Effects of Rounding on Descriptive Statistical Measures

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Rounding, for its simplicity is a commonly applied practice in data collection. Our goal in this study, on one hand is to overview the literature on the effects of different rounding rules on statistical measures. Secondly, we mathematically examine and/or simulate the effects of rounding on descriptive statistics such as mean, standard deviation, median, as well as on skewness and kurtosis. In the analysis, we consider samples drawn from widely applied symmetric and asymmetric probability distributions (e.g. normal, uniform, Poisson, Pareto, binomial, chi-square and Laplace distributions).

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