Package 'SNAData'

November 10, 2026

Title Social Networks Analysis Data Examples

Version 1.58.0

Author Denise Scholtens

Description Data from Wasserman & Faust (1999) ``Social Network Analysis''

Maintainer Denise Scholtens <dscholtens@northwestern.edu>

Depends R (>= 2.4.0), graph

Suggests Rgraphviz

License LGPL

biocViews ExperimentData

git_url https://git.bioconductor.org/packages/SNAData

git_branch RELEASE_3_23

git_last_commit 50f29dc

git_last_commit_date 2026-04-28

Repository Bioconductor 3.23

Date/Publication 2026-11-10

Contents

CEOclubs 2
Countries 3
Florentine 4
Freeman 5
Krackhardt 6

Index **8**

CEOclubs *Galaskiewicz's CEO and Clubs Network*

Description

Affiliation matrix and bipartite graph for Galaskiewicz's CEO and clubs network.

Usage

```
data(CEOclubsAM)
data(CEOclubsBPG)
```

Format

CEOclubsAM: data frame with 26 rows and 15 columns

CEOclubsBPG: graphNEL object with 41 nodes and 98 directed edges

Details

CEOclubsAM is an affiliation matrix representation of the CEO and clubs network. The 26 rows correspond to the 26 CEOs, the 15 columns correspond to the 15 clubs, and an entry of "1" in the ith row and jth column represents membership of the ith CEO in the jth club. All other entries in the matrix are "0".

CEOclubsBPG is a bipartite graph representation of the information contained in CEOclubsAM. Edges connect CEOs to clubs of which they are members. The bipartite structure of the graph should be apparent if CEOclubsBPG is plotted using Rgraphviz and the "dot" layout.

Source

Wasserman, S. and Faust, K. (1999). *Social Network Analysis*. Cambridge University Press. New York.

References

Galaskiewicz, J. (1985). *Social Organization of an Urban Grants Economy*. New York: Academic Press.

Examples

```
data(CEOclubsAM)
data(CEOclubsBPG)
```

Countries *Countries Trade Data*

Description

Graphs of relation data between a countries trade network and data frame of attribute variables.

Usage

```
data(basicGoods)
data(food)
data(crudeMaterials)
data(minerals)
data(diplomats)
data(countriesAttrs)
```

Format

`basicGoods`: graphNEL object with 24 nodes and 310 directed edges

`food`: graphNEL object with 24 nodes and 307 directed edges

`crudeMaterials`: graphNEL object with 24 nodes and 307 directed edges

`minerals`: graphNEL object with 24 nodes and 135 directed edges

`diplomats`: graphNEL object with 24 nodes and 369 directed edges

`countriesAttrs`: data frame with 24 rows and 4 columns

Details

The graphs contain the following relation information from one country to another. The data are reported in Tables B.12-B.16, respectively, in Wasserman and Faust (1999).

`basicGoods` trade of basic manufactured goods

`food` trade of food and live animals

`crudeMaterials` trade of crude materials, excluding food

`minerals` trade of minerals, fuels, and other petroleum products

`diplomats` exchange of diplomats

`countriesAttrs` contains the following attribute variables for the countries. The data are reported in Table B.17 in Wasserman and Faust (1999).

`PopGrowth` average annual population growth between 1970 and 1981

`GNP` average GNP growth rate per capita between 1970 and 1981

`Schools` secondary school enrollment ratio in 1980

`Energy` energy consumption per capita in 1980, measured in kilo coal equivalents

Source

Wasserman, S. and Faust, K. (1999). *Social Network Analysis*. Cambridge University Press. New York.

References

Smith, D. and White, D. (1988). Structure and dynamics of the global economy: Network analysis of international trade 1965-1980. Unpublished manuscript.

Examples

```
data(basicGoods)
data(food)
data(crudeMaterials)
data(minerals)
data(diplomats)
data(countriesAttrs)
```

Florentine *Padgett's Florentine Families*

Description

Graphs of relation data between Padgett's Florentine families and data frame of attribute variables.

Usage

```
data(business)
data(marital)
data(florentineAttrs)
```

Format

`business`: graphNEL object with 16 nodes and 15 undirected edges

`marital`: graphNEL object with 16 nodes and 20 undirected edges

`florentineAttrs`: data frame with 16 rows and 3 columns

Details

The graphs contain the following relation information between the 16 Florentine families. The data are reported in Tables B.5 and B.6, respectively, in Wasserman and Faust (1999).

`business` business relations between families

`marital` marital relations between families

`florentineAttrs` contains the following attribute variables for the 16 Florentine families. The data are reported in Table B.7 in Wasserman and Faust (1999).

`Wealth` net wealth, measured in 1427, coded in thousands of lira

`NumberPriorates` number of seats on the Civic Council held between nd 1344

`NumberTies` number of business or marriage ties in the total network data set containing 116 families

Source

Wasserman, S. and Faust, K. (1999). *Social Network Analysis*. Cambridge University Press. New York.

References

Kent, D. (1978). *The Rise of the Medici: Faction in Florence, 1426-1434*. Oxford: Oxford University Press.

Padgett, J.F. (1987). Social mobility in hieratic control systems. Unpublished manuscript.

Examples

```
data(business)
data(marital)
data(florentineAttrs)
```

`Freeman` *Freeman's EIES Network*

Description

Graphs of relation data for Freeman's EIES researchers and data frame of attributes.

Usage

```
data(acqTime1)
data(acqTime2)
data(messages)
data(freemanAttrs)
```

Format

`acqTime1`: graphNEL object with 32 nodes and 650 directed, weighted edges

`acqTime2`: graphNEL object with 32 nodes and 759 directed, weighted edges

`messages`: graphNEL object with 32 nodes and 460 directed, weighted edges

`freemanAttrs`: data frame with 32 rows and 4 columns

Details

The graphs contain the following relation information between Freeman's EIES researchers. The data are reported in Tables B.8-B.10, respectively, in Wasserman and Faust (1999).

`acqTime1` valued acquaintanceship relations measured at nuary 1978, the start of the study; 4 = close personal friend, 2 = person I've met, 1 = person I've heard of but not met, known name or no reply

`acqTime2` valued acquaintanceship relations measured at ptember 1978, the end of the study; 4 = close personal friend, 2 = person I've met, 1 = person I've heard of but not met, known name or no reply

`messages` number of messages sent from one researcher to another

`freemanAttrs` contains the following attribute variables for the 32 researchers. The data are reported in Table B.11 in Wasserman and Faust (1999).

`OriginalID` original ID, as numbered in Freeman and Freeman (1979)

`Citations` number of citations in 1978

`DisciplineCode` discipline, coded 1,2,3

`Discipline` discipline name

Source

Wasserman, S. and Faust, K. (1999). *Social Network Analysis*. Cambridge University Press. New York.

References

Freeman, S.C. and Freeman, L.C. (1979). The networkers network: A study of the impact of a new communications medium on sociometric structure. Social Science Research Reports No.46. Irvine, CA: University of California.

Examples

```
data(acqTime1)
data(acqTime2)
data(messages)
data(freemanAttrs)
```

Krackhardt *Krackhardt's High-tech Managers*

Description

Graphs of relation data between managers of Krackhardt's high-tech company and data frame of attribute variables.

Usage

```
data(advice)
data(friendship)
data(reportsTo)
data(krackhardtAttrs)
```

Format

`advice`: graphNEL object with 21 nodes and 190 directed edges

`friendship`: graphNEL object with 21 nodes and 102 directed edges

`reportsTo`: graphNEL object with 21 nodes and 20 directed edges

`krackhardtAttrs`: data frame with 21 rows and 4 columns

Details

The graphs contain the following relation information between managers. The data are reported in Tables B.1-B.3, respectively, in Wasserman and Faust (1999).

`advice` advice relation

`friendship` friendship relation

`reportsTo` "reports to" relation

`krackhardtAttrs` contains the following attribute variables for the 21 managers. The data are reported in Table B.4 in Wasserman and Faust (1999).

`Age` in years

`Tenure` length of time employed by company, in years

`Level` level in the corporate hierarchy, coded 1,2,3

`Dept` department of the company, coded 1,2,3,4

Source

Wasserman, S. and Faust, K. (1999). *Social Network Analysis*. Cambridge University Press. New York.

References

Krackhardt, D. (1987). Cognitive social structures. *Social Networks*. 9, 109-134.

Examples

```
data(advice)
data(friendship)
data(reportsTo)
data(krackhardtAttrs)
```

Index

∗ **datasets**
CEOclubs, 2
Countries, 3
Florentine, 4
Freeman, 5
Krackhardt, 6

acqTime1 *(*Freeman*)*, 5
acqTime2 *(*Freeman*)*, 5
advice *(*Krackhardt*)*, 6

basicGoods *(*Countries*)*, 3
business *(*Florentine*)*, 4

CEOclubs, 2
CEOclubsAM *(*CEOclubs*)*, 2
CEOclubsBPG *(*CEOclubs*)*, 2
Countries, 3
countriesAttrs *(*Countries*)*, 3
crudeMaterials *(*Countries*)*, 3

diplomats *(*Countries*)*, 3

Florentine, 4
florentineAttrs *(*Florentine*)*, 4
food *(*Countries*)*, 3
Freeman, 5
freemanAttrs *(*Freeman*)*, 5
friendship *(*Krackhardt*)*, 6

Krackhardt, 6
krackhardtAttrs *(*Krackhardt*)*, 6

marital *(*Florentine*)*, 4
messages *(*Freeman*)*, 5
minerals *(*Countries*)*, 3

reportsTo *(*Krackhardt*)*, 6