Package: whSample (via r-universe)

October 31, 2024

Type Package

Title Utilities for Sampling

Version 0.9.6.2

Depends R (>= 3.5.0)

Description Interactive tools for generating random samples. Users
select an .xlsx, .csv, or delimited .txt 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.

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Encoding UTF-8

Imports data.table, magrittr, openxlsx, dplyr, purrr, tools, utils,
bit64

RoxygenNote 7.1.1

Suggests knitr, rmarkdown, testthat

VignetteBuilder knitr

Repository https://km4ivi.r-universe.dev

RemoteUrl https://github.com/km4ivi/whsample

RemoteRef HEAD

RemoteSha 204a326ed6824c0b12fba503899a61d7d2b220de

Contents

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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 delimited text (.csv or .txt) 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 hypergeomtric distribution approach.

Examples

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

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