COMMUNITY ANALYTICS AND THE VALUE OF UNIVERSITY/CITY PARTNERSHIPS

ABSTRACT:

In today’s data driven world, statisticians and data scientists are in high demand. A key area where our talents and skills contribute is a better understanding of cities and communities. Through strong university and local government partnerships, advanced analytics provide needed knowledge to guide community actions, city processes, and regional policies. In this talk I will provide key examples of such partnerships, highlighting the way in which local governments in the Houston area capitalize on universities in the region and the dual enrichment to the university environment. I will examine statistical contributions toward improved flood management, understanding the extent of benzene exposure in the community, and Rice’s extensive collaboration with Houston Health Department around covid including the establishment of the wastewater epidemiology system for the City. Each case study will highlight the improved actions and policy implications resulting from the university and local government collaboration. I will also highlight some of the efforts by the American Statistical Association to promote community analytics and linking to community workforce development.

BIO: Katherine Bennett Ensor is the Noah G. Harding Professor of Statistics at Rice University where she serves as director of the Center for Computational Finance and Economic Systems (cofes.rice.edu) and creator of the Kinder Institute’s Urban Data Platform (kinderudp.org). Ensor served as chair of the Department of Statistics from 1999 through 2013 and has shaped data science at Rice as a member of the campus wide hiring committee. Her research focuses on development of statistical and data science methods for practical problems. Her expertise is on dependent data covering time, space and dimension with applied interests in finance, energy, environment, health and risk management. She is a fellow of the ASA and AAAS and has been recognized for her leadership, scholarship and mentoring. Ensor is the 2022 President of the American Statistical Association (ASA). She served as Vice President of ASA from 2016-2018 and as member of the National Academies Committee on Applied and Theoretical Statistics from 2014-2020. Ensor holds a BSE and MS in Mathematics from Arkansas State University and a PhD in Statistics from Texas A&M University under the supervision of H. Joseph Newton. Ensor is a member of Texas A&M College of Science Academy of Distinguished Former Students and has received the H.O. Hartley Award from the Department of Statistics.