The A Priori Procedure (APP) for estimating the location parameter of the Laplace distribution

by

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Abstract The present research addresses two main goals. One goal is to extend the a priori procedure (APP) to the family of Laplacian distributions, to facilitate the ability of researchers to collect appropriate sample sizes for estimating population means. Secondly, it is already well-known that for Laplacian distributions, the sample median is superior to the sample mean at estimating the population mean. However, because the APP has not yet been extended to Laplacian distributions, the extent of the sample size savings using the sample median is not yet known. We determine this under various stipulations regarding precision and confidence. In addition, simulations and a worked example with real data support the mathematical derivation. Finally, we include a link to a free and user-friendly computer program so researchers can easily perform their own computations.