MISSOURI S&T

Mathematics & Statistics Colloquium

Thursday, October 13, 2022, 4:15pm-5:15pm
Toomey 295
Please join for refreshments at 4:00pm before the talk!

Dr. Jeffrey Dawson

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Drivers with Alzheimer's Disease:
Statisticians and the Scientific Method

Abstract. Applied statisticians regularly perform data analyses in collaboration with researchers in a variety of fields, such as those in the physical, biological, health, and social sciences. However, "data analysis" is only one aspect of the scientific method process, and statisticians may, and should, get involved in the other steps, as well. This talk demonstrates how the scientific method played out in a study that compared drivers with mild Alzheimer's disease vs. healthy controls and also assessed whether neuropsychological tests of cognition, vision, and mobility were correlated with driver safety errors (Dawson et al, 2009, Neurology, 72(6):521-7, `https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2677513/`). Both the published details of the study and the "stories behind the story" will be shared, showing how statisticians can play a vital role throughout the entire scientific process.

Biographical Sketch. Dr. Jeff Dawson received his bachelor's degree in Statistics from Brigham Young University, and his doctorate in Biostatistics from Harvard University. He is a Professor of Biostatistics and the Associate Dean for Faculty Affairs in the University of Iowa's College of Public Health. He is also the chair of the college's Global Public Health Initiative, as well as an elected Fellow of the American Statistical Association.