

Package ‘scidesignR’

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Type Package

Title Data Sets from Design and Analysis of Experiments and
Observational Studies using R

Version 1.0.0

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agedata	<i>agedata</i>
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Description

A data frame of peoples' age

- age - age in years

Usage

agedata

Format

R data frame

BR_LatSq	<i>BR_LatSq</i>
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Description

BR_LatSq contains data from Table 3 of Bliss, C.I. and Rose, C.L. (1940).

- Dogs - Dog number
- Weeks - Week number
- Treat - Treatment
- value - Mg-per cent serum calcium

Usage

BR_LatSq

Format

R data frame.

chemplant

chemplant

Description

chemplant contains data from section 5.2 of Box et al. (2005)

- run - run number
- T - Level of temperature
- C - Level of concentration
- K - Level of catalyst
- y - Yield

Usage

chemplant

Format

R data frame.

cookies

cookies

Description

chemplant contains data from section 5.2 of Box et al. (2005)

- Run - run number
- Butter - Level of butter
- Sugar - Level of sugar
- Powder - Level of baking powder
- Taste - Taste on a scale of 1 to 10

Usage

cookies

Format

R data frame.

covid19_trial *covid19_trial*

Description

covid19_trial is simulated data based on [Evaluating the efficacy of hydroxychloroquine and azithromycin to prevent hospitalization or death in persons with covid-19](#)

- patient - Patient ID
- trt - Treatment indicator
- die_hosp - Died in hospital (1 = yes, 0 = no)
- age - Age of patient (years)

Usage

```
covid19_trial
```

Format

R data frame.

CSectdat *CSectdat*

Description

CSectdat is data from [Obstetrics and Gynaecology, University of Toronto](#)

- Hospital - MG or NYG
- CSecthosp - Indicator of C-section (1 = yes, 0 = no)

Usage

```
CSectdat
```

Format

R data frame.

fertdat	<i>fertdat</i>
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Description

fertdat is data on the effect of two treatments on wheat yield

- trt - Level of fertilizer (A or B)
- fert - wheat yield

Usage

fertdat

Format

R data frame.

hsvdat	<i>hsvdat</i>
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Description

hsvdat is data from Jaynes et al. (2013). Application of fractional factorial designs to study drug combinations

The columns are:

Run - Run number

A, B, C, D, E, F - Indicator of drug level (-1 = low, +1 = high)

readout - percentage of cells positive for HSV-1 after therapy

Usage

hsvdat

Format

R data frame.

leafspring	<i>leafspring</i>
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Description

leafspring is data from Section 5.1 of Wu and Hammada (2011)

The columns are:

B, C, D, E, Q - Indicator of factor level (-1 = low, +1 = high)

y1, y2, y3 - three replications of free height measurement

Usage

leafspring

Format

R data frame.

lifesat_childmort	<i>lifesat_childmort</i>
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Description

lifesat_childmort data from [World Happiness Report 2019](#)

The columns are:

Country - Country

Country Code - Country code

Year - Year

Tot_pop - Total population

Continent - Continent

LifeSatisfaction - Life satisfaction from Cantril Ladder (10 is the best and 0 is the worst)

Under5mort - Under 5 mortality per 1000

Usage

lifesat_childmort

Format

R data frame.

nhefs9282

nhefs9282

Description

nhefs9282 is data from the 1982 and 1992 waves of the [NHANES I Epidemiologic Follow-up Study \(NHEFS\)](#) column names that end in 1982 are from the 1982 survey and column names that end in 1992 are from the 1992 survey.

The columns are:

- HANESEQ - Subject ID
- wt1982 - 1982 weight (lb)
- wt1992 - 1992 weight (lb)
- smoke1982 - Did subject smoke in 1982 (1 = Yes, 2 = No)
- smoke1992 - Did subject smoke in 1992 (1 = Yes, 2 = No)
- sex - Sex (1 = Male, 2 = Female)
- genhealth1982 - General health (1 = Excellent, 2 = Very Good, 3 = Good, 4 = Fair, 5 = Poor)
- hyperhb1982 - Told by a doctor that you had hypertension or high blood pressure? (1 = Yes, 2 = No)
- cancer1982 - Did a doctor ever tell you that you had any cancer? (1 = Yes, 2 = No)
- cough1982 - Do you usually have a cough? Exclude clearing your throat. (1 = Yes, 2 = No)
- bedridden1982 - Are you usually confined to bed for most of the day? (1 = Yes, 2 = No)
- asthma1982 - Did a doctor ever tell you that you had asthma? (1 = Yes, 2 = No)
- bronchemphy1982 - Did a doctor ever tell you that you had chronic bronchitis, emphysema? (1 = Yes, 2 = No)
- migraine1982 - Did a doctor ever tell you that you had migraine? (1 = Yes, 2 = No)
- heartcond1982 - Did a doctor ever tell you that you had heart condition or heart trouble? (1 = Yes, 2 = No)
- heartattack1982 - Did a doctor ever tell you that you had heart condition or heart attack? (1 = Yes, 2 = No)
- depressed1982 - During the past week I felt depressed? (1 = Yes, 2 = No)
- numcig1982 - About how many cigarettes a day do you smoke? (0 means less than one a day, 1 - 100 is number of cigarettes)
- amntalc1982 - On the average, how often do you drink alcoholic beverages, that is, beer, wine or liquor? (1-31 = Number of days, 94 = recently quit drinking, 95 = more than 3 but less than 12 times a year, no more than 3 times a year)
- drinkcoff1982 - Do you drink coffee? (1 = Yes, 2 = No)
- physicalactive1982 - In your usual day, aside from recreation, are you physically very active, moderately active, or quite inactive? (1 = very active, 2 = moderately active, 3 = quite inactive)

- marital1982 - Are you now married, widowed, divorced, separated or have you never been married? (1 = Married, 2 = Widowed, 3 = Divorced, 4 = Separated, 5 = Never Married)
- urbanrural1982 - Would you say that you have lived most of your life in a rural area, in the city, or in the city suburbs? (1 = rural, 2 = city, 3 = city suburbs, 4 = other (small town))
- famincome1982 - Which of these income groups represents your total combined family income for the past 12 months? (1 = < \$3000, 2 = \$3000 - \$3999, 3 = \$4000 - \$4999, 4 = \$5000 - \$5999, 5 = \$6000 - \$6999, 6 = \$7000 - \$9999, 7 = \$10000 - \$14999, 8 = \$15000 - \$19999, 9 = \$20000 - \$24999, 10 = \$25000 - \$34999, 11 = \$35000 - \$49999, 12 = \$50000 - \$74999, 13 = \$75000 - \$100000) , 14 = over \$100000)
- age1992 - Age in years
- age1982 - Age in years
- marital1992 - Current marital status (1 = married, 2 = widowed, 3 = divorced, 4 = separated, 5 = never married)
- deathage1992 - Subject age at death
- height1982 - Height (in)
- weight1982 - Weight (lb)
- weight1992 - Weight (lb)
- wtgain - Weight gain (lb) weight in 1992 minus weight in 1982
- qsmoke - 1982 smokers that quit smoking between 1982 and 1992 (1 = yes, 2 = no)
- incomeclass - Income classification based on 1982 family income (1 = famincome1982 >= 1 & famincome1982 <= 6, 2 = famincome1982 >= 7 & famincome1982 <= 8, 3 = famincome1982 >= 9 & famincome1982 <= 10, 4 = famincome1982 >= 11 & famincome1982 <= 12, 5 = famincome1982 >= 13)

Usage

```
nhefs9282
```

Format

```
R data frame.
```

```
painstudy
```

```
painstudy
```

Description

Simulated data of [Amundson, A.W. et al. \(2017\)](#).

- pain - pain score (0 - no pain to 10 - worst possible pain)
- trt - treatment level

Usage

```
painstudy
```


Format

R data frame

painstudy2

painstudy2

Description

Simulated data of [Amundson, A.W. et al. \(2017\)](#).

- pain - pain score (0 - no pain to 10 - worst possible pain)
- trt - treatment level

Usage

painstudy2

Format

R data frame

rtdat

rtdat

Description

Reaction time data

- rt - reaction time (seconds)
- group - treatment level

Usage

rtdat

Format

R data frame

scidesignR_example *Get path to scidesignR example*

Description

scidesignR comes bundled with a few data sets in its inst/extdata directory. This function make them easy to access

Usage

```
scidesignR_example(file = NULL)
```

Arguments

file Name of file. If NULL, the example files will be listed.

Examples

```
scidesignR_example()  
scidesignR_example("nhefshwdat.csv")
```

shoedat_obs *shoedat_obs*

Description

Boys shoe data based on Section 3.2 of Box et al. (2005)

- boy - Subject id
- sideA - Side material A was assigned (L - left side, R - right side)
- sideB - Side material B was assigned (L - left side, R - right side)
- wearA - Amount of wear from the shoe assigned material A
- wearB - Amount of wear from the shoe assigned material B

Usage

```
shoedat_obs
```

Format

R data frame

silkdats	<i>silkdats</i>
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Description

Data from [Bucciarelli, A. et al. \(2021\)](#)

- Std - Standard run number
- Run - Randomized run number
- A: Number of baths - Level of number of baths
- B: Time - Level of time
- C: Temperature - Level of temperature
- D: Concentration - Level of concentration
- mass_change - Mass change (initial mass - final mass)
- mass_change_pct - Mass percent change (initial mass - final mass)/(initial mass)
- removed_sericin_single - Amount of removed sericin from a single bath
- removed_sericin_double - Amount of removed sericin from a double bath
- removed_sericin_pct - Percentage of removed sericin

Usage

silkdats

Format

R data frame

wtlossdat	<i>wtlossdat</i>
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Description

wtlossdat contains data from section 5.2 of [Box et al. \(2005\)](#)

- A - Level of food diary
- B - Level of increasing activity
- C - Level of home visit
- y - Weight loss (kg)

Usage

wtlossdat

Format

R data frame.

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