Package: bstrap (via r-universe)

October 23, 2026

Title Obtain and plot bootstrap sampling distributions of the sample mean

Version 0.0.1

Description Many common tests assume sufficient normality of the data distribution, with the received wisdom that if the sample size is ``large'', the normality doesn't matter so much (because of the Central Limit Theorem). It is difficult to judge the normality is good enough, or whether the sample size is big enough. A better way to investigate is to obtain a bootstrap sampling distribution of the sample mean (by taking repeated bootstrap samples), and to assess that distribution for normality. If it is, the normal-theory test will work; if not, not.

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Encoding UTF-8

Roxygen list(markdown = TRUE)

URL https://worktree.ca/nxskok/bstrap
https://nxskok.r-universe.dev/bstrap

Imports dplyr, ggplot2, magrittr, tibble, tidyr

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

Depends R (>= 3.5)

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Contents

home_prices 2
make_dist 2
make_several 3
plot_dist 3
plot_several 4

Index **5**

`home_prices` *Home prices data*

Description

Selling prices of 3-bedroom and 4-bedroom homes in West Lafayette, Indiana

Usage

```
home_prices
```

Format

A dataframe with 37 rows and 2 columns:

price Selling price in US $

bdrms Number of bedrooms (3 or 4)

Source

http://ritsokiguess.site/datafiles/homes.csv

`make_dist` *Generate bootstrap samples and calculate sample means*

Description

Generate bootstrap samples and calculate sample means

Usage

```
make_dist(x, nsim = 10000)
```

Arguments

`x`	data to sample from
`nsim`	number of bootstrap samples

Value

dataframe with column `x_mean` of bootstrap sample means

Examples

```
make_dist(1:5, 20)
```

`make_several` *Obtain bootstrap sampling distributions for several samples*

Description

Obtain bootstrap sampling distributions for several samples

Usage

```
make_several(x, g = "a", nsim = 10000)
```

Arguments

`x`	vector of observations
`g`	vector of group membership of each observation
`nsim`	number of bootstrap samples to draw for each group

Value

dataframe containing columns `x_mean` containing bootstrap sample and `group`, group for which that bootstrap sample was drawn

Examples

```
with(mtcars, make_several(disp, cyl, 5))
```

`plot_dist` *Obtain and plot bootstrap sampling distribution of sample mean*

Description

Obtain and plot bootstrap sampling distribution of sample mean

Usage

```
plot_dist(x)
```

Arguments

x	vector of (quantitative) data

Value

ggplot2 normal quantile plot of bootstrap sampling distribution

Examples

```
plot_dist(1:100)
plot_dist(mtcars$disp)
```

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plot_several *Obtain and plot bootstrap sampling distributions of sample means by group*

Description

Obtain and plot bootstrap sampling distributions of sample means by group

Usage

```
plot_several(x, g)
```

Arguments

x	vector of observations
g	vector of groups that go with the observations

Value

ggplot graph of normal quantile plots, facetted

Examples

```
with(mtcars, plot_several(disp, cyl))
```

Index

∗ **datasets**
home_prices, 2

home_prices, 2

make_dist, 2
make_several, 3

plot_dist, 3
plot_several, 4