

Renowned statistician George Box dies at 93

April 10th 2013



George E. P. Box, professor emeritus of statistics at the University of Wisconsin-Madison, passed away March 28 at his home in Madison at the age of 93.

Box founded the UW-Madison Department of Statistics in 1960 and served as chair until 1969. “He shaped the department for the first 30 to 40 years,” says current department chair Brian Yandell.

“There were various statisticians of sorts scattered around the university but there was no statistics department,” recalls Norman Draper, professor emeritus of statistics and a longtime colleague of Box. “And all these

separate statisticians – there were two or three in agriculture, for example – were glad to have this department started because it suddenly made statistics focused and available to all.”

Famous for saying, “All models are wrong, but some are useful,” Box emphasized the use of statistics to improve experimental processes. He was world-renowned for his work on optimizing experimental design with statistics and pushed his students and colleagues to consider the practical applications of statistical methods.

Best known on campus were the Monday night beer and statistics sessions Box hosted at his home for students and other researchers. The gatherings sparked lively discussions about how statistics could help solve research problems posed by speakers from a wide range of disciplines.

“Sometimes it would just be a good time, but other times it generated new research directions,” says Yandell. Former students have credited the sessions with teaching them as much or more than their classes.

Box described himself as “an accidental statistician,” which is also the title of his autobiography, publishing later this month. He first tackled statistics while in the British army during World War II, wanting to improve his experiments on the chemistry of poison gases.

After stints at North Carolina State University, Imperial Chemical Industries in London, and Princeton University, Box joined the Mathematics Research Center at UW-Madison in 1959 and founded the Department of Statistics in 1960.

Box authored multiple textbooks and developed several statistical tools, some of which bear his name: Box-Jenkins model, Box-Cox transformations, and Box-Behnken designs. He received numerous awards and honors, including a Vilas Professorship at UW-Madison and being elected a Fellow of the Royal Society. He served as president of the American Statistical Association in 1978 and the Institute of Mathematical Statistics in 1980.

With the late Bill Hunter, he co-founded the Center for Quality and Productivity Improvement in 1985 in the College of Engineering. Though he retired in 1992, Box continued to act as a consultant for members of the statistics and quality improvement communities.

Box mentored generations of students who have extended his influence far and wide and was known for his sense of humor, genial nature and compelling storytelling abilities.

“He was wonderful to be around,” Draper says. “He was a man who was full of ideas and very enthusiastic.”

Box’s life will be celebrated at a memorial service on May 5 at 2 p.m. at the First Unitarian Society Meeting House, 900 University Bay Dr., Madison. Additional details are in his full obituary.

On May 6, the statistics department will hold a Monday night session modeled after the ones Box used to host in his home. It will open at 4 p.m. in 1313 Sterling Hall with a few remembrances of Box, followed by a seminar by entomology student Jesse Pfammatter. There will be food and discussion in 133 SMI beginning around 5:30 p.m. after the talk. If you wish to attend the discussion session, please RSVP by April 26 to Denise Runyan.

Story by Jill Sakai, University Communications

George Box Obituary

October 18, 1919 — March 28, 2013

Shorewood Hills - George E. P. Box "Pel", age 93, died on Thursday, March 28, 2013 at home. He was much loved and will be missed by many. A celebration of his life will be held at 2:00 p.m. on Sunday, May 5, 2013, at First Unitarian Society, 900 University Bay Drive, Madison.

Pel was born in Gravesend, Kent, England in 1919. Born into modest means, both he and his brother Jack earned scholarships in order to attend the more elite public school in Kent. Pel began his scientific life as a chemist, publishing his first paper at the age of 19 on the activated sludge process to produce clean effluent. Understanding the dangers of fascism, he abandoned his education and enlisted in the army on the very first day he was eligible. During his six years in the army he eventually was sent to Porton Down Experimental Station to study the potential impact of poison gases.

George realized that only a statistician could get reliable results from experiments so he taught himself statistics and a career was born.

After the war, George worked at Imperial Chemical Industries for eight years, spending 1953, however, at North Carolina State where he met some of the pre-eminent statisticians of the day. After working again in England for a few years, he left ICI and went to Princeton University in 1956 to direct a statistical research group. George came to Madison in 1959 establish the University of Wisconsin's Department of Statistics in 1960 and retired as an emeritus professor in 1992, though he continued to contribute research papers and write books until his death.

George co-founded the UW Center for Quality and Productivity Improvement with William "Bill" Hunter in 1985. He wrote and co-authored major statistical books on evolutionary operation, times-series, Bayesian analysis, the design of experiments, statistical control, and quality improvement. George loved his students and was proud all their contributions. His last book, a memoir called, *An Accidental Statistician: The Life and Memories of G.E.P. Box*, is soon to be published by Wiley.

George received many honors, including being elected Vilas Research Professor of Statistics at the UW Madison in 1980, and a Fellow of the Royal Society, in 1985.

George is remembered for his long-running Monday Night Beer and Statistics sessions, held at his house and open to all campus researchers and students. He provided analysis and suggestions, and many students later said that they learned more from these sessions than from any classroom or textbook.

George had encyclopedic knowledge of song lyrics and almost every poem or verse he had ever heard. His favorite book, however, was *Alice in Wonderland*. We also remember his skits and songs such as "There's No Theorem Like Bayes' Theorem." We treasure him for his wit, modesty, kindness and warmth; his love of family and friends.

He is survived by his wife Claire Quist Box; his former wife, Joan Gunhild Box; their daughter Helen Elizabeth Box (Tom Murtha) and children Isaac and Andy of Oak Park, IL; son Harry Christopher Box (Stacey) and children Henry and Eliza of Cummington, MA; son Simon (Wendy) and children Mark, Emma, and great grand-daughter Olivia. He is also survived by the loving family of his late brother Jack: Michael (Angela) and children Sarah and Timothy; Roger (Jean); Margaret (Kevin) and son James; and Dana (John) and children Katie and Charlie.

A special thanks to Agrace Hospice in Madison for their steadfast and kind support. Heartfelt thanks for the loving care provided by Kolleen Bakkum and 3 year old Lincoln and deep gratitude to Gary (Frankie) Johnson for his many years of friendship and support. George was buried on April 2 at the Farley Center for Peace, Justice and Sustainability in the Natural Path Sanctuary.

If you want to honor the memory of George, contributions could be made to UW Foundation-George Box Endowment Fund (for the support of graduate students) US Bank Lock Box 78807, Milwaukee, WI 53278; Agrace HospiceCare., 5395 E. Cheryl Parkway Madison, WI 53711.

And a last message from George, "Experiment! Make it your motto day and night. Experiment, And it will lead you to the light ...Be Curious, ...Get Furious... Experiment, And you'll see!" Cole Porter

**SERVICE - FIRST UNITARIAN SOCIETY MEETING HOUSE
900 UNIVERSITY BAY DRIVE MADISON, WISCONSIN 53705**