

# When is $n$ large enough? Looking for the right sample size to estimate proportions

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The central limit theorem indicates that when the sample size goes to infinite, the sampling distribution of means tends to follow a normal distribution; it is the basis for the most usual confidence interval and sample size formulas. This study analyzes what sample size is large enough to assume that the distribution of the estimator of a proportion follows a Normal distribution. Also, we propose the use of a correction factor in sample size formulas to ensure a confidence level even when the central limit theorem does not apply for these distributions.