Mathematics, Statistics, and Computer Science   **@ UIC**

Statistics and Data Science Seminar

Unbiased Estimation and Median-Unbiasedness in Finite Population Survey Sampling

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Abstract: This talk will introduce survey sampling along with some sampling designs. Then we discuss the minimum, maximum, and median as important parameters in finite population sampling. We can prove that there are no unbiased estimators of the minimum, maximum, or median for finite population sampling under any sampling design except census. We then identify and characterize a family of sampling designs such that, under these designs, the sample median is a median-unbiased estimator of the population median. In particular, we consider the simple random sampling case.

Wednesday, November 13 at 4:00 PM in 636 SEO