STAT NEWS

USC Department of Statistics Newsletter

Update from the 2023-24 Chair

By David Hitchcock

It's been a while (since 2019!) since we last published our department newsletter, and wow, has a lot happened! At that time, John Grego was getting ready to hand the reins as department chair to Josh Tebbs, and as I write this, I'm getting ready to hand the reins as chair to Edsel Peña. So, let's briefly recap our busy last few years, with a focus on recent news.

Josh's four years as chair were highlighted by his leadership through a couple of major challenges: First, he navigated the department through handling our teaching and research mission during the pandemic. We all got a lot more comfortable with teaching virtually and meeting over Zoom during that year or two! Thankfully, now we are back to having most of our instruction in-person, although we have several online lower-level course offerings that are popular and convenient for students. The second big challenge that Josh guided us through was the much-needed renovation of LeConte College, our home building since the founding of the statistics department. Delayed for a year because of the pandemic, the renovation began when we packed up our offices and moved from LeConte to the Carolina Coliseum. We operated in the cozy, albeit windowless, environs of the Coliseum for the whole 2021-22 academic year before returning to the newly renovated LeConte over Labor Day 2022. In this newsletter are some pictures of the renovated building, which looks amazing! Our fantastic business manager, Kathryn Dobereiner, was instrumental in planning the details of the move, and we can't thank her enough for helping it all go to plan.

Beyond those two huge events, Josh's time as chair was marked by his special attention to our B.S. and Ph.D. programs as he fought for lower class sizes and curricular improvements, with the help of the undergraduate and graduate committees. Josh also spearheaded several hires of tenured and tenure-track faculty (details given below) and brought in some truly outstanding professional-track faculty to bolster our cohort of instructors.

Since Josh stepped down as chair after spring 2023, I've served as interim chair during the 2023-24 school year, which was marked by a busy and historically successful hiring season. This summer, Edsel Peña, who returned to the department last August after a highly successful three-year term as a Program Director at the National Science Foundation, begins his term as department chair. We are all excited to have Edsel leading the department in upcoming years!

As mentioned, the most exciting happening of this year was our amazing hiring success. We hired three wonderful new faculty who will start as Assistant Professors in August 2024: Will Consagra from University of Rochester (Ph.D.) and Harvard Medical School (postdoc); Yuexuan Wu from Florida State (Ph.D.) and University of Washington (postdoc); and Shanghong Xie, an assistant professor at Southwestern University of Finance and Economics, who did her Ph.D. and postdoc (working with Todd Ogden!) at Columbia University. We're grateful to the College for allowing us an unprecedented three tenure-track hires in one year!

Those new arrivals will join some other fairly new faces in the department. In January 2024, we welcomed back Professor Ian Dryden as a faculty member; many of you remember him from his time at USC in 2009-2012. We are thrilled to have such a truly outstanding research expert and dedicated faculty member back with us! Our assistant professors Ray Bai

and Ting Fung Ma joined us in 2020 and 2022, respectively, and they are off to amazing starts to their careers as researchers, teachers, and important department members.

2023-2024 Faculty and Staff

Our professional-track faculty has several great recent hires as well. Prince Allotey joined us this January from the University of Washington. Ryan Stutz and Griffin Brooks were hired in August 2023 after completing their Ph.D. and M.S. degrees, respectively, in our program. In 2022, James Bird came on board from University of Colorado and David Weaver joined us after many years in Washington DC with the Social Security Administration and Congressional Budget Office. Kelvin Pompey joined our faculty full-time in 2022 after several years teaching part-time for us while completing his Ph.D. And Wilma Sims, who is often the glue that keeps the department together, shifted from a staff position to a faculty position this year, so she will teach with us and serve as Scheduling Coordinator and Undergraduate Director next year. Finally, Beth Orlik joined our office staff in early 2023 and since then has been an indispensable member of the office team along with Kathryn to keep the department running smoothly.

The spring semester finished with a flourish as several of our faculty members were honored with awards. Edsel Peña attained the prestigious rank of Fellow of the Institute of Mathematical Statistics, a highly exclusive group. Soon after that, Edsel was named the Science winner of the 2024 Severino and Paz Koh Lectureship, given by the Philippine-American Academy of Scientists and Engineers. He gets to travel to the Philippines this summer to give his honorary lecture, followed by a trip to Germany to receive his IMS Fellow award.

Amanda Murphy was selected as the 2024 winner of the College of Arts and Sciences Undergraduate Teaching Award for Professional Track Faculty. This award celebrates the outstanding work Amanda does in teaching our service courses and serving our department as a whole!

Finally, I was honored to be selected for the 2024 Mu Sigma Rho William D. Warde Statistics Education Award, which I will receive at the Joint Statistical Meetings in Oregon this summer. The first winner of this national award was none other than our own John Spurrier in 2000!

This spring's run of awards follows the exciting news from 2023 that Ray Bai earned a McCausland Fellowship, which is the most prestigious award that the College of Arts and Sciences gives to junior faculty. Dr. Bai has used the McCausland funds in part to support his PhD advisees.

Our 2024 Palmetto Lecturer was Prof. Regina Liu from Rutgers University. Dr. Liu gave two talks, one in the department colloquium time slot and one at the South Carolina American Statistical Association (SCASA) chapter meeting this April. The topic of her talks involved prediction with confidence using confidence distributions, a fascinating concept that dates to the 1950s but which Regina and her collaborators are currently reviving. Dr. Liu is a highly decorated researcher who pioneered the concept of data depth, and this year she will be receiving the Elizabeth Scott Award for her contributions to women in statistics. Regina's lecture continues the successful run of Palmetto Lecturers that in recent years has included Bani Mallick (2023), Karen Messer (2022), and Michael Kosorok (2021).

Our undergraduate program in statistics remains strong with around 90 majors, and the quality of the students is quite strong overall. One major upcoming change is the addition of two new interdisciplinary B.S. programs, one in Data Science and one in Data Analytics. These programs are under the purview of the College of Arts and Sciences and are jointly administered by the Statistics and Mathematics departments, in conjunction with Computer Science, and Engineering. The most critical person is the success of the proposal for these programs was our own faculty member Brian Habing, who did the strenuous work of guiding the proposals through the university administration and the state

education committees. As the programs kick off in Fall 2024, Brian will serve as the first director of the Data Science and Data Analytics programs.

Our graduate program continues to have around 35 supported Ph.D. and M.S. students, many of whom are doing stellar research and who typically land excellent jobs after graduating. We have revised our Ph.D. course requirements to require a more streamlined set of courses and allow our Ph.D. candidates to get deeply into research earlier. In recent years, we've allowed our M.A.S. program to wind down, with a few students finishing that degree but with no newly admitted M.A.S. students. Instead, we have preliminary plans for a data science track within our traditional M.S. program and we will be developing that over the next year or two.

2023-2024 Graduate Students

To end, I will mention that we are in the initial stages of planning a research symposium to celebrate the statistics department's 40th anniversary in Fall 2025.

Undergraduate Program

Our undergraduate statistics program continues to showcase the excellence of our statistics students. We have consistently been at around 90 statistics majors for the past few years. Brian Habing took over the undergraduate director role in August 2023 after David Hitchcock led the undergraduate program for the previous seven years. In Fall 2024, with Dr. Habing leading the new data science and data analytics programs, Wilma Sims will take leadership of the undergraduate program.

Consistent with an increasingly centralized role for advising, a professional College advisor will handle undergraduate academic advising starting in Fall 2024. The department faculty will still maintain discipline-specific mentoring roles for our undergraduate majors to help them explore educational and career paths.

Recent curricular changes include the addition of several new options for capstone-type integrative courses, such as courses in Advances Statistical Models and in Bayesian Statistics. The new data science major has led to some exciting new course offerings this coming year that statistics majors can take, such as courses in R for Data Science and in Machine Learning with Python. Both on its own and in conjunction with data science and data analytics, our program continues to reflect the value of statistical computing, state-of-the-art methods, and the growing fields of machine learning, and AI.

2024 award winners Jonathan Purtell, Alexandra Defalco, Jacob Carpenter

One exciting recent trend has been the revitalization of the Statistics Club, led by presidents Jackie Purtell, Ashley Howard, and Isabelle Bennett, and other recent officers (Lauren Teal, Nate Ladimir, Leah Wood, Gwen Simons, Lauren Young, John Besser, Chad Koch, Reese Ward, and Phillip Haehner). Over the past three years, the Statistics Club had meetings in which students shared internship experiences; met alumni who are now working in the statistics field; visited with local actuaries; heard from current graduate students about what grad school in statistics is like; learned about the interface of statistics and the courtroom from retired faculty (including former department chair Don Edwards!); and had fun times playing games like "Statistics Family Feud" and "Two Truths and a Lie". We encourage current students to get involved with Stat Club!

Finally, our 2024 undergraduate award winners were Mark Vaughn (Mu Sigma Rho Award) and Alexandra Defalco (Stephen Durham Award) as our top two senior statistics majors; Jonathan Purtell (Excellence in Academics Award) as our top sophomore/junior major; and Jacob Carpenter (John Spurrier Scholarship) as our top first-year major.

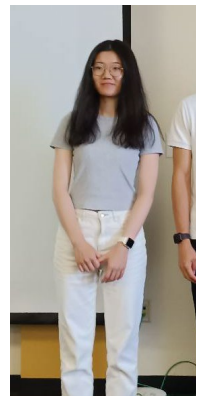| Year	Mu Sigma Rho Award	Durham Award	Excellence in Academics	Spurrier Scholarship
2024	Mark Vaughn	Alexandra Defalco	Jonathan Purtell	Jacob Carpenter
2023	Cade Stanley	Lauren Young	Matthew Carter	Gwen Simons
2022	Mason Joiner	Christopher Hynes	Cade Stanley	Alexandra Defalco
2021	Thomas Burkett	Thomas Best	Samuel Courson	Mary Shavo
2020	Nicholas Tice	Samyu Comandur	Aimée Petitbon	Cade Stanley

Undergraduate students inducted into the Statistics Honor Society Mu Sigma Rho in 2023, from left to right: Taylor Stone, Izzy Manzi, Sabrina Vascinec, Camryn Lubner, Lauren Young, Mike Cuozzo, Silas Scribner, Matthew Carter (not pictured: Ben Hodges, Allie Hoffman)

Graduate Program

Our graduate students continue to shine in their courses and dissertation research! In the past year, our students' research with their advisors has appeared or been accepted in major journals such as *Biometrika*, *Statistics in Medicine*, *Biometrics*, *Computational Statistics and Data Analysis*, and *Bayesian Analysis*.

In addition to publishing research, our graduate students have traveled to conferences such as the Eastern North American Regional (ENAR) meeting, the SRCOS Summer Research Conference, and the Joint Statistical Meetings (JSM) to present their research. An amazing 16 students traveled to ENAR in Baltimore in March to present research talks! Several other students gave talks at the South Carolina ASA Chapter meeting in April; Shuqi Song won a Best Student Presentation award!

The department has had around 30 to 35 supported graduate students over the past few years. Our graduates have enjoyed great placement in industry or academic jobs in recent years. Some employers of recent Ph.D. and M.S. graduates have included: Goldman Sachs; Wells Fargo; Walmart Labs; Texas A&M postdoc; Aerojet Rocketdyne; and the Arizona Cardinals of the NFL! We will be welcoming eight new supported graduate students to the department in Fall 2024!

Shuqi Song wins Best Student Presentation

Graduate Student Awards 2024:

Outstanding Graduate Assistant Awards: Anderson Bussing, Jiasong Duan, Yanyan Zhan

Outstanding First-Year Graduate Student Award: Fanghua Chen

Outstanding Graduate Student in Academics Award: Brian Harrold

James D. Lynch Graduate Student Research Award: Nicholas Woolsey

Citizenship Awards: Shijie Wang, Jedidiah Lindborg

Huynh-Feldt Award: Shuyi Yang

Award recipients Fanghua Chen, Brian Harrold, Jedidiah Lindborg, Yanyan Zhan, Shuyi Yang, Jiasong Duan, and Shijie Wang.

Graduate Student Awards 2023:

Outstanding Graduate Assistant Awards: Jihyun Kim, Jedidiah Lindborg, Shuqi Song

Outstanding First-Year Graduate Student Award: Brian Harrold

Outstanding Graduate Student in Academics Award: Anderson Bussing

James D. Lynch Graduate Student Research Award: Shijie Wang

Citizenship Awards: Qingyang Liu, Rubaiya

Huynh-Feldt Award: Yizhou Cai

2023 Graduate Awards Picnic

Recent Graduates:

Ph.D. in Statistics: 2024: Yuchen Mao, Shijie Wang, Yun Yang, Zehau Yu. 2023: Qingyang Liu, Yang He. 2022: Zhen Yang, Wenda Zhang, Ryan Pittman, Shan Zhong. 2021: Ryan Stutz, Lili Tong, Tahmidul Islam, Zichen Ma. 2020: Bridget Manning, Chunling Wang, Ennan Gu, Lu Wang, Tuan Do, Xiangyang Cao, Yizheng Wei.

M.S. in Statistics: 2023: Ailish Stein, Griffin Brooks, David Laird, Isabelle MacNeish, Rubaiya. 2022: Imtiaz Ebna Mannan, Nick Tice, Marisa Rank. 2020: Nubaira Rizvi, Siyuan Song, Jianhuai Hu, Xiran Wang, Quan Lin, Caroline Kerfonta

2024 Palmetto Lecture

In April 2024, the department welcomed Regina Liu, a Distinguished Professor of Statistics from Rutgers University, as its 14th Palmetto Lecturer. Prof. Liu is a Fellow of the Institute of Mathematical Statistics and a Fellow of the American Statistical Association. She has also recently been named the 2024 winner of the Elizabeth Scott Award for her contributions to women in statistics.

Regina Liu, David Hitchcock, and Jedidiah Lindborg dining out after the colloquium

Prof. Liu gave a fascinating talk in the department colloquium about prediction with confidence using a predictive distribution function, applying their method to predict the number of submissions to a government agency. Later that week, Prof. Liu was the keynote speaker of the meeting of the South Carolina chapter of the American Statistical Association (SCASA) on the USC campus. She spoke about Fusion Learning, which involves combining inferences from multiple data sources using the bootstrap, the concept of data depth, and a topic known as the confidence distribution which Liu and her collaborators have recently revived after its original introduction in the 1950s!

In addition to hearing her talks, both the faculty and graduate students in the department had a wonderful chance to spend time with Regina during research chats and meals. Thanks to Ray Bai for organizing the arrangements for Prof. Liu's visit!

Faculty and Staff

Prince Allotey, Senior Instructor, joined the department this year. He obtained his Ph.D. in Statistics from the University of Connecticut. Prior to joining the department, he was an Assistant Teaching Professor at the University of Washington. He enjoys teaching and has a passion for helping students use statistical techniques to analyze real-life data and critically interpret statistical results. He is also dedicated to increasing diversity in the mathematical sciences by encouraging underrepresented minorities to major in these fields. His research interests include spatial survival modeling, missing data methods, statistics education, and data science education. He is an elected member of the American Statistical Association (ASA) Committee on Minorities in Statistics, and he currently serves as the chair of the ASA Diversity Mentoring Program. Outside of work, Prince enjoys traveling and watching soccer.

Ray Bai recently finished his fourth year as an Assistant Professor in the Department. This summer, he graduated his first PhD student Shijie Wang whose dissertation "New Deep Learning Approaches for Classical Statistical Problems" resulted in three publications, two in the *Journal of Computational and Graphical Statistics* and one in *IEEE Signal Processing Letters.* In addition, Dr. Bai published a first-author paper in the *Journal of Machine Learning Research* in Fall 2023.

Kathryn Dobereiner is in her 17th year at the university and in her 9th year with the Statistics Department. She continues to enjoy her position as Business Manager and looks forward to welcoming our new faculty and students this fall! Kathryn continues to enjoy spending time with her family, running, and recently started playing pickleball.

Ian Dryden rejoined the department in Spring 2024 and enjoyed teaching a topics course on Object Oriented Data Analysis. The course was based on his recent book with Steve Marron (University of North Carolina Chapel Hill), and the excellent contributions in class from the graduate students were much appreciated. He continues to collaborate with researchers at Florida International University and the University of Nottingham and is busy starting new research projects with colleagues at USC on the analysis of shapes, functions, images, networks and other forms of object data. He was an organizer of the workshop on Object Oriented Data Analysis in Health Sciences at IMSI in Chicago in the summer of 2023, and is an invited speaker at the POPNets workshop at the Pioneer Centre for AI in Copenhagen, Denmark in June 2024 on understanding populations of graphs from different angles.

Don Edwards is enjoying his semi-retirement living on Tybee Island with Sharon. They are both in good health, traveling a bit, enjoying grandbabies, and working part time from home. In work, Don is concentrating on statistical methods for

audits of healthcare providers. He works as a "friend of the court" statistical advisor for judges several times annually; also, as a statistical advisor to providers under audit if there is reason to believe that the government contractor is misusing statistical methods, which sadly happens quire often. He has also been working since 2019 with Dr. Piaomu Liu, tenured last year at Bentley University. Piaomu got her Ph.D. in Statistics from USC in 2016 working with Edsel Pena. They published a paper last year: Edwards, Liu, and Delage (2023) "Model-Based Stratification of Payment Populations in Medicare Integrity Investigations". *Survey Methodology* **49(2):** 607-626. They have another paper in the works; Piaomu is speaking about it at the Joint meetings in Oregon. Don's ultimate goal in these activities is to drag the government, kicking and screaming, into the 21st century: currently the government contractors do not use the computer to its full capabilities.

Karl Gregory taught STAT 714, Theory of Linear Models, for the first time in the Fall and enjoyed inviting all the students in the class to his house for a Thanksgiving celebration! He taught STAT 516, Statistical Methods II, for the first time in the Spring semester, making it a year of new course prep (much learning)! He continued supervising his PhD students Qinyan Shen and Le Chang and has just begun supervising PhD student Mohiuddin Ibn Shafique. He is currently working on a revision to a paper with Qinyan Shen and colleague Xianzheng Huang on post-selection inference for logistic regression when the responses come from pooled testing data. With Le Chang he is working on inference after the building of a regression tree when the response is multivariate. Mohiuddin Ibn Shafique's dissertation appears to be moving in the direction of time series! Dr. Gregory is also collaborating with Dr. Dan Nordman of Iowa State University on a project entitled "Least angle regression inference". Dr. Gregory enjoyed giving invited talks at the 2023 conference of the International Indian Statistical Association at the Colorado School of Mines and at CMStatistics 2023. In the coming Fall, he will take a sabbatical semester during which he plans to develop collaborations with Dr. Liz Will in the Arnold School of Public Health, whose research focuses on early development of children with Down syndrome.

Brian Habing, Associate Professor and Undergraduate Director**,** finished his 26th year at USC and continues to love teaching and doing research in Item Response Theory (IRT). His biggest project this year was leading the group developing the new Data Science B.S. and Data Analytics B.S. undergraduate degree programs. These degrees are joint with the Department of Mathematics and Department of Computer Science and Engineering, and he will serve as the director of those programs as they start accepting students this Fall. Research-wise he is directing the dissertation research of Brian Harrold and co-directing that of Geophrey Odero with Christine DiStefano in the College of Education. Brian also served as Undergraduate Director for the Statistics Department and co-chaired the University Committee on Curricula and Courses this past year. (He is especially glad that the C&C Co-chair position was only for one year!). He continues his work with the final students in our Applied Statistics graduate programs, as an associate director for the National Institute of Statistical Sciences, and as an associate editor for Applied Psychological Measurement. Outside of school, Brian enjoys serving as a Scout leader and working on the native plant garden he started during COVID.

David Hitchcock served a one-year term as interim department chair in 2023-24, just after finishing a rewarding 7-year stint as undergraduate director. He'll now be starting a new role as graduate director in August 2024. David is currently working on research with Ph.D. students Tong Shan and Jedidiah Lindborg, after the recent graduations of his Ph.D. students Shan Zhong, Ryan Pittman, and Bridget Manning. He has ongoing research collaborations with members of the US Forest Service and Clemson University's bioengineering and water resources engineering units. He's recently taught courses in time series, Bayesian statistics, and a new and innovative course on the history of statistics. Outside of work, David enjoys reading, tennis, and travel. He's now a USC parent too, since his oldest son Matthew just finished his freshman year!

Professor **Yen-Yi Ho** was awarded an R21 grant from the National Cancer Institute (NCI) for the years 2021-2023. The grant aimed to support the development of innovative machine-learning algorithms for analyzing genomic data. With this funding, Dr. Ho had the opportunity to engage in serious research and establish collaborations with other NCI grantees inside the U505 submarine at the annual grant meeting in Chicago. Dr. Ho's research team is comprised of five bright and talented graduate students: Zichen Ma (graduated 2021), Zhen Yang (graduated 2022), Wenda Zhang (graduated 2022), Anderson Bussing (finishing 3rd year), and Shuyi Yang finishing 3rd year). Together, they have published papers, contributed software packages on CRAN and GitHub repository, and provided tutorials for using their software (https://www.youtube.com/watch?v=tsmDzepHIVg). In 2023, Dr. Ho celebrated receiving tenure at a dinner organized by the College of Arts and Science. Outside of work, Yen-Yi enjoys BBQ, Taiwanese hotpot, making banana bread and playing games with her students.

Xianzheng Huang, Professor, proudly sent off two graduates, Qingyang Liu (May 2023), currently a postdoc at Texas A&M University, and Zehao Yu (May 2024), who started his new job at Goldman Sachs upon graduation. Their dissertations produced multiple manuscripts that have been published in reputable statistical journals or are currently under review/revision for publication. She continues to work with three other graduate students on a wide range of research topics including directional data, post-selection inference, heavy-tailed data, and network analysis.

The research interests of **Xiaoyan (Iris) Lin**, Associate Professor, lie in survival analysis, medical diagnostic accuracy analysis, graphical models, and neural networks. She, with her student, Yang He (USC PhD 2023), had adopted latent Gaussian graphical models to analyze the conditional dependence structure for discrete variables from survey data, wherein graphical Lasso prior, graphical spike-and-slab Lasso prior and their adaptive versions are applied for the regularization purpose. She, with another student, Yun Yang (USC PhD 2024), had extended diagnostic probit models for analyzing ordinal rating data and developed closed-form expressions for rater ROC curves. Her another student, Xin Zhi, is working on survival analysis for arbitrary censored data. They aim to apply Bayesian Additive Regression Trees (BART) to model the discrete hazard. In the near future, she plans to lead students to apply neural network techniques to survival analysis.

Jim Lynch and his wife Peggy are adjusting and getting settled in State College. They are also great; they became great grandparents on November 30, 2023. He visited Columbia, SC in February 2024 and was able to see several faculty members in the department. He hopes to visit again sometime in 2025. Dr. Lynch is still active working with three different groups on research.

Ting Fung Ma, Assistant Professor, finished his second year at USC right after earning his PhD in Statistics from the University of Wisconsin-Madison. He lectured STAT 509: Statistics for Engineers and modernized STAT 519: Sampling. Ting Fung continues his research in approximate and scalable inference, methodological works and computational techniques for data with complex dependence and heterogeneity, such as spatial and spatiotemporal data. He works closely with researchers from various disciplines in collaborative research and consulting projects. He is mentoring a PhD student in Statistics, Yizhou (Jake) Cai. Their joint work with other collaborators, *Hierarchical Dependence Modeling for the Analysis of Large Insurance Claims Data*, was accepted by the *Annals of Applied Statistics*. A student from the Honors College completed a senior thesis with him, focusing on predicting NFL success. He was pleased to see his papers published in both Statistics and interdisciplinary journals, such as *Journal of the American Statistical Association*, *Biometrics*, and *Journal of Environmental Management* over the past two years in the Department. He submitted a National Science Foundation (NSF) collaborative proposal with principal investigators Joshua Cooper (USC Mathematics) and Laila Elsherif (University of Tennessee, Memphis) as co-principal Investigator. Ting Fung was invited to present at Clemson University, the International Chinese Statistical Association (ICSA) Applied Statistics Symposium at Nashville, and Joint Statistics Meetings (JSM) at Portland this year. He also serves as the Secretary/Treasurer of the American Statistical Association (ASA) South Carolina Chapter.

Amanda Murphy, Senior Instructor, continues to teach multiple sections of non-major introductory statistical courses for the undergraduate students at the University. Amanda continues to teach STAT 201: Elementary Statistics and STAT 206: Elementary Statistics for Business; and recently starting teaching STAT 110: Introduction to Statistical Reasoning. After the completion of the Spring 2024 semester, Amanda has taught over 5,000 undergraduate students at USC. In addition to teaching 3 to 4 classes each semester, she has performed many service duties for the Department and is looking forward to starting her new service duty at the university level as a member of the Academic Responsibility Committee (starting Spring 2024 and going through Fall 2027). In the Spring 2024 semester, Amanda won one of the College of Arts and Sciences Undergraduate Teaching Award for Professional Faculty (Spring 2024) after putting together a nomination file at the suggestion of and with the support of Dr. Hitchcock (interim department chair Fall 2023 – Spring 2024).

Geophrey Odero, Senior Instructor, finished his 7th year at USC. He has been teaching STAT 110: Introduction to Statistical Reasoning, STAT 201: Elementary Statistics, and STAT 205: Elementary Statistics for Biological and Life Sciences. Geophrey has been teaching the highest number of students per academic year in our department. Geophrey is also a PhD candidate (Educational Research and Measurements) and is expected to complete his studies in 2025.   Recently, Geophrey attended the annual meeting of the Southeastern School Behavioral Health Conference, Myrtle Beach, South Carolina: *Does Teacher Race Affect Ratings for Racial Minority?* Examining The Behavioral & Emotional Screening System (BESS).   This year, he co-authored a book chapter: *An introduction to machine learning for educational researchers*. Chapter in Machine Learning in Educational Research (M.S. Khine, Ed). Springer: Germany. Currently, another co-authored article (in press): *Socioemotional/Behavioral Screening: Does Teacher Race Affect Ratings for Students of Color?*

Beth Orlik has been with the department for over a year now as Administrative Assistant. She moved to South Carolina from Oswego, Illinois in September 2022 with her husband Brian when a new position with his company brought them to Columbia. Beth enjoys spending time with her two kids, hiking with her dog, and exploring the different areas of South Carolina.

Edsel Peña is happy to be back to the department since August 2023, after a three-year stint as Program Director at the Division of Mathematical Sciences of the National Science Foundation, and to be back to doing teaching, research, and service (he's currently actively working on research papers that were put on hold while he was at the National Science

Foundation). Edsel gave colloquium talks at our department and at the School of Mathematical Sciences at Clemson University; gave an invited talk at the International Conference on Statistics and Data Science (ICSDS) in Lisbon, Portugal in December 2023; and gave a Distinguished Lecture at the Department of Mathematics and Statistics of Georgia State University in Atlanta, Georgia last April 2024. Last May, Edsel learned about two honors: He is one of the newly elected fellows of the Institute of Mathematical Statistics (IMS). The new fellows will be recognized this August in the Bernoulli/IMS World Congress in Bochum, Germany. And he is the recipient of the Koh Lectureship in Science of the Philippine-American Academy of Science and Engineering (PAASE). Because of this award, he will be delivering a lecture in the annual conference of PAASE to be held in four venues in the Philippines this July. In exciting personal news, Edsel became a first-time grandfather in April 2024, grandpa to a baby boy Julian Miles, son of his daughter Judith and son-in-law Nick!

Wilma Sims, Senior Instructor, has been with the department for 16 years (27 years if you include her time in the graduate program and as an adjunct instructor). She spent 11 years managing the Statistical Consulting Laboratory (Stat Lab), but after the Stat Lab closed in the summer of 2019, she moved into a more administrative position, which included serving as the scheduling and service course coordinator. Wilma became a full faculty member in 2024 and continues to function in both administrative and instructional roles for the department.

John Spurrier and his wife Pam are well and live happily in Swepsonville, North Carolina. They are celebrating their 50th anniversary in 2024. They interact with college students by volunteering with the UNC Wesley Foundation. John's latest publication is the comedy book "What Ever Happened to Little Jack Horner?". It looks at what might have happened to nursery rhyme characters as they became senior citizens. Pam is busy creating and selling art.

Joshua M. Tebbs finished a four-year term as Chair of the Department of Statistics, and, on the same day, he finished a three-year term as Editor of *American Statistician*. He is looking forward to returning to his "normal" life as a university professor after these extraordinary assignments which ran concurrently. His research continues to be funded by the National Institutes of Health on two R01 grants with colleagues at University of Nebraska, Yale University, and Harvard University.

Dewei Wang completed a two-year term as the graduate director from 2022 to 2024 and is now eager to refocus on his research. Since our last published newsletter, he has graduated two PhD students and is currently advising Yizeng Li and Qingyuan Hong, who are actively developing new statistical methods for pooled biomonitoring data. His research has been published in journals such as Bernoulli, Biometrics, JASA, and Statistics Sinica, with additional work under review. He has also completed his NIH R03 project and an R21 collaboration, and he is looking forward to applying for more grants.

Lianming Wang had another successful academic year. He continued his research in survival analysis and biomedical research. He published three research papers at Statistics in Medicine, Lifetime Data analysis, and Journal Cardiovascular Development and Disease in 2023. He has one paper accepted by Biometrika and four manuscripts under review in 2024. He is serving as a co-investigator on an NIH funded project with Dr. Wayne Carver from the Department of Cell Biology & Anatomy at USC. His PhD student Yuchen Mao just graduated this summer and will work as a postdoc in National Institute of Child Health and Human Development.
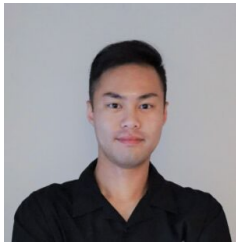
David Weaver, Instructor, finished his second year of teaching in the Department. He teaches STAT 206 (Business Statistics, including an Honors College section) and STAT 112 (Statistics and the Media). For STAT 206 (Honors), David took advantage of the Fed on Campus program, where the Federal Reserve will have senior business economists visit the classroom to discuss the economy and business statistics. With regard to research, David recently published a paper "The mortality experience of disabled persons in the United States during the COVID-19 pandemic" in *Health Affairs Scholar*. The paper found that a sizeable percentage of the excess deaths in the US during the pandemic were among individuals with severe disabilities.
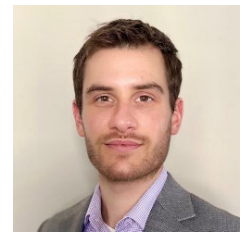
New Faculty and Staff

We are thrilled to be welcoming three new assistant professors to our department in August 2024.

Dr. Shanghong Xie joins us from Southwestern University of Finance and Economics in China, where she has been a faculty member the last two years. Before that, Shanghong was at Columbia University, where she earned her Ph.D. in Biostatistics in 2019, working with Yuanjia Wang, followed by a two-year postdoc at Columbia under Prof. Wang and our old friend Todd Ogden! Shanghong's research interests include statistical learning, network analysis, graphical models, precision medicine, functional data analysis, causal inference, neuroimaging, among other areas. Shanghong enjoys hiking, playing tennis, and music outside of work.

 Dr. Yuexuan Wu arrives from Seattle where he has spent two years as a Biostatistics postdoctoral scholar at the National Alzheimer's Coordinating Center (NACC), supervised by Prof. K.C. Gary Chan and a Data Science Postdoctoral Fellow at the eScience Institute at the University of Washington. Yuexuan earned his Ph.D. in Statistics at Florida State University in 2022 under Anuj Srivastava. Yuexuan's research interests include medical image analysis, shape and functional data analysis, computational neuroscience, and causal inference. Outside of work, Yuexuan enjoys playing soccer and exploring nature trails --- hobbies he looks forward to continuing under the sunny skies of South Carolina.

Dr. William Consagra joins us from Boston, where he has done a two-year postdoc at Harvard Medical School with Yogesh Rathi. Before that, Will earned his Ph.D. in Statistics from the University of Rochester in 2022 under Xing Qiu and Zhengwu Zhang. Will's research interests include computational statistics, imaging, functional data analysis, deep learning, and computational neuroscience, among other topics. Outside of work, Will enjoys reading, exploring the outdoors and spending time with his wife, a native South Carolinian. He is also a huge college football fan and is eagerly awaiting his first SEC Saturday gameday experience.
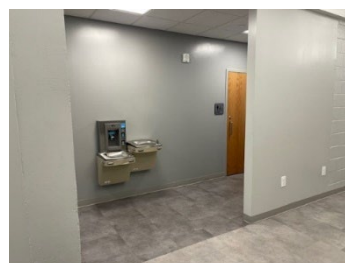

The New LeConte College

The LeConte College renovations were completed in the fall of 2022. Faculty, staff and students have been enjoying the updated classrooms and offices.
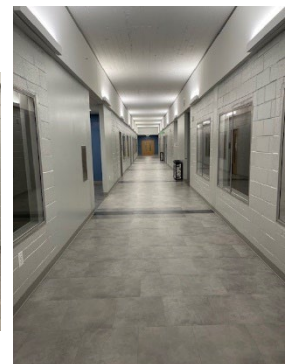

Our large classroom for colloquia and STAT 201 classes (with seats for 72 students)

Main Office with new mail cabinet

Spiffy new restrooms, a huge improvement from the old LeConte

Main second-floor hallway with raised ceilings

Alumni News

Megan Mocko (BS '99, MS '01) is a Lecturer of Business Statistics at the Warrington College of Business at the University of Florida. Megan just received the Warrington's Undergraduate Teaching Award!

Pasha Maher (BS in Stat and Math '13) is a founding partner at Stiegler EdTech. This program provides training and a clear pathway for people from underrepresented communities to enter technology careers. So far, 200 graduates have gone on to well-paying jobs, and the program has expanded nationally.
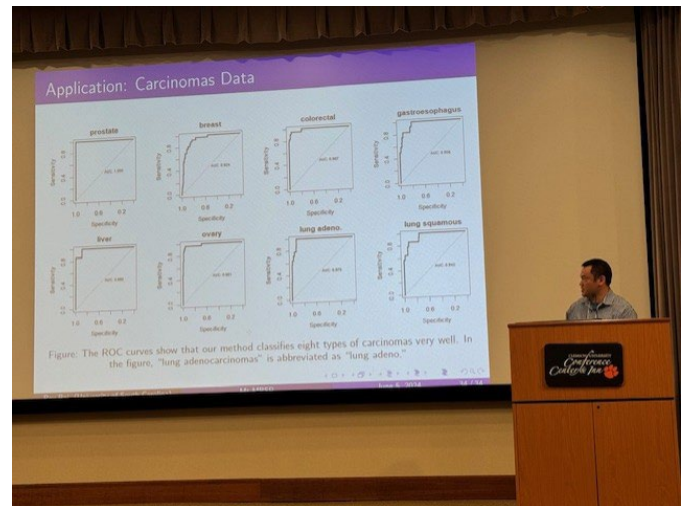

Kiley Hurst (BS '20), a Research Assistant at Pew Research Center, has published new research about views on gun violence in school. [19% of K-12 parents extremely worried a shooting may happen at school | Pew Research Center](#)

Nick Tice (BS '20, MS '22) who is now working his dream job as a Football Analytics Assistant for the Arizona Cardinals! Nick provides insight into the sports analytics profession and how to increase the odds of success. [Statistics graduate scores dream job with NFL team - College of Arts and Sciences | University of South Carolina](#)

Graduate students enjoying pizza with Dr. Ho at the 2024 ENAR meeting in Baltimore

Dr. Ray Bai speaking about his research at the 2024 SRCOS meeting at Clemson

Edsel Peña and David Hitchcock at SRCOS 2024 with Ph.D. students Yizeng Li and Sijian Fan

A great USC Statistics showing at SRCOS 2024 - from left: Harvey Villaneuva (undergrad stat major), Dr. Edsel Peña; Kami Meier (undergrad stat major); Dr. David Hitchcock; Megan Mocko (USC Stat B.S. 1999 and M.S. 2001); Ph.D. student Yizeng Li

-

2023 Thanksgiving Dinner at Dr. Gregory's house

Graduating students playing games at Dr. Ho's house

Dr. Ho with her research team

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. To donate, please go to [Direct Your Gift - University of South Carolina (sc.edu)](sc.edu) and use a keyword search for any of the 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.

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).

Data Science and Analytics Fund

This fund will support opportunities for undergraduate students in data science and data analytics (Account A32795).

Alumni and friends, please send us updates!
https://sc.edu/study/colleges_schools/artsandsciences/statistics/alumni/index.php