

Package ‘ZeligChoice’

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Title Zelig Choice Models

Description Add-on package for Zelig 5. Enables the use of a variety of logit and probit regressions.

URL <https://cran.r-project.org/package=ZeligChoice>

BugReports <https://github.com/IQSS/Zelig/issues>

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Imports dplyr, Formula, jsonlite, MASS, methods, VGAM, Zelig (>= 5.1-1),

Suggests testthat, knitr, zeligverse

Collate 'model-mlogit.R' 'model-obinchoice.R' 'model-oprobit.R'
'model-ologit.R' 'model-bbinchoice.R' 'model-bprobit.R'
'model-blogit.R' 'create-json.R'

RoxygenNote 6.0.1

NeedsCompilation no

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 coalition

Coalition Dissolution in Parliamentary Democracies

Description

This data set contains survival data on government coalitions in parliamentary democracies (Belgium, Canada, Denmark, Finland, France, Iceland, Ireland, Israel, Italy, Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom) for the period 1945-1987. For parsimony, country indicator variables are omitted in the sample data.

Usage

```
data(coalition)
```

Format

A table containing 7 variables ("duration", "ciep12", "invest", "fract", "polar", "numst2", "crisis") and 314 observations. For variable descriptions, please refer to King, Alt, Burns and Laver (1990).

Source

ICPSR

References

- King, Gary, James E. Alt, Nancy Elizabeth Burns and Michael Laver (1990). "A Unified Model of Cabinet Dissolution in Parliamentary Democracies," *American Journal of Political Science*, vol. 34, no. 3, pp. 846-870.
- Gary King, James E. Alt, Nancy Burns, and Michael Laver. ICPSR Publication Related Archive, 1115.

construct.v	<i>Split Names of Vectors into N-vectors This function is used to organize how variables are spread across the list of formulas</i>
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Description

Split Names of Vectors into N-vectors This function is used to organize how variables are spread across the list of formulas

Usage

```
construct.v(constraints, ndim)
```

Arguments

constraints	a constraints object
ndim	an integer specifying the number of dimensions

Value

a list of character-vectors

createJSONzeligchoice	<i>Utility function for constructing JSON file that encodes the hierarchy of available statistical models in ZeligChoice</i>
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Description

Utility function for construction a JSON file that encodes the hierarchy of available statistical models.

Usage

```
createJSONzeligchoice()
```

Value

Returns TRUE on successful completion of json file

Author(s)

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`ev.mlogit`*Simulate Expected Value for Multinomial Logit*

Description

Simulate Expected Value for Multinomial Logit

Usage

```
ev.mlogit(fitted, constraints, all.coef, x, ndim, cnames)
```

Arguments

<code>fitted</code>	a fitted model object
<code>constraints</code>	a constraints object
<code>all.coef</code>	all the coefficients
<code>x</code>	a setx object
<code>ndim</code>	an integer specifying the number of dimensions
<code>cnames</code>	a character-vector specifying the names of the columns

Value

a matrix of simulated values

`pv.mlogit`*Simulate Predicted Values*

Description

Simulate Predicted Values

Usage

```
pv.mlogit(fitted, ev)
```

Arguments

<code>fitted</code>	a fitted model object
<code>ev</code>	the simulated expected values

Value

a vector of simulated values

sanction

Multilateral Economic Sanctions

Description

Data on bilateral sanctions behavior for selected years during the general period 1939-1983. This data contains errors that have since been corrected. Please contact Lisa Martin before using this data for publication.

Usage

```
data(sanction)
```

Format

A table containing 8 variables ("mil", "coop", "target", "import", "export", "cost", "num", and "ncost") and 78 observations. For full variable description, see Martin, 1992.

Source

Martin, 1992

References

Martin, Lisa (1992). *Coercive Cooperation: Explaining Multilateral Economic Sanctions*, Princeton: Princeton University Press.

Zelig-bbinchoice-class

Bivariate Binary Choice object for inheritance across models in ZeligChoice

Description

Bivariate Binary Choice object for inheritance across models in ZeligChoice

Methods

`zelig(formula, data, model = NULL, ..., weights = NULL, by, bootstrap = FALSE)` The `zelig` function estimates a variety of statistical models

Zelig-blogit-class	<i>Bivariate Logistic Regression for Two Dichotomous Dependent Variables</i>
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Description

Vignette: http://docs.zeligproject.org/articles/zeligchoice_blogit.html

Zelig-bprobit-class	<i>Bivariate Probit Regression for Two Dichotomous Dependent Variables</i>
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Description

Vignette: http://docs.zeligproject.org/articles/zeligchoice_bprobit.html

Zelig-mlogit-class	<i>Multinomial Logistic Regression for Dependent Variables with Unordered Categorical Values</i>
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Description

Vignette: http://docs.zeligproject.org/articles/zeligchoice_mlogit.html

Methods

`zelig(formula, data, model = NULL, ..., weights = NULL, by, bootstrap = FALSE)` The `zelig` function estimates a variety of statistical models

Zelig-obinchoice-class	<i>Ordered Choice object for inheritance across models in ZeligChoice</i>
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Description

Ordered Choice object for inheritance across models in ZeligChoice

Methods

`zelig(formula, data, model = NULL, ..., weights = NULL, by, bootstrap = FALSE)` The `zelig` function estimates a variety of statistical models

Zelig-ologit-class	<i>Ordinal Logistic Regression for Ordered Categorical Dependent Variables</i>
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Description

Vignette: http://docs.zeligproject.org/articles/zeligchoice_ologit.html

Zelig-oprobit-class	<i>Ordinal Probit Regression for Ordered Categorical Dependent Variables</i>
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Description

Vignette: http://docs.zeligproject.org/articles/zeligchoice_oprobit.html

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