

## **Distribution-Free Sample Size Determination for Mean and Median Estimation**

Thang Duc Nguyen, Tonghui Wang, David Trafimow

Researchers often wish to use sample means or medians to estimate corresponding population means or medians. A priori procedure (APP) applications aid researchers in determining minimum necessary sample sizes for trustworthy estimation. However, although there is a sizeable APP literature, previous APP advances have always assumed an applicable distribution family. For those cases where there is an absence of a well-fitting distribution family, previous APP work may not be appropriate. The present goal is to expand the APP to include distribution free ways to obtain minimum sample sizes necessary to obtain trustworthy estimates of population means or medians.