From the Chair

It's good to be back! I recently received word that I would be re-appointed as chair, though all new and renewing chair appointments in the college are for a single year, with the possibility of a full three-year appointment pending how well we perform under a new budget model. I really appreciate the support I received from the Department for a third term and will be working hard to maintain their trust.

The college continues to work its way out from its debt. Though the hiring environment was better this year, we were sorely disappointed that we were not permitted to hire tenure-track faculty for the second consecutive year. On the other hand, spending did ease, and we were able to provide more travel support than we anticipated, and even pulled together a renovation project or two.

The college recognized that departments would need more

Palmetto Lecturer Joseph Ibrahim speaks during the South Carolina American Statistical Association Meeting.

instructional help with a record-breaking first-year class in fall 2017, so we hired a temporary instructor, Dr Chendi Jiang, the wife of Dr Dewei Wang, to help teach some of our introductory courses this past academic year.

We suffered a significant loss with the departure of Prof. Tim Hanson in December 2017 to private industry (see article on page 3). The department is short of senior faculty for now, but that should be remedied in the next couple years as senior associate professors seek promotion.

We promoted Dr Maureen Petkewich to a new position for the department, Clinical Assistant Professor, which provides additional opportunities for promotion of instructional faculty with the proper qualifications. It's a relatively new model for the College of Arts and Sciences, too, and an acknowledgement of Maureen's contributions to the department, the university, and the profession. Unfortunately for us, Maureen accepted a really attractive offer from the Department of Management Sciences in the Darla Moore School of Business, the same department that hired Dr Leslie Hendrix last year,

and will be leaving in August 2018.

For those of you keeping score at home, we have twelve tenured/tenure-track faculty, which leaves us short of the research faculty we need to advise graduate students and teach upper-level classes. With the University's new Excellence Initiative, we should have the opportunity to hire additional faculty outside our usual hiring plan, so we are optimistic about rebuilding.

We received permission to replace Maureen and Chendi, and hire another instructor to assist with continued growth in enrollments, so we will have seven full-time instructors in the fall, and one temporary full-time instructor. Meet our new instructors in the next few pages.

A couple department members were recognized this past year, as Prof. Tim Hanson was successfully nominated by Edsel Peña for Fellow of the International Statistical Institute. Graduate student Zichen Ma successfully applied for a Support to Promote Advancement of Research and Creativity (SPARC) Graduate Research Grant through the Office of the Vice President for Research. The SPARC Graduate Research Grant is a merit-based award designed to ignite research and creative excellence across all disciplines at USC.

Our programs are either stable or growing. We continue to support 35 to 40 masters and doctoral students, while our undergraduate program now supports 75 to 80 students. The

distributed learning program has seen renewed interest in the certificate program since we reduced the number of hours required to earn a certificate. Read our program directors' reports for more highlights.

The biggest event on the horizon is our external review, which will take place in the early fall of 2018. A pair of prominent statisticians will visit campus for a couple days, report on our current status, and make recommendations for our program. Our last external review in 2009 led directly to the hiring of Ian Dryden, and the right-sizing of our department, so good things can come from these reviews.

Transitions

Maureen Petkewich

It was heart-breaking to lose Dr Maureen Petkewich this year, though she will remain close by in the Department of Management Sciences in the Darla Moore School of Business; Maureen accepted a position there to develop a data visualization course for their program.

Maureen earned her master's degree here in 2003, then returned as an instructor in 2005. Maureen became known for her work as the STAT 201 (Elementary Statistics) coordinator, including writing a new course text with **Don Edwards** (*Statistics Play-By-Play: Laboratory Experiments for Elementary Statistics, 2013*). Her adept management of the STAT 201 lab fee budget has helped fund numerous improvements around the department over the years, too.

As STAT 201 coordinator, she managed and mentored over 20 graduate students a semester. Supervision became even more complex when she developed and taught a distributed-learning version of STAT 201/STAT J201, and it was quite a relief when we were able to hire more instructors to split that supervisory load. In addition to her work on STAT 201, she developed STAT 112: Statistics in the Media, and then a distributed-learning version of STAT 112 (STAT J112) on her own; STAT J112 has become an important part of the College of Nursing core curriculum.

The College of Arts and Sciences recognized Maureen for her teaching excellence in 2017 with the Undergraduate Teaching Award for Non-tenure Track Faculty.

Maureen had to step into some big shoes when she took over the Assistant to the Chair (now Assistant Chair) appointment from Georgie Baker. In that capacity, she took over course scheduling, which included frequent horse-trading with the Dean's Office, the Honors College, the Office of On Your Time Initiatives, and the Office of the Registrar. Maureen also served as a buffer for most student issues that arose. All the time, she worked assiduously toward her PhD in Educational Measurement, which she earned in 2016.

Maureen actively sought out opportunities for professional growth by attending and presenting at professional conferences. Furthermore, Dr Petkewich was approached on multiple occasions by the College of Arts and Sciences and the Office of the Provost to serve and to provide leadership on a variety of important issues, including large-course coordination, review of pedagogical grants, and non-tenure track policy. Dr Petkewich's accomplishments and trajectory in the area of statistical pedagogy were a great fit for her appointment as Clinical Assistant Professor in 2017.

It's been a great experience to see one of our graduates return to the department and contribute and grow in so many different ways. We wish Maureen the best at the Darla Moore School of Business.

Tim Hanson

When Tim first revealed that he was considering an offer from corporate America, it seemed implausible—how could someone who always looks like he had just settled in for a long weekend of couch-surfing possibly fit in at Medtronix?

Of course, if you know Tim well, he is just as adept at statistical consulting and collaboration as he was publishing articles in top-tier journals, and the picture starts to make more sense. And, dress code aside, Tim and Aubrey's strong personal and family ties to Minnesota sealed the deal.

Tim had an immediate impact after coming to USC in 2010. He was well-known for his seminal work on mixtures of Polya trees as flexible priors in semi- and nonparametric Bayesian analysis. While at USC, he extended his work to include many other applications and a variety of nonparametric prior distributions. With his collaborators, he developed his work into the R library, DPpackage. In addition to widely-used nonparametric and semiparametric applications, such as generalized linear models, generalized linear mixed effects models, survival analysis, and generalized additive models, Prof. Hanson and his collaborators included novel applications such as marginal and conditional density estimation, ROC curve analysis, and item response theory models.

In addition to their work on nonparametric Bayes software, Prof. Hanson and his collaborators published a nonparametric Bayes text in 2015. In fact, Tim used the visit of our 2014 Palmetto Lecturer, Prof. Peter Müller, to finalize the draft of their text with collaborators Fernando Quintana and Alejandro Jara, "Bayesian Nonparametric Data Analysis".
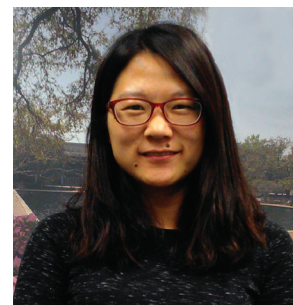
Tim has over 95 articles or chapters in print or in press and two books published. His publications include a balanced mix of statistical methodological papers and collaborative work; fifteen of the methodological papers have appeared in the top five journals in our field.

Tim had some of his greatest successes mentoring graduate students, with his students often having multiple projects under their belt as they entered the job market. Alumnus **Haiming Zhou** arrived from Clemson, blossomed under Tim's direction and holds a tenure-track position at Northern Illinois University. **Junshu Bao** is a tenure-track faculty member at Duquesne University; **William Cipolli** holds a tenure-track position at Colgate University. **Lili** was awarded a prestigious College of Arts and Sciences Dean's Doctoral Dissertation Fellowship her final year, and is now a tenure-track faculty member at University of New Mexico. **Yuhui Chen**, while working in private industry, had three papers in print with Tim. Her success in research convinced her to seek a position in academia, and she is now an Assistant Professor in the Department of Mathematics at the University of Alabama!

Prof. Hanson was a successful first-time nominee as a Fellow of the American Statistical Association in 2013 and was successfully nominated by Edsel Peña as a Fellow of the International Statistical Institute just prior to his departure. Of course everyone moves on, and we are always grateful for the outstanding researchers who spend a good pat of their career with us and leave a substantive legacy behind.

Chendi Jiang

Dr Jiang joined us as a full-time temporary hire for the academic year 2017-2018. She is the wife of Prof. **Dewei Wang**, and earned both her MS and PhD at Clemson University. Chendi taught STAT 112: Statistics and the Media, STAT 205: Elementary Statistics for the Biological and Life Sciences, STAT 206: Elementary Statistics for Business, and an honors section of STAT 205 for us. At the end of her tenure, Dr Jiang had the option of renewing her appointment, but will instead teach as an adjunct while Dewei prepares his tenure and promotion file. We are sorry to see her stepping down from her full-time position, but thankful that she will be available to help us out in the upcoming academic year.

New Faculty and Staff

Bryonna Bowen, Instructor, is beginning her first full year of teaching at USC as an Instructor, lecturing in STAT 201: Elementary Statistics. She just finished her MS from the department and is looking forward to teaching at USC.

Tracey Gunter received her PhD in Measurement and Statistics from Florida State University, under the supervision of Dr Betsy J. Becker. She also obtained her BS and MS in Mathematics and a graduate certificate in Statistics from the College of Charleston. She is a proud native of Marion, South Carolina and is excited about her first year of teaching at USC.

Nick Yell taught STAT 205: Elementary Statistics for the Biological and Life Sciences for the past 5 years as well as working full time as a statistician. During those years he discovered a love for teaching and working with students and decided to pursue teaching full time. Nick has been a part of USC's Statistics Department for the past 10 years as a student and/or instructor and is proud to continue serving.

Faculty and Staff News

Paramita Chakraborty, Associate Professor, is working with Drs. **John Grego** and **James Lynch** on large scale multiple testing problems. They have submitted two manuscripts this year and are working on a third. Her student, **Chong Ma**, who graduated in June 2018, and went on to a postdoctoral position at Yale University's Biostatistics Department, continues to be a part of this project.

Paramita is also continuing her collaboration with **Dr Hong Wang**, Professor in USC's Department of Mathematics, on stochastic diffusion; their latest paper recently got accepted for publication in the journal *Modern Stochastics*.

Paramita's ongoing collaboration with **Dr Anindya Chanda** from USC's Department of Environmental Health Sciences on integrated omics data analysis resulted in two successful grants this year — one is sponsored by the South Carolina Spinal Cord Injury Research Fund and the other by the United States Department of Agriculture (USDA).

Kathryn Dobereiner has now been with the Department of Statistics for a little over three years and has now been with the University for 11 years. The time has flown!

Kathryn completed GRANT (Gamecock Research Administrators Network Training) certification last winter. This should help with faculty that need assistance with their grant budget proposals and maintenance of their grant funds.

Kathryn's oldest son, Dustin, is now 22 years old and her youngest son, Thomas, is 17 and this fall he will be starting his senior year of high school.

Don Edwards, and wife Sharon, have successfully made much of the transition to semi-retired life. "Semi-retired" is the appropriate label as we both continue to work on a part-time basis. Sharon is still teaching online and has an interview to teach live classes in Savannah this fall. Don still works afternoons as a consultant fighting Medicare fraud and billing abuse, mostly with Columbia-based federal contractor Palmetto GBA. He also continues work on models for subjective-judgment diagnoses with Assistant Professor **Xiaoyan (Iris) Lin**, and **Kerrie Nelson**, a former professor in the department (now Research Associate Professor at Boston University). A flagship paper was published last year and Dr Nelson's R01 grant from the National Cancer Institute has been renewed for four more years, with Don and Dr Lin named on the USC subcontract. Don was proud to speak about this work at the Eastern North American Region Meeting of the International Biometric Society (ENAR) this past spring in a session featuring four talks by USC and Clemson University researchers.

After a rocky summer, renovations to our new home and yard in Tybee Island, Georgia are estimated to be 83.6% complete! A word of advice: renovate the house before you move in. Don has had his own personal renovations this past spring in the form of two new artificial hips — the old ones were not dealing well with the stairs at the house. The new ones are healing nicely. Come visit us if you're in the Savannah area — we have a guest room, and we're an easy walk to the beach. I'm still reading my edwards@stat.sc.edu email daily.

John Grego, Professor and Department Chair, has put his heart surgery in the rearview mirror and enjoys his bike rides into work a lot more than he did a couple years ago.

John continued his weekly research meetings with Assistant Professor **Paramita Chakraborty,** Distinguished Professor Emeritus **Jim Lynch**, and PhD student **Chong Ma**. This was a productive year with the group producing a couple research proposals, preparing three manuscripts and launching an R package.

He collaborated with different teams on campus to prepare three Excellence Initiative proposals; the Excellence Initiative is an effort by USC to promote transformational research. All three made it past Phase I and will be evaluated over the summer; if successful, there is a good opportunity to reshape the Statistics Lab, make a couple additional hires, and invite high-profile speakers to campus.

He taught a large section of STAT 540: Computing in Statistics in fall 2017 and STAT 705: Data Analysis II in spring 2018. This was a good opportunity to become more familiar with RStudio and SAS Studio, which he always suggested or made available to students, but rarely used himself. It is hard to ignore when all your students are using a different (and better) development platform than yourself.

John worked with PhD student **Stephanie Jones** to rewrite and document the sampling code for the Safety Belt Study as part of her master's thesis. We are hopeful it will make the process easier for the next resampling five years down the road.

John continues his university service positions in Information Technology, working both on the CIO's quite active IT Advisory Committee and the Information Security Advisory Committee. He also remains active at Congaree National Park, adding Instagram to his social media repertoire to publicize the park. His oldest daughter Caroline married in January, and John, his wife Rhonda, and daughter Emily traveled to Colorado in June to celebrate. And cook.

Karl Gregory, Assistant Professor, had a very fun time this year teaching STAT/MATH 511: Probability and STAT 512: Mathematical Statistics. What exciting and challenging courses to teach! He has been working since fall of 2017 with two PhD students, **Xiangyang Cao** and **Tuan Quoc Do**. This has been an exciting new chapter for him and it has offered great opportunities to look into new research topics. He has been hugely gratified this year by the publication in the *Annals of Statistics* of a paper entitled, "A smooth block bootstrap for quantile regression with time series", with two co-authors. Karl has also enjoyed collaborating locally with our colleagues Assistant Professor **Dewei Wang**, and with Chris McMahan, Associate Professor in the Department of Mathematics at Clemson University, on a paper about penalized regression with group testing data. This summer Karl travelled to the International Indian Statistical Association conference in Gainesville, Florida and presented on this work; for the rest of the summer he will remain in Columbia. Karl and his wife will be celebrating the first birthday of their younger daughter in July 2018 and will try to take their girls to the beach once or twice. In the fall of 2018 Karl looks forward to teaching STAT 513: Theory of Statistical Inference and spending some money from the Advanced Support of Innovative Research Excellence (ASPIRE) grant which he is very happy to have been awarded.

Brian Habing, Associate Professor, finished his 20th year at USC and continues to love teaching and doing research in Item Response Theory (IRT). This year he switched it up a bit and began the process of trying to step into the shoes of **Don Edwards**, Distinguished Professor Emeritus, as Director of Distance Education programs in Applied Statistics. Work in the coming year will include trying to get all of those programs' information onto the department's reformatted website. Highlights of the past year included: PhD student **Xinchu Zhao** presenting both a poster and a talk at the National Council of Measurement in Education (NCME) annual meeting in New York; working on projects with Dr Phil Sherlock, Special Projects Coordinator with the South Carolina Department of Education and **Sara Donevent**, PhD student in USC's College of Nursing as well as advising **Austin Koch**, undergraduate statistics major, with his senior thesis. Kevin, now 8 ½ years old, is heading on towards fourth grade and attempting to teach his dad all about the video game Minecraft.

Geeia Habing, Student Services Program Coordinator, finished her second year at USC, and her eleventh year on the University campus, which includes her time at the University Bookstore. She has been offering a helping hand to our students, faculty, and staff. Geeia has been dedicating her time to assisting with course registration; planning for colloquia; creating flyers, posters, newsletters, etc. She just celebrated her 25th wedding anniversary with her husband, Associate Professor **Brian Habing**. She keeps busy with helping Brian and their son Kevin with Cub Scout activities, traveling to visit friends and family, and loves coloring using colored pencils.

David Hitchcock, Associate Professor and Undergraduate Director, is finishing his 14th year on the Statistics Department faculty. He continues to serve as Undergraduate Director, overseeing the more than 70 undergraduate students who are Statistics majors. Two of David's PhD students graduated in the past year: **Songqiao Huang**, who is working as a Senior Biostatistician at Boehringer Ingelheim, a producer of biologic medicines, and **Chong Ma**, who has taken a postdoctoral research position in the Biostatistics Department at Yale University. David continues to work with several PhD students: **Yawei Liang**, who works on clustering of mixed data; **Haigang Liu**, who has done spatio-temporal modeling of flood and rainfall data; and **Bridget Manning**, who is investigating clustering categorical data using smoothed dissimilarities. He has continued to collaborate with **Dr Vidya Samadi** of the USC Civil Engineering Department on models for rainfall and flood data. Recently he has taught several distributed learning courses (nonparametrics, time series, advanced SAS programming) and is preparing to teach two more in the fall of 2018 (applied multivariate statistics, computing in statistics). Through these distributed learning courses, he has gotten to know many of the fine students in our Masters of Applied Statistics (MAS) and Certificate of Applied Statistics (CAS) programs. Outside of work, David is a Cub Scout den leader, a recreation-league soccer coach, an avid tennis player, and enjoys reading interesting books.

Yen-Yi Ho, Assistant Professor, enjoyed teaching STAT 704: Data Analysis for first year statistics PhD students last fall semester. In the class, students had hands-on experience in analyzing various large datasets for answering important scientific questions such as estimating health care costs for smoking using medical expenditure data. Yen-Yi graduated her first PhD co-advisee, **Chong Ma**, this summer. Chong started his new work as a postdoctoral fellow at the Department of Biostatistics at Yale University. In addition to teaching and mentoring, Yen-Yi had four papers published and submitted nine grant proposals in the past year. She received the College of Arts and Science Advanced Support of Innovative Research Excellence (ASPIRE) grant to support her research proposal. In January this year, Yen-Yi was invited to give a talk at the Department of Biostatistics at USC and initiated research collaboration with Biostatistics Department members.

Xianzheng (Shan) Huang, Associate Professor, continues her collaboration with colleagues from the University of Memphis and the United Kingdom on research on network inference. She is completing a second manuscript with her PhD student, **Xiang Li**, who is moving onto the final part of his dissertation research. She is formulating several new research projects relating to measurement error, mode regression, and directional data to work on during her sabbatical leave in the coming fall semester. Huang became a member of the Internal Society of Nonparametric Statistics this June.

Angela Laub, Instructor, completed her second year of teaching at USC, lecturing in STAT 201: Elementary Statistics and STAT 206: Elementary Statistics for Business.

Xiaoyan (Iris) Lin, Assistant Professor, continues her research in three areas: survival analysis, diagnostic accuracy analysis, and data imputation for environmental data. In the area of Bayesian survival analysis, she and her student are investigating and formalizing the application of power priors to cure rate models for right-censored data and to survival models for interval-censored data. For diagnostic accuracy analysis for screening and diagnostic tests, she continues to work with **Kerrie Nelson**, a former professor in our department and Research Associate Professor at Boston University, and **Don Edwards**, Distinguished Professor Emeritus at USC, under their R01 grant and aims to develop new statistical methods to study diagnostic accuracy and consistency amongst many experts in large-scale screening studies. She is working on a paper about Bayesian regression analysis for handling covariates with missing values below the limit of detection. She also keeps interests in Data Science education.

Jim Lynch, Distinguished Professor Emeritus, is still thoroughly enjoying his retirement with Peggy spending a good bit of time visiting their daughters and their families. In addition, Jim continues an active research program doing research on complex systems and empirical Bayes and subjective probability methods. The former topic is with two of his past PhD students, while the latter is with colleagues Assistant Professor **Paramita Chakraborty** and Professor and Department Chair, **John Grego**, and PhD student **Chong Ma** who graduated in June 2018.

Amanda Murphy, Instructor, completed her second year of teaching at USC , lecturing in STAT 206: Elementary Statistics for Business and STAT 201:, while replacing Maureen Petkewich as lab coordinator of STAT 201: Elementary Statistics.

Geophrey Odero, Instructor, completed his second year of teaching at USC. He has been very buy teaching STAT 110: Introduction to Statistical Reasoning and serving as the Course Coordinator for this class as well.

Edsel Peña, Professor, continued Friday research seminars with PhD graduate students **Shiwen Shen**, **Taeho Kim**, **Jeff Thompson**, **Lu Wang**, **Lili Tong**, and **Tahmidul Islam**. Shiwen Shen is expected to complete all requirements for his PhD degree this summer and has accepted a position as Data Scientist at New York Life. Jeff Thompson has accepted a position at the SC Commission on Higher Education, but is still planning on completing his doctorate degree.

Edsel Peña, a Department alumna, and PhD students at the American Statistical Association Risk Section Bernard Harris Symposium in Raleigh, North Carolina. From far left clockwise: Drs Edsel Peña (USC) and Piaomu Liu, (USC Statistics Department alumna and Assistant Professor at Bentley University) and USC Statistics Department PhD students Shiwen Shen, Taeho Kim, and Lili Tong.

Edsel also continues to direct the National Institutes of Health (NIH)-supported Biometry Core of the Center for Colon Cancer Research, though the NIH support for this Center ends this year. He also served on several department, university, and professional committees including several NIH study sections and a National Science Foundation (NSF) panel.

Edsel gave invited talks at Grenoble, France and Dortmund, Germany, and will be attending the Institute of Mathematical Statistics (IMS)/Bernoulli Society Meeting in Vilnius, Lithuania in his role as IMS Executive Secretary. At the Joint Statistical Meetings (JSM) in Vancouver, Canada, he will be giving a talk, helping with the American Statistical Association (ASA) Writing Workshop for Junior Researchers and serving as the Risk Section Representative to the Council of Section Representatives.

He and students **Shiwen Shen**, **Taeho Kim**, and **Lili Tong**, together with Statistics Department alumna **Piaomu Liu**, Assistant Professor at Bentley University, attended the ASA Risk Section Bernard Harris Symposium held in Raleigh, North Carolina (see picture page 7). In between his meetings in Dortmund, Germany and Vilnius, Lithuania, together with his wife, Marge, he was able to visit several Baltic Sea countries (Denmark, Norway, Germany, Estonia, Finland, and Sweden), and also Russia, as well as Ireland.

Maureen Petkewich, Clinical Assistant Professor, is wrapping up her final year as Assistant Chair and Clinical Assistant Professor in the Department of Statistics. This past year, Maureen taught STAT 201: Elementary Statistics and STAT 600: Statistics for Applied Management. She also developed STAT 112: Statistics and the Media for distributed learning, a course now required by the College of Nursing. Maureen presented on the Statistics and the Media course at both the Annual International Conference on Technology and Collegiate Mathematics (ICTCM) and USC's Oktoberbest. She was a member of the Provost's Distributed Learning Committee, led a Community of Practice at the Center for Teaching Excellence for Coordinators of Large Undergraduate Courses, and served her second term as a Preston Residential College Associate.

Maureen begins an appointment as Clinical Assistant Professor in the Darla Moore School of Business in fall 2018. She will miss everyone in the Department of Statistics dearly and is deeply grateful for the privilege of being a faculty member in Statistics for the past thirteen years!

Mohammed Quasem, Instructor, entered his 13th year of teaching in South Carolina in academic year 2017-2018. His first teaching jobs were at rural high schools in Calhoun and Jasper Counties. After two years he left teaching high school and started his college teaching career at Benedict College. After a few years, Mohammed left to teach at Midlands Technical College (MTC). With five years of experience at MTC, Mohammed joined USC's Statistics Department. USC is where he teaches, but is also where he received his Masters in Industrial Statistics (MIS)—it is a great honor for him to be able to teach where he studied.

Mohammed is originally from Dhaka, Bangladesh. When he was born, Mohammed's father, who lives with him today, was a prisoner of war and survived the nine-month 1971 genocide during the Bangladesh War of Independence (1970-1971). Mohammed's sister and her husband live in Dhaka today.

Mohammed has a teenage daughter and a grown daughter who keep him on his toes, but he says all credit goes to his super-efficient wife who keeps all of them in line. Golf is his favorite recreational sport and keeps him focused on improving his swing.

Wilma Sims, Manager of the Statistics Lab, is in her ninth year in the Department. See page 14 for an update of the Stat Lab's activities for this past year.

Joshua M. Tebbs is mentoring two PhD students in Statistics (**Xichen Mou** and **Ryan Stutz**) and currently serves as Chair of the Faculty Grievance Committee for the University. He continues to work on his National Institute of Health (NIH)-funded research in group testing and is a regular panel member on the Biostatistics, Methodology, and Research Design study section for NIH. His recent paper, *Hierarchical group testing for multiple infections,* written with co-authors Dr **Peijie Hou** (former graduate student at USC), Christopher Bilder, and Christopher McMahan, who recently won Best Paper in Biometrics by an International Biometric Society (IBS) member for 2017 and the American Statistical Association's Outstanding Statistical Application Award for 2018.

Lianming Wang, Associate Professor, challenged himself to teach an online course for his first time in fall 2017, and that was also his first time teaching STAT 761: Reliability and Life Testing. Teaching that course benefited him a lot in improving his knowledge in reliability and his teaching styles. He published a research article in *Statistical Methods in Medical Research* and submitted two manuscripts in 2017. His student **Shengyang (Sean) Wang** graduated in spring 2017 and took an industrial job in Charlotte NC. Lianming enjoyed his sabbatical leave this past spring and took care of his baby boy David.

Dewei Wang, Assistant Professor, is glad to see his PhD students **Peijie Hou** and **Chuan-Fa Tang** doing extremely well in their new positions. At present, he is working with students **Juexin Lin**, **Xichen Mou**, and **Xiangyang Cao**. Juexin's first paper has been accepted by the *Journal of Nonparametric Statistics.* Her second manuscript is currently under review at *Statistics in Medicine.* In teaching, Dewei finished STAT 513: Theory of Statistical Inference, the last course of the STAT 511-513 sequence (which includes Probability, Mathematical Statistics), in spring 2017, and taught STAT 823: Large Sample Theory in fall 2018. He always enjoys leading students through a theoretically beautiful view of statistics. Dewei is looking forward to teaching qualifying exam courses STAT 712-713: Mathematical Statistics I and II in the upcoming academic year. He submitted his first National Science Foundation (NSF) proposal with his collaborator at the University of Louisville. Unfortunately, the proposal's score fell right below the board's cutoff line. The critiques will be incorporated to improve the proposal for a second try. Dewei also resubmitted his National Institutes of Health (NIH) R03 proposal on evaluating biomarkers through pooling; he learned a lot from the failure of the initial submission. The improved version is currently under review. No matter where funded or not, Dewei will consistently make efforts to applying for grants.

Gail Ward-Besser, Instructor, had a busy year coordinating STAT 206: Elementary Business Statistics, taught to all entering first-year business students. She also taught STAT 110: Introduction to Statistical Reasoning and STAT 112: Statistics and the Media, and finds herself in more and more service roles as students get to know her through her large lecture classes.

Faculty, Staff, and family at the Spring Graduate Student Awards Picnic 2018. Top: Nick Yell, Mohammed Quasem. Second row: Edsel Peña, Kathryn Dobereiner, Wilma Sims, David Hitchcock. Third row: John Grego, Maureen Petkewich, Lianming Wang, Brian Habing, Josh Tebbs. Fourth row: Geeia Habing, Amanda Murphy, Gail Ward-Besser, Geophrey Odero, Karl Gregory, Lois Gregory. Bottom: Yen-Yi Ho, Xianzheng (Shan) Huang, Xiaoyan (Iris) Lin, Viva Gregory.

Statistics Consulting Lab

Wilma J. Sims

The Stat Lab continues to operate with one full-time staff member, manager Wilma Sims. In addition to gratis consulting and contract work, Wilma continues to provide assistance to students in USC's School of Medicine Genetics Counseling Program. She makes a presentation to first-year genetics counseling students on data management and analysis and meets with most of the second-year students individually to discuss their analysis plan. Wilma was also invited to participate in USC's College of Hospitality, Retail, and Management Brown Bag Lunch Series, and she made several presentations to the research classes at Chapin High School in Chapin, South Carolina.

Former Stat Lab director, John Grego, continues to handle projects with long-term clients such as SC Department of Natural Resources. John also continues to teach the consulting seminar while Wilma oversees the consulting practicum.

The Stat Lab continued work with SC Department of Public Safety and DAK Americas, and we also provided assistance to SC Commission for Minority Affairs, Family Solutions of the Lowcountry, and the US Geological Survey.

Palmetto Lecturer IX

Joseph Ibrahim, our ninth Palmetto Lecturer, visited campus the week of March 5–March 9, 2018. Lianming Wang, Associate Professor, made initial arrangements, and John Grego, Professor and Department Chair, and Geeia Habing, Student Services Program Coordinator coordinated the visit while Lianming was on sabbatical.

Dr Ibrahim is Alumni Distinguished Professor in the Department of Biostatistics at University of North Carolina-Chapel Hill. He is the department's Director of Graduate Studies, and principal investigator for two National Institutes of Health (NIH) grants that support development of statistical methodology related to cancer and genomics research.
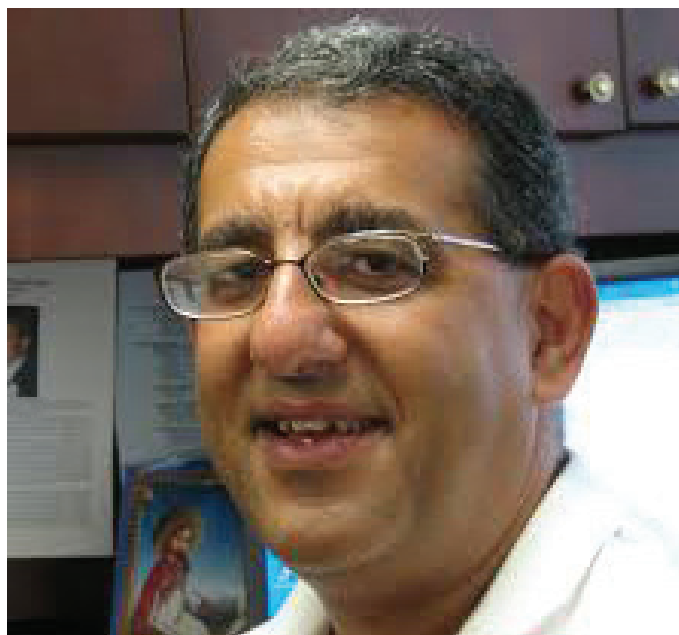
Dr Ibrahim is also the Director of the Biostatistics and Data Management Core at UNC's Lineberger Comprehensive Cancer Center. He is currently the biostatistical core leader for the NIH-funded Breast Cancer Specialized Programs of Research Excellence (SPORE) project and co-PI of the statistical P01 grant titled "Statistical Methods in Cancer Clinical Trials".

Dr Ibrahim is a Fellow of the Institute of Mathematical Statistics, a Fellow of the American Statistical Association, a Fellow of the Royal Statistical Society, and an Elected Member of the International Statistical Institute.

Dr Ibrahim's colloquium talk discussed the power prior, an informative prior constructed from historical data. He reviewed theoretical properties, then discussed models for which the power prior has been used, including generalized linear models, survival models and random effects models. He closed by discussing frequentist properties of the power prior in posterior inference.

Prof. Ibrahim met with faculty and students throughout the week, including a well-attended luncheon with students at the McCutchen House.

At the South Carolina American Statistical Association annual meeting on Friday, Prof. Ibrahim presented a talk entitled "Bayesian design of superiority clinical trials for recurrent events data with applications to bleeding and transfusion events in myelodysplastic syndrome". He studied recurrent events, such as bleeding and multiple infections for lower risk myelodysplastic syndrome patients (a type of bone marrow cancer) who were treated with different therapies in a superiority clinical trial, i.e. trials in which the treatments must be shown to be clearly better than the control treatment or a placebo. A Bayesian approach using recurrent events frailty models was used, with historical recurrent events incorporated in a partial borrowing power prior.

Prof. Ibrahim's talk was preceded by a set of presentations by graduate students from USC Statistics Department, Clemson University, and Medical University of South Carolina (MUSC). Stella Self from Clemson University was awarded Best Student Presentation, while Haigang Liu from our department received second prize.

Student News

Graduate Awards
2017–2018

Outstanding Graduate Assistant
Tuan Quoc Do
Tahmidul Islam
Qianqian Wang

Outstanding First Year Graduate Student
Zhen Yang

Outstanding Graduate Student in Academics
Haigang Liu

Citizenship Award
Chong Ma
Shiwen Shen

James D. Lynch Graduate Student Research Award
Zichen Ma

Undergraduate Awards
2017-2018

Department of Statistics Excellence in Academics
Emma McCaffrey

John D. Spurrier Scholarship
Thomas Best

Mu Sigma Rho Award
Michelle Millender

Stephen D. Durham Award
Thomas Duncan

Graduate Program Degrees
August 2017–May 2018

PhD in Statistics
Seung Chul Baek, PhD
Songqiao Huang, PhD
Chong Ma, PhD
Beidi Qiang, PhD
Chuan-Fa Tang, PhD

Master of Science in Statistics
Bryonna Bowen, MS
Yuan Huang, MS
Stephanie Jones, MS
Pedro Nielsen Rotta, MS

Master of Applied Statistics
Dillon Clopton, MAS
Qian Fan, MAS
Heather Haskell, MAS
Connor Joy, MAS
Junyu Lu, PhD Geography, MAS
M. Carson Rogerson, MAS
William Z. Smith, MAS
Gregory Saint Amour, MAS
Md Majbah Uddin, MAS
William G. Weaver, MAS
Matt J. Yates, MAS

Post-Baccalaureate Certificate of Applied Statistics (PBAC-AS)
Aliaa Balegh, MA Mathematics, PBAC-AS
Patricia Boyd, MA Political Science, PBAC-AS
Young Choi, Master of Retailing, PBAC-AS
Md Maidul I. Chowdhury, MA Economics, PBAC-AS
Jayson M. Keels, PBAC-AS
Fawad Kirmani, PBAC-AS
Anastasiia Piterskaia, MA Economics, PBAC-AS
Alicia Plemmons, PBAC-AS
Mary Priester, PBAC-AS

Certificate of Graduate Study in Applied Statistics (CGS-AS)
Bradford Montgomery, CGS-AS
Cassandra Smith, CGS-AS
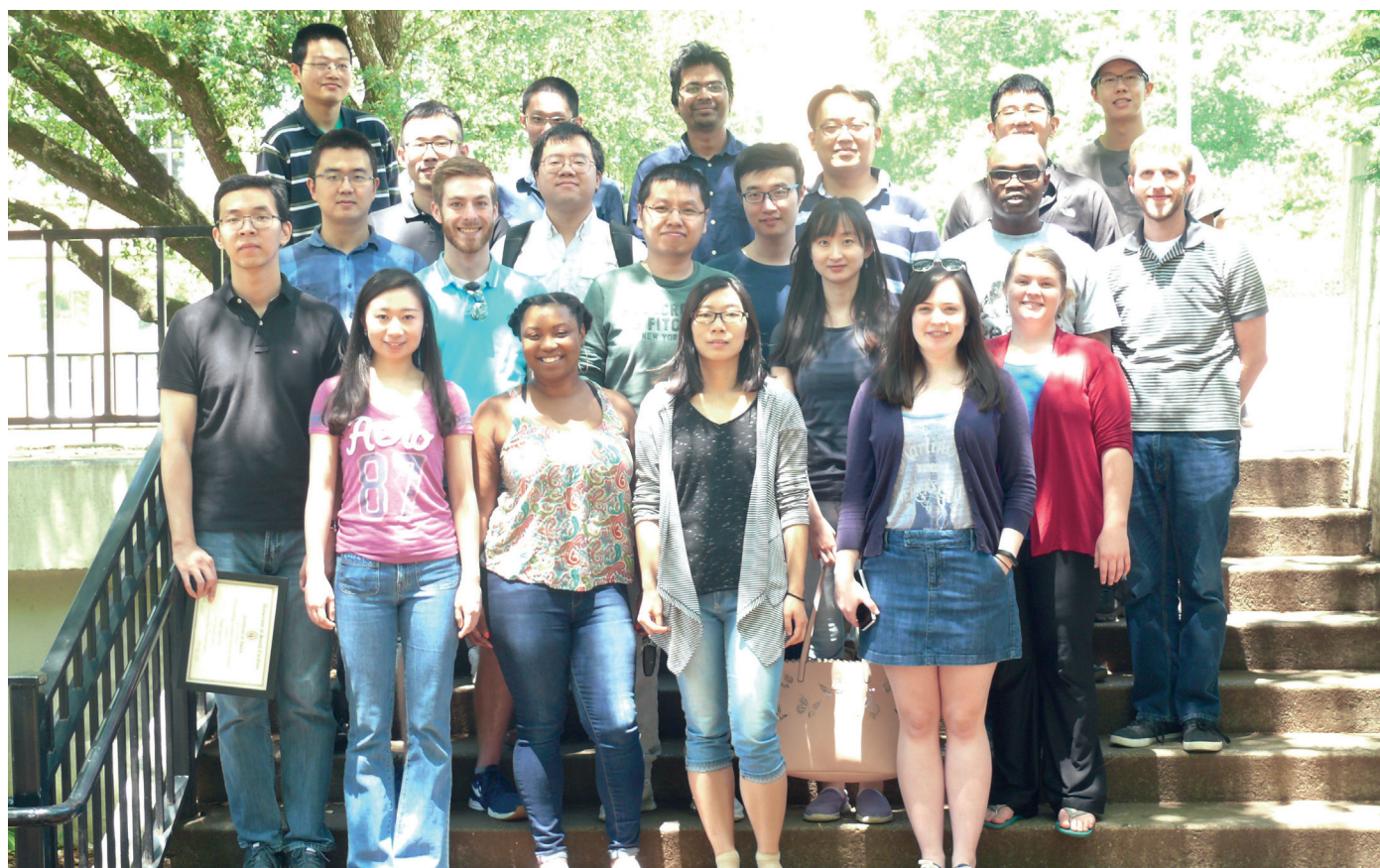Yang Zheng, PhD Chemistry, CGS-AS

Graduate Program

Producing two or three publications from dissertation research with their advisors is becoming a new norm among our graduate students. Continuing collaborations between our faculty and recent graduates are also common in recent years. These lead to an impressive number of publications in academic year 2017-2018 appearing in mainstream statistical journals such as *Biometrics*, *Electronic Journal of Statistics*, *Journal of American Statistical Association*, *Journal of Nonparametric Statistics*, *Lifetime Data Analysis*, *Scandinavian Journal of Statistics*, and *Statistica Sinica*.

With support through USC's Office of Research, and National Science Foundation (NSF) travel grants, our graduate students gave talks and presented posters at the Institute of Biometric Society's Eastern North American Regional Meeting, the Annual meeting of the National Council on the Measurement in Education, American Statistical Association (ASA) Risk Section Bernard Harris Symposium and Joint Statistical Meetings in the past academic year.

The Department supported almost 40 graduate students in academic year 2017-2018. Similar to previous years, almost half of our recent graduates landed their first jobs in academia, as an instructor, or tenure-track assistant professors in teaching-and-research universities, or as postdoctoral research fellows at prestigious universities. We will be supporting ten incoming graduate students in fall 2018.

Outstanding Graduate Assistant Awards went to Tahmidul Islam, Tuan Quoc Do, and Qianqian Wang. The Outstanding Graduate Student in Academics was Haigang Liu, and the Outstanding First Year Student was Zhen Yang. Chong Ma and Shiwen Shen won the Citizenship Award, and the James D. Lynch Award for Graduate Research went to Zichen Ma.

Spring Graduate Student Awards Picnic 2018

Top: Lili Tong, Xiang (Kingsley) Li, Zichen Ma, Tahmidul Islam, Seung Chul Baek, Shiwen Shen, Zhen Yang. Second row: Xichen Mou, Ryan Pittman, Yizheng Wei, Qiang Zheng, Haigang Liu, Lu Wang, Geophrey Odero, Jeff Thompson. Third row: Tuan Quoc Do, Yifan Zhang, Bridget Manning, Chunling (Penny) Wang, Stephanie Jones, Bryonna Bowen.

Undergraduate Program

The undergraduate statistics program continues its steady growth. We had over 70 statistics majors in spring 2018, many of whom are in our popular actuarial science concentration. Nine students in spring 2018 and three in fall 2017 graduated with their Bachelor of Science Degree in Statistics. David Hitchcock continues as Undergraduate Director.

The undergraduate program has settled into the new advising paradigm that was begun last year. Our freshman majors are advised by a First-Year Advisor from the College of Arts and Sciences, in collaboration with the Undergraduate Director. We are fortunate to have Jenny Sweitzer now filling that role; Jenny is replacing our excellent First Year Advisor Rachel Blanset, who moved to East Carolina University. Once the students reach their sophomore year, they are assigned an advisor from one of our set of undergraduate advisors: David Hitchcock, Lianming Wang, Dewei Wang, Karl Gregory, and Yen-Yi Ho. The department continues to have a booth at the Summer Orientation Fair to advertise our undergraduate programs to incoming freshman and transfer students.

Several students won awards in spring 2018 for their outstanding academic work: Michelle Millender won the Department's leading honor, the Mu Sigma Rho Award. Thomas Duncan won the Stephen Durham Award, signifying recognition as one of the top two experienced statistics majors. Emma McCaffrey won the department's Excellence in Academics Award as top performer among sophomore/junior level majors. Finally, Thomas Best won the John Spurrier Scholarship as the top first-year statistics major. In addition to these students, the statistics program was privileged to have numerous other students that excelled in their academic achievements.

In curricular news, the Statistics Department is working with the Computer Science and Engineering Department in hopes of making the path to double-majoring in statistics and computer science easier. We continue to see enthusiastic interest from students in other majors in double-majoring in statistics or changing majors to statistics.

Distributed Learning

Brian Habing took over for Don Edwards as the Department's Distributed Learning Coordinator in the fall of 2017. The momentum from Don's work continued for the Master of Applied Statistics (MAS) and Certificate of Graduate Study in Applied Statistics (PBACC), including an increasing number of students who took our STAT 700: Applied Statistics I course deciding to continue into 701: Applied Statistics II and the certificate.

For the academic year 2017-2018 there were 65 MAS, PBACC, and graduate non-degree students who took at least one course or comprehensive exam! Eleven students were awarded their MAS degrees in either August 2017, December 2017, or May 2018: Dillon Clopton, Qian Fan, Heather Haskell, Connor Joy, Junyu Lu, M. Carson Rogerson, William Smith, Gregory Saint Amour, Md. Majbah Uddin, William Weaver, and Matthew Yates. Twelve students were awarded the certificate: Aliaa Balegh, Patricia Boyd, Young Choi, Md., Maidul Chowdhury, Jayson Keels, Fawad Kirmani, Bradford Montgomery, Anastasiaa Piterskaia (Rhodes Scholar), Alicia Plemmons, Mary Priester, Cassandra Smith, and Yang Zheng.

Maureen Petkewich again coordinated our distance efforts at the undergraduate level. STAT 112: Statistics and the Media has been redesigned in a distributed learning format to satisfy new program requirements in the College of Nursing. Maureen made presentations on the redesign of STAT 112 at both the International Conference on Technology in Collegiate Mathematics (ICTCM) and at USC's Oktoberbest this year. The online course features discussion boards on statistics reported in the media, exploration of interactive online statistics applets, and online research activities for finding primary sources of information reported in the media (developed in collaboration with faculty from the Library Science Department).

STAT 205: Elementary Statistics for the Biological and Life Sciences will be offered in a distributed learning format for the first time in fall 2018. The department continues to offer these high enrollment service courses in a distributive learning format as well: STAT J110: Introduction to Statistical Reasoning, STAT J201: Elementary Statistics, STAT J515: Statistical Methods I and STAT J600: Statistics for Applied Management.

Alumni and USC Statistics Family News

Nairanjana Dasgupta (MS 1994, PhD 1996), Boeing Distinguished Professor in Science/Math at Washington State University, was successfully nominated as a Fellow of the American Statistical Association; she will be recognized at the 2018 Joint Statistical Meetings in Vancouver, British Columbia.

John Grego, *Nairanjana Dasgupta* and *Dean Johnson (MS 1993)* at the Joint Statistical Meetings in Baltimore.

Jianxuan Liu (PhD 2017) and her husband have accepted tenure-track positions in the Department of Mathematics at Syracuse University; she will be moving on from her current position at Bowling Green State University.

Brad Llewelyn (MS 2012) visited to speak about training to be a data scientist to a well-attended joint meeting of the Stat Club, Mu Sigma Rho, Pi Mu Epsilon, and Gamecock Math Club.

Carold (Ted) Shropshire (MIS 1998), our very first Masters of Industrial Statistics student, works as Director of Continuous Process Improvement for the Assistant Secretary of the Army for Acquisitions, Logistics, and Technology.

Brad Llewelyn answering questions at a joint meeting of the Stat Club, Mu Sigma Rho, Pi Mu Epsilon, and the Gamecock Math Club.

Emmy Smith (MS 2005) earned an MBA in 2016 and started work at Amazon Web Services in Seattle in 2017. She was recently promoted to Business Intelligence Engineer. Emmy is happy to chat with any of our current students interested in Amazon.

Laura Taylor (PhD 2008), Assistant Professor of Statistics at Elon College, received the Excellence in Teaching Award in 2017.

Wensong Wu (PhD 2011) was granted tenure and promotion to Associate Professor this past year at Florida International University.

Phil Yates (PhD 2006) accepted a dream job at his undergraduate alma mater, DePaul University. He will be moving on from St. Michael's College.

STAT 201 Lab 200A. *Using STAT 201 lab fees, we replaced the frankly scary-looking carpets in our older STAT 201 lab rooms, LeConte 200A and LeConte 205. They looked great until our first water leak in LeConte 205 only days later.*

We Want To Hear From You!

We would like to share information about your accomplishments and activities. If you have changed jobs, received a promotion or award, earned a new degree, married, traveled, or anything new has happened to you, please let us know. Send information to John Grego, grego@stat.sc.edu along with any updates in your mailing and/or email addresses.

Thank You for Your Support!

Scholarships and fellowships are funded with interest from their respective funds. Contributions to these funds will continue to help in the development of young statisticians. Contribution forms for these funds are attached for your convenience at the end of this newsletter. Thank you so much!

To donate, please go to https://sc.edu/giving/givenow/education and use a keyword search for any of the four funds listed below.

USC Educational Foundation

Contributions to the department can be made to any of three funds within the USC Educational Foundation. Your tax-deductible gifts can be distributed among the three funds in any way you specify.

Scholarships and fellowships are funded with interest from their respective funds. Contributions to these funds will continue to help in the development of young statisticians. Contribution forms for these funds are enclosed for your convenience at the end of this newsletter.

The John D. Spurrier Scholarship

On the event of his retirement in 2008, the department established the John D. Spurrier Scholarship Fund to provide scholarships for first-year undergraduate statistics majors. The fund was vested in 2010 and we now offer an annual scholarship whenever we have an eligible candidate. Please do consider helping with contributions to the Spurrier Scholarship Fund (Account B11516).

The W. J. Padgett Fellowship

This fund (Account 1B1593) was established in 1993 and helps us attract outstanding graduate students to the department by offering supplemental fellowship stipends to the regular assistantship. The Padgett Fellowship has been offered to at least one new graduate student each year in recent years and can really make the difference when competing for students against other outstanding statistics programs.

The Department General Fund

The Department of Statistics General Fund is critical to our operations and recruiting efforts. By law, certain expenditures such as the new James D. Lynch Graduate Research Award, the Stephen D. Durham Undergraduate Award, and other student awards and reimbursements can only be paid with these contributed funds. Please consider a contribution to the Statistics Department General Fund (Account 1A3410).