

Package ‘SDaA’

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Type Package

Title Sampling: Design and Analysis

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Description Functions and Datasets from Lohr, S. (1999), Sampling: Design and Analysis, Duxbury.

Depends survey, ggplot2 (>= 0.8.2), roxygen

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LazyData Yes

Collate ‘agpop.R’ ‘agsrs.R’ ‘agstrat.R’ ‘anthrop.R’ ‘anthsrs.R’ ‘anthuneq.R’ ‘audit.R’ ‘books.R’
‘certify.R’ ‘coots.R’ ‘counties.R’ ‘divorce.R’ ‘golfers.R’ ‘htpop.R’ ‘htsrs.R’ ‘htstrat.R’
‘journal.R’ ‘lahiri.design.R’ ‘measles.R’ ‘ncvs.R’ ‘nybight.R’ ‘otters.R’ ‘ozone.R’ ‘samples.R’
‘seals.R’ ‘selectrs.R’ ‘statepop.R’ ‘statepps.R’ ‘syc.R’ ‘teachers.R’ ‘teachmi.R’ ‘teachnr.R’
‘winter.R’

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agpop

Data from the U...

Description

Data from the U.S. 1992 Census of Agriculture

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 437.

agsrs

Data from a SRS of size 300 from the U...

Description

Data from a SRS of size 300 from the U.S. 1992 Census of Agriculture

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 437.

agstrat

Data from a stratified random sample of size 300 from...

Description

Data from a stratified random sample of size 300 from the U.S. 1992 Census of Agriculture.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 437.

anthrop

Length of Left Middle Finger and Height for 3000 Criminals...

Description

Length of Left Middle Finger and Height for 3000 Criminals

Details

Length of left middle finger and height for 3000 criminals

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 438.

 anthsrs

Length of Left Middle Finger and Height for an SRS of Size 200...

Description

Length of Left Middle Finger and Height for an SRS of Size 200

Details

Length of left middle finger and height for an SRS of 200 criminals from the anthrop dataset

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 438.

anthuneq

Length of Left Middle Finger and Height for an Unequal-Probability Sample of Size 200...

Description

Length of Left Middle Finger and Height for an Unequal-Probability Sample of Size 200

Details

Length of left middle finger and height for an unequal-probability sample of criminals of size 200 from the anthrop dataset. The probability of selection, $\psi[i]$, was proportional to 24 for $y < 65$, 12 for $y = 65$, 2 for $y = 66$ or 67 , and 1 for $y > 67$.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 438.

athrop

Length of Left Middle Finger and Height for 3000 Criminals...

Description

Length of Left Middle Finger and Height for 3000 Criminals

Details

Length of left middle finger and height for 3000 criminals

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 438.

coots

Egg Size from Coots...

Description

Egg Size from Coots

Details

Selected information on egg size from coots, from a study by Arnold (1991). Data courtesy of Todd Arnold.

Note

Not all observations are used for this data set, so results may not agree with those in Arnold (1991)

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 440.

counties

Data from an SRS of 100 of the 3141 Counties in the U...

Description

Data from an SRS of 100 of the 3141 Counties in the U.S.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 440.

divorce

Data from a Sample of Divorce Records...

Description

Data from a Sample of Divorce Records

Details

Data from a sample of divorce records for states in the Divorce Registration Area (National Center for Health Statistics 1987)

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 440.

golfdrs

Simple Random Sample of Golf Courses...

Description

Simple Random Sample of Golf Courses

Details

Simple Random Sample (SRS) of 120 golf courses taken from the population of the Website www.golfcourse.com

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and TODO.

htpop

Height and gender of 2000 persons in an artificial population...

Description

Height and gender of 2000 persons in an artificial population

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. 230–234 and 441.

htsrs

Height and gender for an SRS of 200 persons, taken from htpop...

Description

Height and gender for an SRS of 200 persons, taken from htpop

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. 230–234 and 442.

htstract

Height and gender for a stratified random sample from htopop...

Description

Height and gender for a stratified random sample from htopop

Details

Height and gender for a stratified random sample of 160 women and 40 men taken from the htopop population

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. 230–234 and 442.

htstrat

Height and gender for a stratified random sample from htopop...

Description

Height and gender for a stratified random sample from htopop

Details

Height and gender for a stratified random sample of 160 women and 40 men taken from the htopop population

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. 230–234 and 442.

journal

Types of Sampling Used for Articles in a Sample of Journals...

Description

Types of Sampling Used for Articles in a Sample of Journals

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 442.

lahiri.design *Draw Samples Using Lahiri's Method...*

Description

Draw Samples Using Lahiri's Method

Usage

```
lahiri.design(release, n, clnames=seq(along = release))
```

Arguments

release	vector of relative sizes of population PSUs
n	desired sample size
clnames	vector of PSU names for population

Value

clusters vector of n PSUs selected with replacement and with probability proportional to release

Note

Original code from Lohr (1999), p. 452 – 453.

Author(s)

Sharon Lohr, slightly modified by Tobias Verbeke

References

Lahiri, D. B. (1951). A method of sample selection providing unbiased ratio estimates, *Bulletin of the International Statistical Institute*, 33: 133 – 140.

measles *Survey of Parents of Children Non-Immunized against Measles...*

Description

Survey of Parents of Children Non-Immunized against Measles

Details

Roberts et al. (1995) report on the results of a survey of parents whose children had not been immunized against measles during a recent campaign to immunize all children in the first five years of secondary school.

Note

The original data were unavailable; univariate and multivariate summary statistics from these artificial data, however, are consistent with those in the paper.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 442.

 ncvs

Victimization Incidents in the July-December 1989 NCVS...

Description

Victimization Incidents in the July-December 1989 NCVS

Details

Selected variables for victimization incidents in the July-December 1989 NCVS. Note that some variables were recoded from the original data file.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 443.

 nybight

Data Collected in the New York Bight...

Description

Data Collected in the New York Bight

Details

Data collected in the New York Bight for June 1974 and June 1975 (Wilk et al. 1977)

Note

Two of the original strata were combined because of insufficient sample sizes.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 443.

otters

Otters Data...

Description

Otters Data

Details

Data on number of holts (dens) in Shetland, United Kingdom used in Kruuk et al. (1989). (Data courtesy of Hans Kruuk).

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 443.

ozone

Ozone Readings from Eskdalemuir, for 1994 and 1995...

Description

Ozone Readings from Eskdalemuir, for 1994 and 1995

Details

Hourly ozone readings in parts per billion (ppb) from Eskdalemuir, Scotland, for 1994 and 1995

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 443.

samples

Samples Dataset...

Description

Samples Dataset

Details

All possible SRSs that can be generated from the population in Example 2.1 of Lohr(1999).

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. 26–27 and 444.

`seals`*Breathing Holes of Seals...*

Description

Breathing Holes of Seals

Details

Data on number of breathing holes found in sampled areas of Svalbard fjords, reconstructed from summary statistics given in Lydersen and Ryg (1991)

Note

The data are used in Chapter 4, Exercise 11.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 444.

`selectrs`*Steps used in Selecting an SRS...*

Description

Steps used in Selecting an SRS

Details

Steps used in selecting the simple random sample (SRS) in Example 2.4 of Lohr(1999).

Note

the set of indices in column `e` was used to select observations from `agpop` into dataset `agsrs`.

References

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. 31–34 and 444.

statepop

*Unequal-Probability Sample of Counties in the US...***Description**

Unequal-Probability Sample of Counties in the US

Details

counties selected with probability proportional to 1992 population

References

Lohr (1999). *Sampling: Design and Analysis*, Duxbury, p. 190 – 192 and 444.

statepps

*Information on States...***Description**

Information on States

Details

Number of counties, land area, and population for the 50 states plus the District of Columbia

References

Lohr (1999). *Sampling: Design and Analysis*, Duxbury, p. TODO and 445.

syc

*Survey of Youth in Custody, 1987...***Description**

Survey of Youth in Custody, 1987

Details

The 1987 Survey of Youth in Custody sampled juveniles and young adults in long-term, state-operated juvenile institutions. Residents of facilities at the end of 1987 were interviewed about family background, previous criminal history, and drug and alcohol use. Selected variables from the survey are contained in the syc data frame.

References

Lohr (1999). *Sampling: Design and Analysis*, Duxbury, p. 235–239 and 445.

teachers

Elementary School Teacher Workload Data...

Description

Elementary School Teacher Workload Data

Details

Selected variables from a study on elementary school teacher workload in Maricopa County, Arizona.

Note

The study is described in Exercise 16 of Chapter 15. The psu sizes are given in [teachmi](#). The large stratum had 245 schools; the small/medium stratum had 66 schools.

References

Gnap, R. (1995). Teacher load in Arizona elementary school districts in Maricopa County. Ph.D. diss., Arizona State University

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 446.

teachmi

Cluster Sizes for Elementary School Teacher Workload Data...

Description

Cluster Sizes for Elementary School Teacher Workload Data

Details

Cluster sizes for the study on elementary school teacher workload in Maricopa County, Arizona.

Note

The study is described in Exercise 16 of Chapter 15. The actual date are given in [teachers](#).

References

Gnap, R. (1995). Teacher load in Arizona elementary school districts in Maricopa County. Ph.D. diss., Arizona State University

Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 446.

`teachnr`*Follow-Up Study of Nonrespondents from Gnap (1995)..*

Description

Follow-Up Study of Nonrespondents from Gnap (1995)

Details

Follow-up study of nonrespondents from the Gnap (1995) study on the workload of elementary school teachers in Maricopa County, Arizona.

Note

The study is described in Exercise 16 of Chapter 15. The actual date are given in `teachers`. Cluster size data for the original study are given in `teachmi`.

References

- Gnap, R. (1995). Teacher load in Arizona elementary school districts in Maricopa County. Ph.D. diss., Arizona State University
- Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 446.

`winter`*ASU Winter Closure Survey..*

Description

ASU Winter Closure Survey

Details

Selected variables from the Arizona State University Winter Closure Survey, taken in January 1995. This survey was taken to investigate the attitudes and opinions of university employees toward the closing of the university between December 25 and January 1.

References

- Lohr (1999). Sampling: Design and Analysis, Duxbury, p. TODO and 447–448.

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