

Package ‘whSample’

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Type Package

Title Utilities for Sampling

Version 0.9.2

Depends R (>= 3.5.0)

Description Interactive tools for generating random samples. Users select an .xlsx or .csv file with population data and are walked through selecting the sample type (Simple Random Sample or Stratified), the number of backups desired, and a ``stratify_on" value (if desired). The sample size is determined using a normal approximation to the hypergeometric distribution based on Nicholson (1956) <doi:10.1214/aoms/1177728270>. An .xlsx file is created with the sample and key metadata for reference. It is menu-driven and lets users pick an output directory. See vignettes for a detailed walk-through.

License GPL-3

Encoding UTF-8

LazyData true

Imports data.table, magrittr, openxlsx, dplyr, purrr, tools, utils

RoxygenNote 7.1.1

Suggests knitr, rmarkdown, testthat

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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 sampler

Generate Sample Lists from Excel or CSV Files

Description

sampler generates Simple Random or Stratified samples

Arguments

ci	the required confidence level
me	the margin of error
p	the expected probability of occurrence
backups	the number of available replacements
seed	the random number seed

Value

Writes samples to an Excel workbook and generates a report summary.

Details

sampler lets users select an Excel or CSV data file and the type of sample they prefer (Simple Random Sample, Stratified Random Sample, or Tabbed Stratified Sample with each stratum in a different Excel worksheet).

Examples

```
if(interactive()){
  sampler(backups=3, p=0.6)
}
```

 ssize

Determine minimum sample size

Description

ssize takes a population size and returns a sample size

Usage

```
ssize(N, ci = 0.95, me = 0.07, p = 0.5)
```

Arguments

N	The population size
ci	The desired confidence interval (default is 0.95)
me	The margin of error (default: +/- 0.07)
p	The expected rate of occurrence (default: 0.50)

Value

Returns the estimated minimum sample size, rounded up to the nearest integer.

Details

ssize uses a normal approximation of the hypergeometric distribution approach.

Examples

```
ssize(1000)  
ssize(1000, ci=0.90, p=0.60)
```

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