

Department of Statistics

Newsletter

Summer 2019



Greetings from the Department Head

Dear Friends of the OSU Statistics Department,

I hope you enjoy hearing about the recent happenings in the Department. A great big THANK YOU goes to our newest full professor, Carla Goad, for doing an outstanding job (as usual) on this publication. Her skills and expertise are invaluable to our mission.

It is with mixed feelings that I announce that I will be leaving OSU effective September 1, 2019. I will assume the duties of Chair of Biomedical Sciences at Rocky Vista University in the Denver area. It is a private osteopathic school and I'm grateful for the unique opportunity to interact with some outstanding scientists and help train future doctors. I'm excited

for this opportunity, but I'm sad to be leaving such a great place.

I came to the Department in August of 1986 with the intention of getting a master's degree and then a job. Quickly things changed and I haven't lived anywhere but Stillwater since. So after 33 years, saying good-bye is difficult. With the help of an outstanding faculty, we've accomplished some great things in the Department, and I believe we are on track to move to even greater heights in the future.

I want to thank the current faculty for all of their support. They have made my job very easy. I am also grateful to the past faculty, most of whom I consider mentors, for sharing their knowledge and wisdom, though at times it didn't necessarily sink in. Especially important to me were Linda Young, Leroy Folks, Bill Warde, Larry Claypool, David Weeks, and Bob Morrison. These people helped shape me, as I'm sure they did the same for many who are reading this newsletter.

I am honored to be associated with this great department and I hope to keep in touch with all of my friends and acquaintances in the future.

Mark

The faculty and staff of the Statistics Department wish Mark and Amy the very best as they start a new chapter in Denver. Thank you, Mark, for your friendship, leadership, and humor. You will be greatly missed.

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- Vik Family Awardees
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- Online Degree Program Recognition
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Faculty & Staff Notes

Meet our newest faculty member, **Dr. Pratyay Rudra!**



In Fall 2018 we welcomed a new member to the Department, Dr. Pratyay Rudra. Pratyay joined us after spending three years in a biostatistics post-doc position at University of Colorado -

Denver. Prior to that he came to the U.S. to study in 2010. He spent five years at University of North Carolina Chapel Hill completing his graduate work. Pratyay's wife, Sreemala, is a research fellow for the Construction Science Department at OSU. Pratyay and Sreemala both enjoy playing tennis and have joined the Stillwater Tennis Association. They enjoy traveling and wildlife photography.



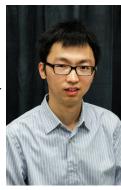
Effective July 1, 2019, Carla Goad was promoted to Professor of Statistics. She is the faculty coordinator for undergraduates and works closely with staff advisor, Cara Brun. Carla

is active as a Girl Scout leader. Both she and Dave are volunteers in their church. Her son. Michael works as an engineer for Boeing. He and his wife, Leslie, live in the OKC area. Her son, Andrew, works for an architectural firm in the KC area. Daughter Elizabeth will be a high school senior this fall and is spending this summer as a counselor at Girl Scout camp.

After Mark Payton's departure for Colorado later this summer. Mindv McCann will serve as Interim Department Head, and Josh Habiger will be the Graduate Coordinator.

Ye Liang was

awarded a grant from OCAST for developing and validating decision support algorithms for early detection of diabetic retinopathy using big electronic health records data. He delivered an invit-



ed talk in the international conference on Small Area Estimation, Surveys and Official Statistics in Shanghai, China. Two of his advisees graduated in 2018: Youngjun Chae (MS) and Shangyuan (Sean) Ye (PhD). He coached his daughter Chloe's U6 soccer team in his spare time where he enjoyed the role that is different from a professor.

Professor Emeritus Lerov Folks lives in Stillwater in the house that he and his late wife, Sue, designed. Recently he's been overseeing some exterior work on the home. Our rainy weather has caused a few delays. He's traveled to Iowa State University (his alma mater) in the last couple of years and is amazed at the changes there.



Josh Habiger and Pratyay Rudra participated in the Stillwater Tennis Association's George Berry Memorial tournament in June at Couch Park. There were more than 30 participants. Habiger and Rudra stood out as the top doubles duo among Statistics Professors from OSU!

Staff Spotlight: Meet Cara Brun!

"I am enjoying my third academic year as the Statistics/ Computer Science advisor. I grew up in Stillwater and played in the library fountain as a young child. I have a BS in Second-



ary Education and MS in Mathematics from OSU, and taught in Oklahoma public schools for six years. My favorite part of advising is meeting such wonderfully diverse young adults with incredible academic talents. When not helping OSU students, I like to ride my bicycle in gravel road events with my husband, Ken, in Oklahoma and Kansas, and to venture to other states in the summer such as Missouri and Minnesota to discover new riding paths. I have three lovely children and three lively grandsons who add a lot of joy and spice to life."

Her favorite quote is from George Carver Washington: "No individual has any right to come into the world and go out of it without leaving behind him distinct and legitimate reasons for having passed through it."



Adam Molnar completed his fourth year as an OSU assistant professor. His major project was introducing co-requisite math support to STAT 2013. a directive from the statewide Regents. He

also traveled to San Marcos Texas, Orlando Florida, and State College Pennsylvania for presentations about aspects of undergraduate teaching.

In August 2019, Mindy McCann and Carla Goad will have been at OSU for 25 years! Wow! That was fast!" - clg

CAS Outstanding Alumni and Hall of Fame

In 2015 the College of Arts and Sciences began an annual recognition of outstanding alumni from each of the 24 departments in the College. Each department names one of their alumni for this recognition. From among those 24 alumni, the College identifies two or three outstanding individuals for induction in the CAS Hall of Fame. The Statistics Department was proud to name Dr. Linda J. Young as Outstanding Statistics Alumnus in 2018. The Department was delighted to learn that Linda was also selected by the College as one of the two Hall of Fame inductees for 2018. Dr. Franklin Wicks (Chemistry), was the other inductee.

Linda received her award from Interim CAS Dean Dr. Jeanette Mendez (pictured at right) at the September 21, 2018, Hall of Fame Ceremony held in the Wes Watkins Center.



Linda Young received her PhD from the Statistics Department in 1981 as a student of Dr. Leroy Folks. Linda was hired as a faculty member and stayed at OSU until 1990. She spent several years at the University of Nebraska and then onto the University of Florida. She has served as the Chief Mathematical Statistician and Director of Research and Development for USDA National Agricultural Statistics Service (NASS) in Washington, D.C. since 2013.

More about Linda's impressive career can be found on the CAS Alumni Spotlight webpage: <u>https://cas.okstate.edu/news/alumni-spotlight/1693-hall-of-fame-member-and-statistics-trailblazer</u>

The Department is especially proud that in the first four years of the Hall of Fame program, the Statistics Department has had two Outstanding Alumni named to the CAS Hall of Fame. In 2017 Dr. Gaute Vik was inducted to the CAS Hall of Fame.



During her visit to Stillwater, Linda presented an engaging seminar, "Web Scraping and Capture-Recapture: Can They Really be Used to Produce Official Statistics" to the Department. Later that evening, during the Hall of Fame Ceremony she delivered a lively address to the audience and demonstrated to all why she was selected as our Outstanding Alumnus.

At the Hall of Fame Ceremony Linda was accompanied by her daughter, RaQwyn Young, and cousin, Betsy Cornett. Representatives from the Department were doctoral students, Josephine Akosa and Meghan Sealey, and faculty members, Mark Payton and Carla Goad.



Pictured left to right: Betsy Cornett, RaQwyn Young, Pistol Pete, and Dr. Linda J. Young

309 Renovation—Part 1

In the 1970's Math Sciences 309 was partitioned into a main office for the Division of Mathematical Sciences and other smaller rooms. The concept of a Division office "never really worked," as long time Department Head Leroy Folks said, and eventually the Division offices were vacated. The Department was left with a long narrow kitchenette area, a tiny lounge in which no one ever 'lounged' and only rarely 'lunched', and three rooms left for offices or storage. And, as storage areas tend to do, they accumulated cast-off furniture and other unwanted items. The cost for the Department to renovate this area was simply too large for the Department to undertake.

In June 2018 former CAS Dean Bret Danilowicz agreed to fund the renovation of the 309 complex prior to his departure to Florida Atlantic University to become Provost and Vice President for Academic Affairs.





Here are a few "before" pictures. The yellowing of the light fixtures was either due to age or the fact that faculty and staff could smoke in the building years ago or both.



Demolition began in November 2018.

Secretly, we all wished to take a sledge hammer to this.

An asbestos abatement also had to be done.





309 Renovation—Part 2



After approximately two months, the construction was complete. The furniture was added in late April. The goal for the new space is to create a comfortable space for breaks, meetings, presentations, or seminar guest receptions. The tables in this room in the pictures on the right are facing a blank wall which we hope to equip with a HD screen and other technology in the near future. The tables can be configured in multiple ways giving this room great flexibility in its usage. This room was dedicated on May 3, 2019, photos below.







(above) Department Head, Mark Payton, addresses the department. Thanks to all who helped make this happen!

(right) Faculty, staff, and graduate students



SAS and R Programming

In Fall 2018 Carla Goad and Josh Habiger co-taught the new SAS and R Programming course. SAS has long enjoyed a strong international reputation as statistical programming software. For many years SAS Programming has been offered as a one-hour class by the Department. The evolution of the open source R software has resulted in a greater demand for R programming skills also. Thus, they developed a new three hour course. In this course, class meets twice a week. The first eight weeks are devoted to SAS with Dr. Goad, and the second eight weeks are devoted to R with Dr. Habiger. This three hour course has been added to the undergraduate and graduate statistics degree requirements. Additionally this course is one of the degree requirements for the online Applied Statistics Master's Degree. There are also eight-week one-hour options for each of the individual programming languages for students in fields of study outside of statistics.

The Online Masters of Science in Applied Statistics

The Department has been offering a completely online Masters of Science in Applied Statistics since 2015. This degree differs from the MS in Statistics in that the theoretical courses, such as Theory of Linear Models I and II, are not required. Learn about this degree at: <u>http://</u> <u>statistics.okstate.edu/2-uncategorised/27-msappstat</u>



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For 2018—2019 Affordable Colleges online ranked our program #2 on their list of Best Online Master's Degrees in Statistics. Read the AC article.

Best College Reviews ranks OSU #5 on their list of Best Master's in Applied Statistics online programs in 2018. Read the BCR article.

New Statistics Bachelors Degree Options and Statistics Minors Approved

The Department is excited to announce three new Bachelor's degree options for our students. All options have the same 25 core hours as the original Bachelor's degree with major electives specified for each of these options. The Actuarial Science option includes courses validated by the Society of Actuaries' Validation by Educational Experience (VEE) certification. The Data Science option directs students to selected Management and Information Systems courses to pair with their statistics background. By successfully completing the Business Essentials option, students can apply to the MBA program, and once accepted, they can complete their MBA in one year after completing their statistics degree.

Two new undergraduate statistics minors have also been approved. In addition to the 25 hour minor in Statistics, there is now a 15 hour Applied Statistics minor and an 18 hour Data Science minor. Both new minors do not require calculus.

All five programs were recently approved by the Oklahoma State Regents for Higher Education.

Student News

Doctoral student **Xiaowei Hu** won a Women's Faculty Council Research Awards. Xiaowei was nominated by her doctoral advisor, Dr. Lan Zhu. After graduation in May, Xiaowei and her family moved to the east coast. She has accepted a post-doctoral position as a research associate at the University of Virginia.

The generous donation of Statistics alumnus Gaute Vik and his family has provided for two financial awards to incoming Fall 2018 graduate students, **Damilola Adeyemi** and **Huizi Wang**. Two \$1000 awards were presented to two graduate students in the program in December 2018. The Vik Family Outstanding Graduate Student award was presented to **Josephine Akosa**, and the Vik Family Outstanding Graduate Teaching Assistant Award was presented to **Meghan Sealy**.

In April 2019, the following students were nominated for Mu Sigma Rho honor society membership, graduate students: John Adams, Tianyu (Chase) Cao, Meghan Sealey, Shuting (Tina) Shi, and undergraduate student, Yikuan Chen.

The Robert D. Morrison Award for Outstanding Masters Graduate for 2018 was awarded to **Biting (Justine) Zhou**. Biting is continuing her doctoral studies in statistics at OSU. In August 2018, Biting had a health baby boy, Michel.

The Carl E. Marshall Award for Outstanding Doctoral Graduate for 2018 was awarded to Josephine Akosa. Josie accepted a position with the University of Notre Dame as a Visiting Assistant Professor in the Department of Information Technology, Analytics, and Operations. In the Fall of 2018, Josie was in the "student spotlight" in the CAS produced video: https://cas.okstate.edu/news/student-spotlight/1668-ghang-native-loves-stillwater-and-study-abroad-experience



Interim CAS Dean Dr. Jeanette Mendez congratulates Carson on his academic successes and being named the Outstanding Senior for the Department of Statistics.



In December 2018 Ru Wang received the Outstanding Poster Presentation award at the Harold Hamm Diabetes Center Research Symposium in Oklahoma City.

For the complete article, go to <u>https://news.okstate.edu/articles/business/2018/</u>student-wins-award-for-poster-presentation.html

Biting Zhou, Meghan Sealey, and Qianbo Sun were part of a team that took 3rd place in the 2019 OSU Health Data Shootout Competition!

For the complete article, go to https://news.okstate.edu/articles/business/2019/ students-offer-opioid-epidemic-solutions-during-thirdannual-health-data-shootout.html? fbclid=IwAR1mSz3 97dXqT frJL7ILQd29bmUB8z64v mrgb-oRmVAd7Jul5iNw_hVHY

Carson Cole Named 2019 Outstanding Senior in Statistics

At the College of Arts and Sciences Awards Banquet in April, Carson Cole was honored as the Outstanding Senior in Statistics for 2019. Carson is earning three BS degrees in three areas: Statistics, Economics, and Mathematics.

Carson credits Dr. Brenda Masters's class, "Elementary Statistics for Business and Economics" with initiating his interest in statistics. He had been a chemical engineering major and shortly thereafter changed his major. Since then, Carson has worked as a tutor for the Statistics Learning and Instructional Center, and has worked as a grader for both the statistics and mathematics departments. He has also done statistical analysis of the 1940s census data as part of a research project with Dr. Holly Karibo, OSU Dept. of History faculty member. Additionally, he has been inducted into Mu Sigma Rho.

Carson has had a government internship in OKC and will go to work full time there after graduation. One week after graduation in May, he married his fiancée, Nicole Judkins, whom he started dating while they were both students at OSU. Both Carson and Nicole will have matching Outstanding Senior in Statistics awards since Nicole was our 2018 Outstanding Senior.

Also at the CAS Awards Banquet, scholarship awards were announced. Malina Lemmons, Psychology and Statistics double major, was awarded the Fourjay Foundation Scholarship, and Kyle Alvarez, Mathematics and Statistics double major, was awarded the Nancy Charlene Malkenhorst Scholarship. Kyle is pictured below center with Interim Dean Dr. Jeanette Mendez and another scholarship recipient, Miranda Raney.



OSU Homecoming 2019

For complete Homecoming information, see <u>http://</u> www.orangeconnection.org/ homecoming

If you are planning to visit Stillwater for Homecoming (or any time), please let us know. We'd love to see you!

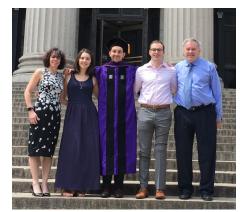


Alumni Update



Jana Alford (MS 2018) and her husband, Fred, had a baby girl, Ann, in September 2018. Jana is employed by the Department as lecturer. She also over-

sees the personnel and scheduling of SLIC.



Laura P. Coombs (PhD 2000) is currently the Vice President of Data Science and Informatics at the American College of Radiology. She oversees the Data Science Institute whose goal is to help bring artificial intelligence (AI) applications to the radiology profession to provide improved medical care. Her two sons, Tommy and Billy, both recently graduated from law school and are now are practicing at the same law firm in New York City. Daughter Rachel is an English major at William & Mary. Her husband Tom recently retired from the CIA and has returned to work as a consultant.

Sarah (Doughty) Markes (BS 2009) and her husband, Jared, welcomed a baby girl, Laura, in January. Daughter Hannah is a proud big sister.

After graduating OSU, **Tamanna Hossein-Kay (MS 2015)** moved to California and has been working for Loan Depot, a non-bank mortgage lender. She started as a Business Analyst and since then has transitioned to the role of Data Scientist. She is going back to school in the Fall to pursue a Masters in Computer Science at UCI.



Heather Orr (BS 2009) works for the Office of Institutional Research & Information Management (IRIM) at OSU. In 2018 Heather adopted her dog Lumos, and together they completed the ten-month OSU Pet Therapy program and graduated in June 2019. They are an official team in Pete's Pet Posse. The photo above is from their "Barkalaureate."

Crystal (Turner) Drumm (BS 2008)

is celebrating 5 years at ONE Gas (parent company of Oklahoma Natural Gas) as a Rates Specialist this May. On April 20, 2019, she married ("the very lucky") Austin Drumm. Austin is a K-state graduate and architect in Tulsa. The Drumm's were honeymooning in Australia for 2.5 weeks at the end of June and into July!

After five years of being stationed at Scott AFB, Illinois (just to the east of St. Louis), **Chip Litchfield (BS 2008)** and family moved to Washington D.C. Late in 2018, Chip was selected for the United States Air Force Strategic Policy Fellowship. Most likely, he will work outside of the Air Force with another government agency learning how it conducts its operations. The Litchfield's moved to the DC area in early June and expect to be there for two years. His son, Ray will be heading off to OSU in the fall and will major in statistics!



In May 2018, **Tim Coburn** (PhD 80) gave up administrative duties as Director of the School of Energy Economics, Policy and Commerce at The

University of Tulsa. At the time he was also Director of the Master of Science in Business Analytics in the Collins College of Business and the Director of the Master of Energy Business. For the past year he has been a "regular" professor: Professor of Energy and Operations Management with a joint appointment in the School of Finance. Operations Management, and International Business, and the School of Energy Economics, Policy and Commerce. For the coming academic year (2019-20) he will be on sabbatical at Colorado State University, serving as a visiting research associate at the Energy Institute (https://energy.colostate.edu) and teaching in the statistics department and the systems engineering department. He will continue to serve on the Energy Statistics Committee of ASA, which is an advisory/ consulting group that works on behalf of, and in conjunction with, the US Energy Information Administration.

Youngjun Chae (MS 2018) is working in the Media Data Science Team at Nielsen Korea since graduation in 2018. His job duty is analyzing PC and mobile user behavior data.

Lindsey (Teter) Hurst (BS 2018)

has had a busy year: first graduating in May 2018; then starting a new job a week later. In September 2018 she married Bryce Hurst. She just completed her first year as a Junior Program Engineer at CareATC, a company providing employers with wellness and healthcare programs. Lindsey says she has learned a lot in her first year and really loves her job.



Donate to the Department

The Department is able to make student awards annually based on the generosity of our alumni and other donors. We appreciate your support. When OSU Foundation calls, you can specify where your donation dollars go.

Friends and Alumni who wish to make a financial gift to the Department of Statistics at OSU should go online to <u>http://statistics.okstate.edu/donate</u>. Donors can choose from several funds. Among them are the following fund accounts:

Statistics Department Fund # 22-43500

The Statistics Department Fund supports guest speaker activities.

P. Larry Claypool Undergraduate Statistics Scholarship # 22-52900

The P. Larry Claypool Undergraduate Statistics Scholarship is awarded to an outstanding undergraduate student.

Carl Marshall Award # 22-41100

The Carl Marshall Award is presented to the outstanding Ph.D. graduate.

Robert D. Morrison Award # 22-80500

The Robert D. Morrison Award is presented to the outstanding M.S. graduate.

David L. Weeks Award # 22-32100

The David L. Weeks Award supports an outstanding statistics graduate student in Experimental Design.

J. Leroy Folks Award # 22-56800

The J. Leroy Folks Award honors distinguished alumni of OSU Department of Statistics.

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