Type Package

Title Indicators of Electoral Systems and Party Systems

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URL https://github.com/Nicolas-Schmidt/esaps

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Effective Number of Parties

**Description**

The Effective Number of Parties (ENP) is an index developed by Laakso and Taagepera (1979) that allows to count the relevant parties in a party system. The formula consists on dividing one over the sum of the squares of the proportions (votes or seats) that the parties obtain in an electoral instance.

**Usage**

```r
enp(esapsObject, summary = FALSE)
```

**Arguments**

- `summary` Summary of the data by country, by default it is `FALSE`.

**Examples**

```r
votes <- list(data.frame(country = rep("ARG", 3),
                      year = c(1995, 2000, 2005),
                      party_A = c(40, 10, 20),
                      party_B = c(35, 20, 40),
                      party_C = c(25, 70, 40)),
                  data.frame(country = rep("URY", 4),
                      year = c(1995, 2000, 2005, 2010),
                      party_A = c(30, 30, 20, 20),
                      party_B = c(30, 50, 40, 30),
                      party_C = c(30, 10, 30, 25),
                      party_D = c(10, 10, 10, 25)),
                  data.frame(country = rep("BRA", 2),
                      year = c(1993, 1998),
                      party_A = c(30, 55),
                      party_B = c(70, 45)))

votes <- esaps_object(dataset = votes, name.country = "country", name.year = "year")
en_party <- enp(votes, summary = TRUE)
```

Create an object of class esaps

**Description**

Create an object of esaps class to calculate party system indicators.
Usage

esaps_object(path = NULL, dataset = NULL, name.file = NULL, extension = NULL, nCountry = NULL, name.year, name.country, name.M = NULL)

Arguments

path Character vector containing one or more path names.
dataset Electoral results by party. It can be a matrix, a data.frame or a list.
name.file Name of the database file.
extension Extension of the database format.
nCountry Number of countries (number of sheets).
name.year Name of the variable that contains years.
n.name.country Name of the variable that contains the country.
n.name.M Name of the variable that contains the district magnitude (M+1). It is for the calculation of endogenous and exogenous electoral volatility (Torcal and Lago, 2015).

Examples

votes <- list(data.frame(country = rep("ARG", 3),
                       year = c(1995, 2000, 2005),
                       party_A = c(40, 10, 20),
                       party_B = c(35, 20, 40),
                       party_C = c(25, 70, 40)),
               data.frame(country = rep("URY", 4),
                       year = c(1995, 2000, 2005, 2010),
                       party_A = c(30, 30, 20, 20),
                       party_B = c(30, 50, 40, 30),
                       party_C = c(30, 10, 30, 25),
                       party_D = c(10, 10, 10, 25)),
               data.frame(country = rep("BRA", 2),
                       year = c(1993, 1998),
                       party_A = c(30, 55),
                       party_B = c(70, 45)))

votes <- esaps_object(dataset=votes, name.country="country", name.year="year")
is(votes, "esaps") ## TRUE

---

evolat Electoral volatility calculation

Description

Usage

`evolat(esapsObject, method, threshold = 2, summary = FALSE, digits = 2)`

Arguments

- `method` Method to calculate electoral volatility: "Pedersen", "Powell and Tucker" or "Torcal and Lago".
- `threshold` Minimum threshold for 'Type A' electoral volatility calculation (Powell and Tucker, 2014). By default is 2%.
- `summary` Summary of data by country, by default it is `FALSE`.
- `digits` integer indicating the number of decimal places to be used.

Examples

```r
votes <- list(data.frame(country = rep("ARG", 3),
                       year = c(1995, 2000, 2005),
                       party_A = c(40, 10, 20),
                       party_B = c(35, 20, 40),
                       party_C = c(25, 70, 40)),
               data.frame(country = rep("URY", 4),
                       year = c(1995, 2000, 2005, 2010),
                       party_A = c(30, 30, 20, 20),
                       party_B = c(30, 50, 40, 30),
                       party_C = c(30, 10, 30, 25),
                       party_D = c(10, 10, 10, 25)),
               data.frame(country = rep("BRA", 2),
                       year = c(1993, 1998),
                       party_A = c(30, 55),
                       party_B = c(70, 45)))

votes <- esaps_object(dataset = votes, name.country = "country", name.year = "year")
volatility <- evolat(esapsObject = votes, method = "Pedersen", summary = TRUE)
```
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