Package 'testDriveR'

February 2, 2025

Type Package

Title Teaching Data for Statistics and Data Science

Version 0.5.3													
Description Provides data sets for teaching statistics and data science courses. It includes a sample of data from John Edmund Kerrich's famous coinflip experiment. These are data that I used for statistics. The package also contains an R Markdown template with the required formatting for assignments in my former courses.													
License GPL-3													
<pre>URL https://chris-prener.github.io/testDriveR/,</pre>													
https://github.com/chris-prener/testDriveR													
BugReports https://github.com/chris-prener/testDriveR/issues													
Encoding UTF-8													
LazyData true													
RoxygenNote 7.3.2													
Suggests ggplot2, knitr, rmarkdown, testthat													
NeedsCompilation no													
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Description

A data set containing model year 2017 vehicles for sale in the United States.

Usage

data(auto17)

Format

A data frame with 1216 rows and 21 variables:

id DOT vehicle ID number

mfr vehicle manufacturer

mfrDivision vehicle brand

carLine vehicle name

carClass vehicle type, numeric

carClassStr vehicle type, string

cityFE fuel economy, city

hwyFE fuel economy, highway

combFE fuel economy, combined

guzzlerStr poor fuel economy

fuelStr fuel, abbrev.

fuelStr2 fuel, full

fuelCost estimated fuel cost

displ engine displacement

transStr transmission, full

transStr2 transmission, abbrev.

gears number of gears

cyl number of cylinders

airAsp air aspiration method

driveStr vehicle drive type, abbrev.

driveStr2 vehicle drive type, full

childMortality 3

Source

https://www.fueleconomy.gov/feg/download.shtml

Examples

```
str(auto17)
head(auto17)
```

 ${\it childMortality}$

UNICEF Childhood Mortality Data

Description

A data set containing time series data by country for estimated under-5, infant, and neonatal mortality rates.

Usage

```
data(childMortality)
```

Format

A data frame with 28982 rows and 6 variables:

```
countryISO two-letter country code
countryName full name of country
continent name of continent
category type of mortality rate - infant_MR, child_MR, or under5_MR
year year of estimate
estimate estimated mortality rate
```

Source

https://childmortality.org

Examples

```
str(childMortality)
```

gss14

gss14

2014 General Social Survey

Description

A data set containing data on work, salary, and education from the 2014 General Social Survey. Missing data are explicitly identified with NAs and all data are represented as factors when appropriate.

Usage

data(gss14)

Format

A data frame with 2538 rows and 19 variables:

YEAR GSS year for this respondent

INCOME06 Total family income (2006 version)

INCOM16 Rs family income when 16 yrs old

REG16 Region of residence, age 16

RACE Race of respondent

SEX Respondents sex

SPDEG Spouses highest degree

MADEG Mothers highest degree

PADEG Fathers highest degree

DEGREE Rs highest degree

CHILDS Number of children

SPWRKSLF Spouse self-emp. or works for somebody

SPHRS1 Number of hrs spouse worked last week

MARITAL Marital status

WRKSLF R self-emp or works for somebody

HRS1 Number of hours worked last week

WRKSTAT Labor force status

ID_ Respondent id number

BALLOT Ballot used for interview

Source

https://gssdataexplorer.norc.org

gss14_simple 5

Examples

str(gss14)
head(gss14)

gss14_simple

2014 General Social Survey (Simplified)

Description

A data set containing data on work, salary, and education from the 2014 General Social Survey. Missing data are not explicitly identified with NAs and all data are represented numerically instead of as factors when appropriate.

Usage

```
data(gss14_simple)
```

Format

A data frame with 2538 rows and 19 variables:

YEAR GSS year for this respondent

INCOME06 Total family income (2006 version)

INCOM16 Rs family income when 16 yrs old

REG16 Region of residence, age 16

RACE Race of respondent

SEX Respondents sex

SPDEG Spouses highest degree

MADEG Mothers highest degree

PADEG Fathers highest degree

DEGREE Rs highest degree

CHILDS Number of children

SPWRKSLF Spouse self-emp. or works for somebody

SPHRS1 Number of hrs spouse worked last week

MARITAL Marital status

WRKSLF R self-emp or works for somebody

HRS1 Number of hours worked last week

WRKSTAT Labor force status

ID_ Respondent id number

BALLOT Ballot used for interview

6 kerrich

Source

https://gssdataexplorer.norc.org

Examples

```
str(gss14_simple)
head(gss14_simple)
```

kerrich

Kerrich Coin Toss Trial Outcomes

Description

A data set containing 2,000 trials of coin flips from statistician John Edmund Kerrich's 1940s experiments while imprisoned by the Nazis during World War Two.

Usage

```
data(kerrich)
```

Format

A data frame with 1216 rows and 21 variables:

```
id trial
```

outcome outcome of each trial; TRUE = heads, FALSE = tails **average** cumulative mean of outcomes

Source

 $https://stats.stackexchange.com/questions/76663/john-kerrich-coin-flip-data/77044\#77044\\ https://books.google.com/books/about/An_experimental_introduction_to_the_theo.html?id=JBTvAAAAMAAJ\&hl=en_flip-data/$

References

https://en.wikipedia.org/wiki/John_Edmund_Kerrich

Examples

```
str(kerrich)

if (require("ggplot2")) {
    ggplot(data = kerrich) +
        geom_hline(mapping = aes(yintercept = .5, color = "p(heads)")) +
        geom_line(mapping = aes(x = id, y = average)) +
        ylim(0,1)
}
```

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