MEMORIAL RESOLUTION OF THE FACULTY OF THE UNIVERSITY OF WISCONSIN-MADISON

ON THE DEATH OF PROFESSOR EMERITUS GEORGE E.P. BOX

Dr. George Edward Pelham Box, professor emeritus in the departments of Statistics and of Industrial and Systems Engineering, died on Thursday, March 28, 2013, at the age of 93. George founded the Department of Statistics in 1960 and co-founded the Center for Quality and Productivity Improvement. George had profound contributions to time series, experimental design and quality improvement. He mentored several generations of students who extended his influence far and wide, and he was known for his sense of humor, genial nature and compelling storytelling abilities. His most famous quote is "All models are wrong but some are useful."

George was born in Gravesend, Kent, England in 1919. Born into modest means, both he and his brother Jack earned scholarships at an elite public school in Kent. George began his scientific life as a chemist, publishing his first paper at the age of 19 on an 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 impact of poison gases. George realized that only a statistician could get reliable conclusions from experiments, so he taught himself statistics and a career was born.

After the war, George obtained a BSc in mathematical statistics from University College London in 1947. He interrupted a master's program to begin working in the Dyestuffs Division of Imperial Chemical Industries for eight years. While at ICI, he completed a PhD at University College in 1952, under Egon Pearson. He spent the academic year 1953-1954 at the North Carolina State College (now University) in Raleigh, where he met some of the preeminent statisticians of the day. In 1957, he left ICI and became director of the Statistical Techniques Research Group at Princeton University.

Milton Friedman suggested in 1940 that the University of Wisconsin establish a Department of Statistics. That early suggestion was unsuccessful. However, in 1959, UW-Madison invited George Box to establish the Department of Statistics, which he created in 1960. George became the Ronald Aylmer Fisher Professor of Statistics in 1971. He co-founded the UW Center for Quality and Productivity Improvement with William "Bill" Hunter in 1985. He retired as an emeritus professor in 1992, though he continued to contribute research papers and write books until his death.

George wrote or co-authored over 200 scientific papers and nine major statistical books on evolutionary operation, times-series, Bayesian analysis, the design of experiments, statistical control, and quality improvement. Box, Hunter and Hunter's *Statistics for Experimenters* remains a classic today. 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*, will be published in 2013 by Wiley.

George received many honors, including a DSc from University College London (1961); the American Society of Quality Shewhart Medal (1968) and honorary society membership; the Royal Statistical Society Guy Medal in Silver (1964) and in Gold (1993) as well as an honorary fellowship (1993); American Statistical Association Wilks Award (1972); membership of the American Academy of Arts and Sciences (1974); a UW-Madison Vilas Research Professorship of Statistics (1980); and a fellow of the Royal Society (1985). Additional awards include the Youden Prize, the Deming Medal, the British Empire Medal and the Byron Bird Award for Excellence in Engineering Research. He was a visiting professor at Harvard Business School (1965-1966) and University of Essex (1970-1971). He served as president of the American Statistics Association (1978) and the Institute of Mathematical Statistics (1979). The Box Medal

for Outstanding Contributions to Industrial Statistics, from the European Network for Business and Industrial Statistics, recognizes in his honor the development and the application of statistical methods in European business and industry. Several well-known statistical concepts bear his name: Box-Jenkins model, Box-Cox transformations, Box-Behnken designs, Box-Muller transform, Ljung-Box test, Box-Pierce test. George Box received honorary degrees from the University of Rochester, New York (1985), Carnegie Mellon University (1989), Universidad de Don Carlos III, Madrid (1995), and the University of Waterloo, Canada (1999).

George is especially 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 for all, and many students later said that they learned more from these sessions than from any classroom or textbook. George was very keen about reaching out to the local community and helping spread the word about quality improvement in all areas including the public sector. He and others were at the origin of the City of Madison Quality Improvement (QI) program.

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 holiday party skits and song lyrics such as "There's no theorem like Bayes' Theorem" sung to the tune of "There's no business like show business" from *Annie Get Your Gun*. We treasure his memory for his wit, modesty, kindness and warmth, his love of family and friends, and his joy in teaching his students.

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