

Package ‘EasyDescribe’

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Type Package

Title A Convenient Way of Descriptive Statistics

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Depends R (>= 3.5.0)

Imports multiCA, CATT, gmodels, psych, rcompanion, FSA, trend

Description Descriptive Statistics is essential for publishing articles. This package can perform descriptive statistics according to different data types. If the data is a continuous variable, the mean and standard deviation or median and quartiles are automatically output; if the data is a categorical variable, the number and percentage are automatically output. In addition, if you enter two variables, the first variable will be described hierarchically based on the second variable and the statistical differences between different groups will be compared using appropriate statistical methods. And for groups more than two, the post hoc test will be applied. For more information on the methods we used, please see the following references:

Libiseller, C. and Grimvall, A. (2002) <doi:10.1002/env.507>,
Patefield, W. M. (1981) <doi:10.2307/2346669>,
Hope, A. C. A. (1968) <doi:10.1111/J.2517-6161.1968.TB00759.X>,
Mehta, C. R. and Patel, N. R. (1983) <doi:10.1080/01621459.1983.10477989>,
Mehta, C. R. and Patel, N. R. (1986) <doi:10.1145/6497.214326>,
Clarkson, D. B., Fan, Y. and Joe, H. (1993) <doi:10.1145/168173.168412>,
Cochran, W. G. (1954) <doi:10.2307/3001616>,
Armitage, P. (1955) <doi:10.2307/3001775>,
Szabo, A. (2016) <doi:10.1080/00031305.2017.1407823>,
David, F. B. (1972) <doi:10.1080/01621459.1972.10481279>,
Joanes, D. N. and Gill, C. A. (1998) <doi:10.1111/1467-9884.00122>,
Dunn, O. J. (1964) <doi:10.1080/00401706.1964.10490181>,
Copenhaver, M. D. and Holland, B. S. (1988) <doi:10.1080/00949658808811082>,
Chambers, J. M., Freeny, A. and Heiberger, R. M. (1992) <doi:10.1201/9780203738535-5>,
Shaffer, J. P. (1995) <doi:10.1146/annurev.ps.46.020195.003021>,
Myles, H. and Douglas, A. W. (1973) <doi:10.2307/2063815>,

Rahman, M. and Tiwari, R. (2012) <doi:10.4236/health.2012.410139>.

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EasyDescribe-package *A Convenient Way of Descriptive Statistics*

Description

EasyDescribe provide a convenient way of descriptive statistics.

fundescribe *A Convenient Way of Descriptive Statistics*

Description

This function can perform descriptive statistics according to different data types.

Usage

```
fundescribe(x, y, data = NULL, na.rm = TRUE)
```

Arguments

x	The variable to be statistically described.
y	An optional variable need to be a factor, or a character, or a logical vector.
data	An optional parameter, the name of the data containing x and y.
na.rm	An optional parameter, if FALSE, the information of NA will be given.

Details

This function can perform descriptive statistics according to different data types. If the data is a continuous variable, the mean and standard deviation or median and quartile are automatically output; if the data is a categorical variable, the number and percentage are automatically output. In addition, if you enter two variables, the first variable will be described hierarchically based on the second variable and the statistical differences between different groups will be compared using appropriate statistical methods. And for groups more than two, the post hoc test will be applied.

Value

No return value, called for side effects.

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- Libiseller, C. and Grimvall, A. (2002) Performance of partial Mann-Kendall tests for trend detection in the presence of covariates. *Environmetrics*, 13, 71-84. doi: [10.1002/env.507](https://doi.org/10.1002/env.507).
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Examples

```
data(T2D)
fundescribe(T2D$age)
fundescribe(gender, data = T2D)
fundescribe(education, diabetes, data = T2D)
fundescribe(T2D$glucose, T2D$diabetes)
```

T2D

A data for 20 diabetes patients

Description

A data for 20 diabetes patients. The data were fabricated.

Usage

T2D

Format

A data.frame contains 20 obs of 8 variables. The variables are:

ID The ID of these 20 people.

gender A character ("F" and "M").

age A numeric.

education A ordered factor ("1"<"2"<"3"<"4").

marriage A logical.

smoke A factor (0: "never smoker", 1: "current smoker", 2: "ex-smoker").

glucose A numeric.

diabetes A factor (0: "normal people", 1: "patient").

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* **datasets**

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