

In Memoriam: Dr. Arnold Stromberg Remembered for Excellence in Statistics Scholarship, Leadership

By Richard LeComte

LEXINGTON, Ky. -- Katherine Thompson remembers Dr. Arnold Stromberg, former chair of the University of Kentucky's Dr. Bing Zhang Department of Statistics and David M. Allen-Richard L. Anderson Endowed Professor, as a leader who was always ready to help students and faculty with a quick analysis.

"I knew people he had touched, but I didn't realize how many people he had impacted in his career," said Thompson, associate professor of statistics in UK's College of Arts & Sciences. "It wasn't just the students. He helped assistant professors from other colleges working toward tenure by providing statistical support on manuscripts so they could be published. If he got that e-mail, he was up at midnight doing their analysis, no problem. He helped people who didn't have another source; not because he needed to, but just because he wanted to."

Dr. Stromberg, 63, died Sept. 17. He was born in Minneapolis and raised in West Lafayette, Indiana, where his father was a professor at Purdue. He earned a B.S. in mathematics at Stanford University in 1983 and a doctorate in statistics at the University of North Carolina at Chapel Hill in 1989. He joined the UK faculty in 1991 and served as chair from 2007 to 2019. He built a culture of alumni engagement and philanthropy that led to the renaming of the department after Dr. Bing Zhang in 2020, and he worked hard to bring unity and growth to his area.

"What he did day to day as a chair was absolutely incredible," Thompson said. "When faculty came in, he made sure to make us a part of the department and make sure that we were folded in, and he helped us in our own specialties and our own expertise. He was always looking for opportunities for everybody in the department and pursuing those opportunities as they came up."

He also cut a dashing figure on campus, where he took advantage of eco-friendly transportation.

"It was always fun to see this tall person with his white shirt riding his bike on campus," said Robin Cooper, professor of biology at UK. "He would wave and have a wonderful smile. It made my day seeing or interacting with Arny as he just had such a positive vibe about him. If I had a student with me seeing Arny on his bike, I would tell them, 'That is Dr. Arny Stromberg, and he is the best statistician one will ever meet as well as a super nice person to work with.'"

His scholarship earned him a position as a fellow of the American Statistical Association in 2017. "Perhaps the most coveted award for a statistician is being inducted as a fellow of the American Statistical Association," said David Allen, emeritus professor of statistics. "You must have professional accomplishments and service to the profession."

Dr. Stromberg's expertise lay in statistical bioinformatics, computational statistics and nonlinear models. He contributed to more than 100 journal articles, particularly ones involving a variety of topics in health care. He even contributed to a paper titled "The Effect of Personal Protective Equipment on Firefighter Occupational Performance." He also served the Commonwealth through the Kentucky Idea Networks of Biomedical Research Excellence grant, or KY-INBRE, which is a collaborative network of biomedical researchers in higher education institutions within Kentucky and is funded by the National Institutes of Health. He completed his dissertation under the noted statistician David Ruppert. Dr. Stromberg's original work was in robust estimation of nonlinear regression parameters, which showed his talent for both theory and high-level computations.

"Although the concept of parallel computing had been around since the 1950s, Arny was an integral part of a new wave of computational research in the 1990s that was taking advantage of the invention of local area networks, formally called Beowulf clusters, which we now take for granted," said William Rayens, Dr. Bing Zhang Endowed Department Chair. "When he joined UK in 1991, he was one of only a few statisticians who was employing parallel computing for efficient estimation in statistics. This foreshadowed his life-long interest in big data as well as his penchant for always being on the cutting edge of methodology."

In the late 1990s, Dr. Stromberg began to take an interest in collaborative research, and he emerged as a department leader in that area for over 20 years. For example, he helped Cooper receive a National Science Foundation grant in 1997.

"We were using novel approaches in quantifying synaptic transmission, which are still being used to this day," he said "It was always a pleasure to work with Arny and our co-advised graduate students. Arny just had a way to make challenging projects seem easy and was always so encouraging to students as well as helping junior faculty succeed."

Dr. Stromberg had more than 175 publications with colleagues at the University of Kentucky and throughout the nation. He also served as president of the Southern Regional Council on Statistics (SRCOS), chair of the Caucus of Academic Representatives of the American Statistical Association, and he frequently served on NIH review panels.

"Arny was a tireless advocate for the department and for statistical science," Rayens said. "It didn't matter where he was or who he was talking to, he would manage to say something about the value of statistics in collaborative research (offering his services), and how our department was just the 'best department in the world.'"

Dr. Stromberg is survived by his wife, Gretchen, and their four children.