Damaraju Raghavarao (1938-2013)

It is with profound sadness we report that Professor Damaraju Raghavarao, the Laura H. Carnell Professor of Statistics in the Fox School of Business, Temple University, died suddenly from cardiac arrest brought on by a flu on February 6, 2013.

Raghavarao was born on January 5, 1938, the youngest of four children to parents Mrs. Damaraju Lakhshminarasamma and Mr. Damaraju Venkatrayudu. Raghavarao’s future career was foreshadowed at an early age, doing well in elementary and secondary school, especially in Mathematics. He completed his high school education in 1951, BA in Mathematics at Hindu College, Guntur in 1955 and MA in Mathematics from Nagpur University in 1956, where he received the prestigious Khan Bahadur H.M. Malek Gold Medal for highest marks. Raghavarao then continued studying briefly with Professor S.S. Shrikhande at Nagpur but when Shrikhande joined the University of North Carolina in 1958, he moved to Bombay University, completing his Ph.D. under the supervision of Professor M.C. Chakrabarti in 1961. Raghavarao remained at Bombay for the next 3 and a half years as a Research Fellow, where his interests focused on optimal non-orthogonal designs in the context of weighing designs and Partially Balanced Incomplete Block design association schemes. He then moved to Punjab Agricultural University as Associate Professor, where he had ample opportunity to apply much of the theory he had studied by carrying out field experiments on various crops. This work laid the foundation for the interest he developed in seeing the practical side of Statistics, an interest that remained with him for the rest of his life. Raghavarao remained at Punjab Agricultural University for 7 years, where he guided 11 students for either the M.A. or Ph.D. dissertation research, and published his landmark book *Constructions and Combinatorial Problems in Design of Experiments*, and wrote 17 research papers.

In 1972, Raghavarao left India, and joined the University of North Carolina, Chapel Hill as a Visiting Professor. He then held a summer research assignment at Cornell University in 1973 and spent the academic year 1973-74 at the University of Guelph (Canada). In 1974, he joined the Fox School of Business at Temple University as a full Professor where he served the school with great distinction for the next 39 years. Raghavarao expanded his areas of research interest beyond his original constructions and combinatorial problems. He branched into sample survey methods, application of block designs in randomized response, group testing experiments and partially balanced crossover designs. He developed a new class of designs useful in marketing, behavioral sciences and inter-cropping experiments. He published 8 books, more than 135 research papers and guided the Ph.D. dissertation research of 25 students. Raghavarao served as Chair of the Statistics Department on 2 separate 5 year terms, served as Director of the Data Analysis laboratory and arranged 4 conferences on Experimental Designs. For his research contributions, he was appointed the Laura H. Carnell Professor of Statistics in 1989 and awarded the Paul W. Eberman Research award in 1995. He was elected a Fellow of the Institute of Mathematical Statistics and a
member of the International Statistical Institute in 1975, and a Fellow of the American Statistical Association in 1990. In 1999, his students and fellow academicians held a conference in honor of his 60th birthday. The conference was attended by leading researchers in experimental designs from all over the world. A special book titled *Recent Advances in Experimental Design and Related Topics* was published as a result of this conference.

During his more than a half century of professional productivity, Raghavarao taught and influenced countless students through his undergraduate and graduate courses. He was unusually dedicated to his students, always ready to provide wise encouragement during their moments of academic doubt and insightful counseling during the inevitable brick walls that confront those pursuing a difficult research topic. Always a friend and support to his academic colleagues, always ready to stand in and do whatever it took for his department to meet its teaching and research commitments. But more than his qualities as an exceptional teacher and scholar, Raghavarao was a man of great humanity. No angry word escaped his lips. He was a devoted father to his 3 children, daughters Venkata Lakshmi and Sharada and son Venkatrayudu. No tribute to Raghavarao can be complete without mentioning his loving wife, Venkata Rathnam, who inspired Raghavarao’s academic achievements and was an exceptional mother to their 3 children until her untimely death in 1989.

Raghavarao will be deeply missed not only for his scholarship and teaching, but also for the qualities that made him a man of such exceptional character and support to his family members, his colleagues and his students. We mourn his passing.