ascona-2017.html* or contact Peter Bühlmann, Rämistrasse 101, Zürich, International 8092, Switzerland; 0041446323438; *SfS-sekretariat@stat.math.ethz.ch*.

May

5–7—The 5th Workshop on Biostatistics and Bioinformatics, Atlanta, Georgia
For details, visit *math.gsu.edu/~yichuan/2017Workshop* or contact Yichuan Zhao, 30 Pryor St., Department of Mathematics and Statistics, Atlanta, GA 30303; (404) 413-6446; *yichuan@gsu.edu*.

15–17—ARS'17 International Workshop, Naples, Italy
For details, visit *www.ars17.unisa.it/index* or contact Maria Rosaria D'Esposito, Via Giovanni Paolo II, Fisciano (SA), International I-84084, Italy; (+39) 089962206; *mdesposi@unisa.it*.

June

9–10—Conference in Celebration of Jeremy Taylor's 60th Birthday, Ann Arbor, Michigan
For more information, visit *sph.umich.edu/biostat/events/jeremy-taylor-event.html* or contact Menggang Yu, 600 Highland Ave., Madison, WI 53792; (608) 261-1988; *meyu@biostat.wisc.edu*.

13–15—2017 Quality and Productivity Research Conference, Storrs, Connecticut
For details, visit *qprc2017.org* or contact Nalini Ravishanker, AUST 333, 215 Glenbrook Road, Storrs, CT 06269; (860) 486-4760; *nalini.ravishanker@uconn.edu*.

2017 ASA Calendar and student resources poster
Download a PDF version at ***magazine.amstat.org/blog/2016/12/14/calendar*** or email Megan Murphy (*megan@amstat.org*) to receive a hard copy.

20–23—The 10th International Conference on Multiple Comparison Procedures, Riverside, California
For details, visit *www.mcp-conference.org* or contact Xinping Cui, 1337 Olmsted Hall, University of California at Riverside, Riverside, CA 92521; (951) 827-2563; *xinping.cui@ucr.edu*.

July

***3–7—ICORS 2017, Wollongong, Australia**
For more information, visit *niasra.uow.edu.au/icors2017/index.html* or contact Anica Damcevski, NIASRA, University of Wollongong, Wollongong, International 2522, Australia; 0061-2-4221-5435; *icors2017@uow.edu.au*.

3–7—IWSM 2017, Groningen, The Netherlands
For more information, visit *iwsm2017.webhosting.rug.nl* or contact Marco Gzegorczyk, Nijenborgh 9, Groningen, International 9747 AG, Netherlands; +31503633985; *m.a.grzegorczyk@rug.nl*.

9–13—38th Annual Conference of the International Society for Clinical Biostatistics, Vigo, Spain
For details, visit *jacobo.webs.uvigo.es/Flyer_ISCB38.pdf* or contact Jacobo de Uña Álvarez, University of Vigo, Department of Statistics and OR, Vigo, International 36310, Spain; 986812492; *jacobo@uvigo.es*.

Center for Clinical Epidemiology & Biostatistics (CCEB)

Perelman School of Medicine University of Pennsylvania

10th Annual Clinical Trials Conference

SAVE THE DATE!

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

TOPIC

Current Issues Regarding Data and Safety Monitoring Committees in Clinical Trials

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

Registration to open January 4, 2016

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

Faculty & Provisional Talks:

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

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

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

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

Panelists:

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

***29–8/3—2017 Joint Statistical Meetings, Baltimore, Maryland**
For more information, visit *www.amstat.org/jsm* contact ASA Meetings, 732 N. Washington St., Alexandria, VA 22314; (703) 684-1221; *meetings@amstat.org*.

August

12–14—Second Workshop on Higher-Order Asymptotics and Post-Selection Inference (WHOA-PSI)^{2}, St. Louis, Missouri
For more information, visit *www.math.wustl.edu/~kuffner/WHOA-PSI-2.html* or contact Todd Kuffner, 1 Brookings Dr., Campus Box 1146, St. Louis, MO 63130; *kuffner@wustl.edu*.

28–9/1—CEN-ISBS Vienna 2017 Joint Conference on Biometrics & Biopharmaceutical Statistics, Vienna, Austria
For details, visit *www.cenisbs2017.org* or contact Alexandra Seppi, Mariannengasse 32, Vienna, International 1090, Austria; *cenisbs2017@aimgroup.eu*.

September

***25–27—2017 ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Washington, DC**
For more information, visit *ww2.amstat.org/meetings/biopharmworkshop/2017* or contact ASA Meetings, 732 North Washington St., Alexandria, VA 22314; (703) 684-1221, *meetings@amstat.org*. ■

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

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

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

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

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

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

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

Alabama

■ The Department of Biostatistics, School of Public Health at the University of Alabama at Birmingham (UAB) invites applications for multiple tenure-track/tenured faculty members focused at the Associate or Full Professor rank (commensurate with qualifications). The positions are 12-month, full time positions. Faculty are expected to develop an independent line of research and collaborate and publish with other established investigators. View the complete description: *http://uab.peopleadmin.com/postings/2121* EOE.

California

■ Applications are invited for two 9-month, tenure-track or tenure positions at the Assistant or Associate levels as a part of the cluster hiring initiative in Mathematical Modeling of Complex Biosystems at the University of California, Riverside (UCR). Application materials for the Assistant Professor position should be submitted through *https://aprecruit.ucr.edu/apply/JPF00675*. Associate level applicants should apply through *https://aprecruit.ucr.edu/apply/JPF00676*. See links for full details. EEO/AA/ADA/Vets Employer.

■ UCR is implementing a major expansion of our faculty (*clusterhiring.ucr.edu*) and investing in state-of-the-art research facilities to support their work. We invite applications for faculty cluster hires at an open rank in design-based statistical inference for social science and policy evaluation. Review of the applications will continue until the position is filled. To apply: *https://aprecruit.ucr.edu/apply/JPF00636* (Senior), *https://aprecruit.ucr.edu/apply/JPF00637* (Junior) EO/AA/ADA/Vets Employer.

Idaho

■ Idaho State University, Department of Mathematics and Statistics, Pocatella, Idaho is seeking an Assistant Professor of Statistics. For a detailed job description and further information about the University and the department, please visit us at *www.isu.edu* or *www.isu.edu/math*; phone (208) 282-3350. E-mail: *stathire@isu.edu*. Idaho State University is an AA/EEO Employer. Applications from all qualified applicants are welcome.

Illinois

■ American Thrombosis and Hemostasis Network (*www.athn.org*) seeks a master's level Senior Biostatistician / Health Services Research who will perform analysis and reporting for SQL database and work independently with PIs in clinic trials. Need at least 5 years of related working experiences. Use SAS or R. Interested candidate who intends to work home should submit your resume and statement of qualification to *jobs@athn.org*. ATHN encourages women and minorities to apply. Need legal work authorization in U.S.

STATISTICAL & APPLIED MATHEMATICAL SCIENCES INSITUTE (SAMSI) SEEKS NEW DIRECTOR

SAMSI is seeking its next Director, to begin the position no later than July 1, 2018. Candidates with vision, energy and experience are encouraged to apply. The appointment will be coincident with appointment as a tenured faculty member at one of the SAMSI partner universities: Duke University, North Carolina State University, or the University of North Carolina at Chapel Hill.

The Director has primary responsibility for the scientific leadership of SAMSI and for the administrative and financial functions required to realize the scientific vision. The Director will be a scholar with an international reputation of research in statistics, applied mathematics or a closely related field. SAMSI has a strong record of interdisciplinary research covering a wide variety of biological, physical and social sciences, and is seeking to expand actively in the fields of computing and data science. In addition, the Director is expected to have experience in university or departmental administration, and a willingness to provide leadership in other areas of importance to SAMSI including fundraising, education and outreach, and diversity.

SAMSI is a mathematical sciences institute whose primary source of funding is the National Science Foundation. Day to day management is in the hands of a Directorate consisting of the Director, the Deputy Director, two Associate Directors and an Operations Director. Financial and personnel management of the institute are overseen by a Governing Board chaired by Professor Robert Calderbank (Duke), including representatives of all three partner universities as well as the American Statistical Association and the Society for Industrial and Applied Mathematics. The selection of research programs is overseen by a National Advisory Committee consisting of leading national researchers in statistics, applied mathematics and disciplinary sciences. The Director has ultimate responsibility for all the financial and personnel decisions of the institute, for liaison with the partner universities and the National Science Foundation, for working with the Operations Director on management of the staff and the facilities, and for long-term planning including fundraising. The Director also works closely with the Deputy and Associate Directors to provide ongoing oversight of SAMSI research programs and of the institute's education, outreach and diversity activities.

SAMSI is located in Research Triangle Park in North Carolina. The region is rich in terms of statistical and applied mathematical expertise, and in interdisciplinary scientists which are essential to many SAMSI programs.

Candidates are asked to send a CV and cover letter to **directorsearch@samsi.info**. **Review of applications will begin February 2, 2017 and will continue until position is filled**.

Search Committee: James Berger (chair, Duke University), Mihai Anitescu (Argonne National Laboratory), Robert Calderbank (Duke University), Marie Davidian (North Carolina State University), M. Gregory Forest (University of North Carolina, Chapel Hill), Susan A. Murphy (University of Michigan), Javier Rojo (University of Nevada, Reno), Richard Smith (University of North Carolina, Chapel Hill), Michael Stein (University of Chicago), Margaret H. Wright (Courant Institute of Mathematical Sciences), Linda J. Young (National Agricultural Statistics Service).

SAMSI is an equal opportunity/affirmative action employer

Maine

■ The College of Science and Humanities at Husson University invites applications for a full-time, ranked faculty position in Applied Statistics to begin in fall 2017. Teaching responsibilities include 12 credit hours per semester of statistics courses at the general education level, as well as upper level courses. Apply here: *http://www.Click2Apply.net/3hzbj327fx* EOE.

Massachusetts

■ Due to strategic transformation, Takeda, a leading research-based global pharmaceutical company, seeks talented candidates for 17 openings, from Sr. Statistician to Director, in Oncology, CNS, GI, and Vaccines areas at R&D Headquarters in Boston, MA. Applicants should have a PhD or MS in Statistics/Biostatistics with good communication, interpersonal, and influencing skills. Statisticians at Takeda impact critical drug development decisions, and collaborate w/researchers from prestigious universities. *www.takedajobs.com.* Takeda is an EEO employer of minorities, women, disabled, protected veterans. For more information, visit *www.takeda.us/careers/EEO_Policy_Statement.aspx*.

■ Do you want to make a difference in an organization? Do you love data and pursuing the meaning it can offer? Then the Data Analyst position at MGH Institute of Health Professions just might be the perfect fit. The position involves building databases, and then posing questions to the data looking for patterns, trends, and meaning that can be actionable. For more information, visit: *https://partners.taleo.net/careersection/jobdetail.ftl?job=3025584&lang=en partners.taleo.net/careersection/jobdetail.ftl?job=3025584&lang=en* EOE.

Michigan

■ Two open-rank tenure-track/tenured positions at Michigan State University in Statistics and Probability Department, one jointly with Computational Mathematics, Science and Engineering Department, starting Fall 2017. Posting numbers: #4320, #4292. Full advertisement at *www.stt.msu.edu/jobs*. MSU is AA/EO employer, committed to excellence through diversity, encourages applications of women, persons of color, veterans, persons with disabilities; endeavors to facilitate employment assistance to candidates' spouses or partners.

Missouri

■ Missouri University of Science and Technology is seeking statisticians who excel in interdisciplinary research to advance our campus signature area of Smart Living, which seeks to improve the human living condition by enhancing the integrated system of people, technology, and the environment through collaborative research. Appointments are available at associate professor and assistant professor levels. Job details and application procedure are given at *http://hr.mst.edu/careers/signature/smartliving*. Missouri University of Science and Technology is an AA/EEO institution. Females, minorities, and persons with disabilities are encouraged to apply. Missouri S&T participates in E-Verify. For more information on E-Verify, please contact DHS at 1-888-464-4218.

■ Assistant Professor, Statistics Department, University of Missouri, tenure track assistant position; all areas of statistics are encouraged to apply. PhD in statistics required by August 15, 2017. Apply online at *http://hrs.missouri.edu/find-a-job/academic*. Upload cover letter, CV, research & teaching statements. Deadline: December 31, 2016. Have three letters of recommendation sent to *muasstatsrchtt@missouri.edu*. The University of Missouri is an Equal Opportunity/Affirmative Action/ADA Employer.

Pranab K. Sen Distinguished Visiting Professorship

UNC GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH

The Department of Biostatistics at the University of North Carolina at Chapel Hill (UNC-CH) is seeking to recruit an aspiring international scholar in statistical science for the Pranab K. Sen Distinguished Visiting Professorship in Biostatistics. The position is for the fall semester beginning August 2017 for a period up to five months. Preference will be given to applicants from developing countries as defined by the Departments of Biostatistics and Statistics and Operations Research and in consort with the dean of the Gillings School of Global Public Health. Preference will also be given to applicants who provide a plan of proposed research and UNC-CH faculty sponsor name. The visiting faculty, who will come from an area of statistical science, broadly defined, including bioinformatics, will come to UNC-CH to conduct research, possibly teach, and interact with faculty, students, and the university community. The major benefit will be an intensive interaction of the visitor's strong methodology background with applications to interdisciplinary research underway at UNC-CH. The visiting professorship, at the assistant, associate or full professor level, offers salary support commensurate with the rank.

Financial support for other expenses such as travel is negotiable. Ideally, the visiting scholar will return to his or her home country for at least one year upon completing the appointment to further expand the reach of interdisciplinary work begun in Chapel Hill. Applicants should hold a PhD in statistics or biostatistics or have commensurate educational background.

To apply, upload your CV, cover letter, and research statement in the application at http://unc.peopleadmin.com/postings/109444. Candidates must also arrange for three letters of recommendation to arrive via email to Vera Bennett (bennett@bios.unc.edu). The deadline for applications is March 1, 2017.

Nevada

■ The Department of Mathematical Sciences at the University of Nevada, Las Vegas invites applications for a full-time, 9-month, tenure-track Assistant Professor position in Statistics (17095), commencing Fall 2017. Applicants must have a PhD in statistics or related areas from an accredited college or university. Preference will be given to candidates who demonstrate commitment to excellence in both teaching and scholarly activity. Complete description at *https://hrsearch.unlv.edu*. EOE.

New Jersey

■ Assistant Professor of Statistics or Data Science. Drew University is seeking two tenure-track assistant professors of mathematics & computer science. The two Norma Gilbert Junior Professors in Mathematics will begin August, 2017. Visit *Drew.edu/hr/employment-opportunities* for full details and how to apply. Drew is an AAEEO employer. Successful candidate must be authorized to work in the United States and is subject to a background check.

New York

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

North Carolina

■ The Department of Biostatistical Sciences (DBS), Wake Forest School of Medicine, Winston-Salem, NC, invites applications for tenure-track assistant or associate professor positions. A vibrant unit with 24 faculty, DBS has an extramural funding record including geriatrics, cardiovascular disease, diabetes, women's health, population genetics, and cancer control. PhD in biostatistics, statistics, informatics, or related field with experience collaborating with medical or public health professionals preferred. *www.phs.wakehealth.edu/public/jobs.cfm*. EOE.

Pennsylvania

■ Teaching Professor, rank (Assistant or Associate) to be determined. Department of Statistics, Carnegie Mellon University, Pittsburgh, PA. Seeking a passionate and effective teacher to contribute to our thriving, modern undergraduate and graduate programs. This position emphasizes teaching, student advising, curriculum development, and supervising collaborative research projects. PhD in statistics, biostatistics, machine learning or related area required. Apply at *apply.interfolio.com/37457*. Women and minorities encouraged to apply.

■ 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 2017. Applicants should show outstanding capacity in research and teaching. Applicants must have a PhD (expected completion by June 30, 2018 is acceptable) from an accredited institution. Please visit our website to apply: *https://statistics.wharton.upenn.edu/recruiting/facultypositions*. Questions can be sent to *statistics.recruit@wharton.upenn.edu.*

Department of Health and Human Services
National Institutes of Health
***Eunice Kennedy Shriver* National Institute of Child Health and Human Development**
Division of Intramural Population Health Research

Chief and Senior Investigator, Biostatistics and Bioinformatics Branch

The Division of Intramural Population Health Research is located within the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development and invites qualified candidates to apply for the position of Chief and Senior Investigator of the Biostatistics and Bioinformatics Branch. As one of three intramural branches in the Division, the Biostatistics and Bioinformatics Branch mission is to develop novel statistical methods motivated by the Division's population health research that includes human fecundity and fertility, pregnancy, and child and adolescent health and behavior. In addition, Branch scientists serve as statistical co-investigators on all etiologic and interventional research in keeping with the team science research paradigm practiced by the Division. The Branch's mission also includes a strong commitment to mentoring trainees at varying career stages and professional service.

As an intramural entity, the Branch is expected to develop innovative methodologic and collaborative research that uses the rich trans-disciplinary environment of the Division and the NIH Intramural Research Program. This expectation includes developing and implementing methods that support original research seeking to answer critical data gaps, and in the analysis of a vast array of databases from completed and ongoing research studies. The Biostatistics and Bioinformatics branch currently houses 4 investigators, with room for growth. A description of the Branch may be found at https://www.nichd.nih.gov/about/org/diphr/bbb/Pages/default.aspx, and an overview of all Division research is summarized in the Division's annual report https://www.nichd.nih.gov/about/org/diphr/Documents/DIPHR_2015_Annual_Report.pdf.

The Branch Chief must be a dynamic leader who provides scientific, administrative and fiscal leadership, while maintaining his/her own original methodologic and collaborative research. Candidates must have an earned doctoral degree in biostatistics, statistics or a closely related quantitative field. The successful candidate must be an internationally recognized methodologist whose accomplishments are commensurate with the academic rank of a tenured full professor, as demonstrated by a strong upward trajectory of high quality statistical publications, a trajectory of high quality and impact collaborative publications, an international reputation, extramural funding (for academic candidates), and a clear vision of biostatistics' and bioinformatics' essential role in population health research. The Chief is expected to lead in strengthening current research areas and in developing new areas of expertise to address increasingly challenging designs and analyses, including priorities such as bioinformatics and causal inference. The Chief is expected to lead in developing and implementing the infrastructure and culture of reproducible research. The position requires excellent inter-personnel and communication skills, and experience leading trans-disciplinary scientific teams and recruiting early stage biostatisticians are highly desirable. The Chief will serve as a member of the Division's senior leadership working to further the Division and Institute's vision and mission.

The Branch Chief will be eligible for tenure, at a salary commensurate with his/her credentials and experience. Full federal government benefits will be provided, including leave, health and life insurance, long-term care insurance, retirement plan, and savings plan (401k equivalent).

Interested candidates should submit the following items:

- Curriculum vitae;
- Brief (2-3 pages) cover letter that summarizes professional training and experience in the following areas: leadership, management, administration, research, professional service, and mentoring;
- Brief (2-3 pages) vision statement for the Branch; and
- Names, affiliations, and contact details for three references (who will only be contacted following an interview).

Please email these materials as one package to:

Ms. Adrienne Lonaberger
Program Analyst, DIPHR, NICHD
6710B Rockledge Drive; Room 3241D
Bethesda, MD 20892
301-496-6324
greenad@mail.nih.gov

All inquiries about the position should be directed to the Committee Chair:

Dr. Enrique Schisterman
Chief and Senior Investigator, Epidemiology Branch, DIPHR, NICHD
6710B Rockledge Drive; Room 3136
Bethesda, MD 20892
301-435-6893
schistee@mail.nih.gov

Complete applications received by January 13, 2017 will be considered for a first round of interviews, but applications will be accepted until the position is filled. The selected candidate is expected to assume the position and be onsite by July 1, 2017.

HHS, NIH, and NICHD are Equal Opportunity Employers.

NIH *Eunice Kennedy Shriver* National Institute of Child Health and Human Development

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

Rhode Island

■ Assistant Professor in Statistics. The department of computer science and statistics in the College of Arts and Sciences (A&S) at The University of Rhode Island invites applications for a tenure-track assistant professor in statistics, appointment to begin in the academic year 2017-2018. Visit the URI jobs website at *https://jobs.uri.edu* to apply and view complete details (F00009). The University of Rhode Island is an AA/EEOD employer.

Texas

■ The University of Texas at Dallas is seeking applications for a clinical faculty position of any rank in actuarial science beginning August 1, 2017. Candidates should possess an MS or PhD in actuarial science, statistics, mathematics, or a closely related field and actuarial credentials (Associate's or Fellow) in an actuarial professional organization. For more information and to apply please visit: *http://jobs.utdallas.edu/postings/6842*. EOE/AA.

Virginia

■ Department of Mathematics and Statistics at James Madison University invites applications for a renewable position in statistics. Duties: classroom instruction and directing statistics in the Science/Mathematics Learning Center. Apply: *www.mathjobs.org/jobs/jobs/9722*. James Madison University is a comprehensive, coeducational, state university, located in the Shenandoah Valley of Virginia. See *www.jmu.edu/mathstat.* Review of applications begins January 2 2017. Apply by that date to guarantee full consideration. EOE.

Canada

■ The Department of Statistics and Actuarial Science, University of Waterloo invites applications for 3 definite-term lecturer positions. A graduate degree in areas of actuarial or statistical sciences is required. Apply through *www.mathjobs.org/jobs*. Include cover letter, CV, teaching statement, and teaching evaluation summaries and three reference letters. Full advertisement *https://uwaterloo.ca/statistics-and-actuarial-science/available-positions.* Closing: March 1, 2017. Available positions: Actuarial, statistical sciences, lecturer, teaching.

International

■ Wang Yanan Institute for Studies in Economics & School of Economics, Xiamen University, China. Full-time, tenure-track/tenured professorship positions in statistics beginning September 2017. Preferred areas of specializations are theoretical and applied statistics. PhD in statistics or probability theory must be completed by August, 2017. Send applications, including cover letter, CV, samples of research work, and three reference letters, to *recruit.wise.xmu@gmail.com* before June 30. EOE. ■

SAMSI SEEKING NEW DEPUTY DIRECTOR

The Statistical and Applied Mathematical Sciences Institute (SAMSI) invites applications for the position of Deputy Director for a term of two years **beginning July 1, 2017**.

The Deputy Director will be a distinguished researcher who will provide scientific direction to the institute and oversight of the SAMSI grant, and who will work closely with the Director on all aspects of the institute's oversight and program activities. The Deputy Director will also be strongly encouraged to pursue his/her personal research in conjunction with the SAMSI programs or independently.

Together with the Director, the Deputy Director forms the executive side of the SAMSI Directorate whom are responsible for the administration of programs, human resources, financial operation and infrastructure. Together with the other members of the Directorate, they also share the responsibilities of the selection, development and implementation of SAMSI programs.

The appointment will be made as a member of the research faculty at North Carolina State University.

Candidate must have a minimum of a Ph.D. in Mathematics or Statistics or equivalent.

Qualified candidates should be mathematicians or statisticians with excellent management skills and research record. Proven administrative and operational experience is an asset. In addition, the successful candidate will demonstrate a strong interest in further developing and expanding the mission of the institute.

Additional information and a link to **N.C. State University's Job site** for submitting applications may be found at: **https://jobs.ncsu.edu/postings/76044**.

Candidates are asked to attach a current curriculum vitae, letter of application, and contact information for three professional references. Informal inquiries may be addressed to Richard Smith, Director of SAMSI, **rls@samsi.info**. **Review of applications will begin February 2, 2017 and will continue until position is filled.**

Individuals with disabilities requiring disability-related accommodations in the application and interview process, please call **919-515-3148**. Final candidates are subject to criminal & sex offender background checks. Some vacancies also require credit or motor vehicle checks. If highest degree is from an institution outside of the U.S., final candidates are required to have their degree verified at **www.wes.org**. Degree must be obtained prior to start date.

NC State University participates in E-Verify. Federal law requires all employers to verify the identity and employment eligibility of all persons hired to work in the United States.

AMSTATNEWS

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NEXT MONTH

TELL US: What statistics book is a must read? Be sure to tag **@AmstatNews** with your answer!

What drives you up a wall? Tell us your statistics pet peeve!

Ryan Rosario Thinking that adding more data will make a distribution normal (total misunderstanding CLT)

Lindsay Renfro Assuming that continuous variables contribute linearly in regression models without actually checking that assumption.

Juan Camilo Echeverri High *p*-values

Aaron Kenna Using confidence intervals as if they provide one with the probability that one's estimate is true, formulating an alternative hypothesis *after* collecting and looking at data, and lazy null hypotheses of no effect or chance variation.

Chad Pickering When your math stats textbook gives you a scenario where you are given the population variance but you don't know the population mean

> **Kelly Chin** That's me right now lol.
>
> **German M Altgelt** and they don't tell you if it follows any kind of a 1 parameter distribution?

Robbie Emmet Buzzwords.

Rose Saint Fleur-Calixte People who just want a *p*-value.

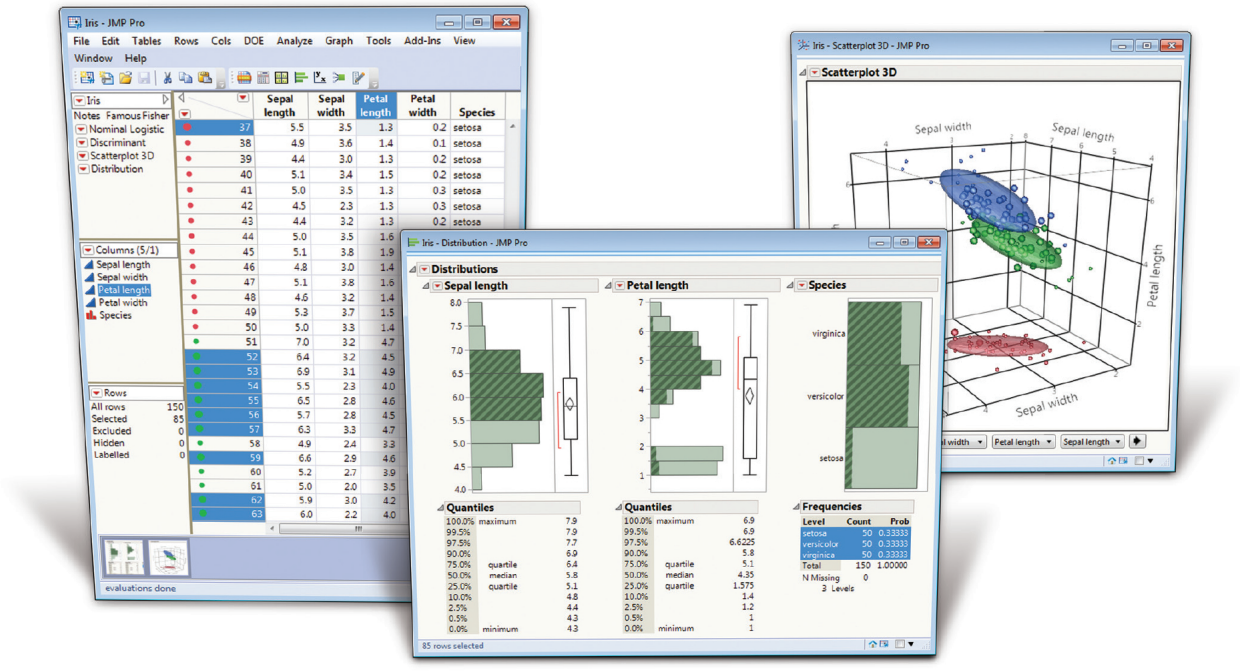
Jason Stewart Simpson's paradox

Steve Phelps The law of averages

German M Altgelt 1) election time polls, 2) people that can't get correlation does not mean causation … 3) unnecessary medical tests like PSA and mammograms.

Becky McNeil @BiostatBecky @AmstatNews Some software outputs "p=0.0000" for a test and authors copy it straight into their manuscripts.

Stephanie E Pocchia @spocchia When readers misunderstand correlation as causal due to poor communication of methodology, study limitations, or lack of reader knowledge.



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