

Package ‘POFIBGE’

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Type Package

Title Downloading, Reading and Analysing POF Microdata

Version 0.1.0

Description Provides tools for downloading, reading, and analysing the POF household survey from Brazilian Institute of Geography and Statistics - IBGE. The data must be downloaded from the official website <<https://www.ibge.gov.br/>>. Further analyses must be made using package 'survey'.

Depends R (>= 3.2.0)

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get_pof	<i>Download, label, deflate and create survey design object for POF microdata</i>
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Description

Core function of package. With this function only, the user can download a POF microdata from a year and get a sample design object ready to use with survey package functions.

Usage

```
get_pof(
  year,
  selected = FALSE,
  anthropometry = FALSE,
  vars = NULL,
  labels = TRUE,
  deflator = TRUE,
  design = TRUE,
  savedir = tempdir()
)
```

Arguments

year	The year of the data to be downloaded. Must be a number equal to 2008 or 2017. Vector not accepted.
selected	Logical value. If TRUE, the specific questionnaire for selected resident will be used. If FALSE, the basic questionnaire for household and residents will be used.
anthropometry	Logical value. If TRUE, the specific questionnaire for the anthropometry module of the selected resident will be used. If FALSE, the questionnaire defined by the argument selected of this function will be used. This argument will be used only if year is equal to 2017.
vars	Vector of variable names to be kept for analysis. Default is to keep all variables.
labels	Logical value. If TRUE, categorical variables will be presented as factors with labels corresponding to the survey's dictionary.
deflator	Logical value. If TRUE, deflator variable will be available for use in the microdata.
design	Logical value. If TRUE, will return an object of class survey.design. It is strongly recommended to keep this parameter as TRUE for further analysis. If FALSE, only the microdata will be returned.
savedir	Directory to save the downloaded data. Default is to use a temporary directory.

Value

An object of class `survey.design` with the data from POF and its sample design, or a tibble with selected variables of the microdata, including the necessary survey design ones.

Note

For more information, visit the survey official website <<https://www.ibge.gov.br/estatisticas/sociais/trabalho/9050-pesquisa-de-orcamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[read_pof](#) for reading POF microdata.
[pof_labeller](#) for labelling categorical variables from POF microdata.
[pof_deflator](#) for adding deflator variable to POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF example files.

Examples

```
pof.svy <- get_pof(year=2017, selected=FALSE, anthropometry=FALSE, vars=c("V0406", "V0407", "V0408"),
  labels=TRUE, deflator=TRUE, design=TRUE, savedir=tempdir())
survey::svymean(x=~V0408, design=pof.svy, na.rm=TRUE)
pof.svy2 <- get_pof(year=2017, selected=TRUE, anthropometry=FALSE, vars=c("V4104", "V4105"),
  labels=TRUE, deflator=TRUE, design=TRUE, savedir=tempdir())
survey::svymean(x=~V4104, design=pof.svy2, na.rm=TRUE)
pof.svy3 <- get_pof(year=2017, selected=FALSE, anthropometry=TRUE, vars=c("V4104", "V4105"),
  labels=TRUE, deflator=TRUE, design=TRUE, savedir=tempdir())
survey::svymean(x=~V4104, design=pof.svy3, na.rm=TRUE)
```

pof_deflator

Add deflator variable to POF microdata

Description

This function adds deflator variable to POF microdata. For deflation of income variables, the documentation provided through the following address must be used: ftp://ftp.ibge.gov.br/POF/Documentacao_Geral/POFIBGE_I

Usage

```
pof_deflator(data_pof, deflator.file)
```

Arguments

`data_pof` A tibble of POF microdata read with `read_pof` function.
`deflator.file` The deflator file for selected survey available on official website: (select the deflator zip file) - ftp://ftp.ibge.gov.br/POF/Documentacao_Geral/.

Value

A tibble with the data provided from POF survey and the deflator variable added for use.

Note

For more information, visit the survey official website <<https://www.ibge.gov.br/estatisticas/sociais/trabalho/9050-pesquisa-de-orcamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[get_pof](#) for downloading, labelling, deflating and creating survey design object for POF microdata.

[read_pof](#) for reading POF microdata.

[pof_labeller](#) for labelling categorical variables from POF microdata.

[pof_design](#) for creating POF survey design object.

[pof_example](#) for getting the path of the POF example files.

Examples

```
# Using data read from disk
input_path <- pof_example(path="input_example.txt")
data_path <- pof_example(path="exampledata.txt")
dictionary.path <- pof_example(path="dictionaryexample.xls")
deflator.path <- pof_example(path="deflatorexample.xls")
pof.df <- read_pof(microdata=data_path, input_txt=input_path, vars="V0408")
pof.df <- pof_labeller(data_pof=pof.df, dictionary.file=dictionary.path)
pof.df <- pof_deflator(data_pof=pof.df, deflator.file=deflator.path)

# Downloading data
pof.df2 <- get_pof(year=2017, selected=FALSE, anthropometry=FALSE, vars="V0408",
                  labels=TRUE, deflator=FALSE, design=FALSE, savedir=tempdir())
deflator.path2 <- pof_example(path="deflatorexample.xls")
pof.df2 <- pof_deflator(data_pof=pof.df2, deflator.file=deflator.path2)
```

pof_design

Create POF survey object with its sample design

Description

This function creates POF survey object with its sample design for analysis using survey package functions.

Usage

```
pof_design(data_pof)
```

Arguments

`data_pof` A tibble of POF microdata read with `read_pof` function.

Value

An object of class `survey.design` with the data from POF and its sample design.

Note

For more information, visit the survey official website <<https://www.ibge.gov.br/estatisticas/sociais/trabalho/9050-pesquisa-de-orcamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[get_pof](#) for downloading, labelling, deflating and creating survey design object for POF microdata.
[read_pof](#) for reading POF microdata.
[pof_labeller](#) for labelling categorical variables from POF microdata.
[pof_deflator](#) for adding deflator variable to POF microdata.
[pof_example](#) for getting the path of the POF example files.

Examples

```
# Using data read from disk
input_path <- pof_example(path="input_example.txt")
data_path <- pof_example(path="exampledata.txt")
dictionary.path <- pof_example(path="dictionaryexample.xls")
deflator.path <- pof_example(path="deflatorexample.xls")
pof.df <- read_pof(microdata=data_path, input_txt=input_path, vars="V0408")
pof.df <- pof_labeller(data_pof=pof.df, dictionary.file=dictionary.path)
pof.df <- pof_deflator(data_pof=pof.df, deflator.file=deflator.path)

pof.svy <- pof_design(data_pof=pof.df)
# Calculating expenses or acquisitions rate
survey::svymean(x=~V0408, design=pof.svy, na.rm=TRUE)

# Downloading data
pof.df2 <- get_pof(year=2017, selected=FALSE, anthropometry=FALSE, vars="V0408",
                 labels=TRUE, deflator=TRUE, design=FALSE, savedir=tempdir())
pof.svy2 <- pof_design(data_pof=pof.df2)
# Calculating expenses or acquisitions rate
survey::svymean(x=~V0408, design=pof.svy2, na.rm=TRUE)
```

pof_example

Get the path of the POF example files

Description

This function provides the path of the POF example files, loaded with this package.

Usage

```
pof_example(path = NULL)
```

Arguments

`path` Name of file. If NULL, the POF example files names will be listed.

Value

A vector with names of all the available POF example files or the path for specific requested POF example file.

Note

For more information, visit the survey official website <<https://www.ibge.gov.br/estatisticas/sociais/trabalho/9050-pesquisa-de-orcamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[get_pof](#) for downloading, labelling, deflating and creating survey design object for POF microdata.
[read_pof](#) for reading POF microdata.
[pof_labeller](#) for labelling categorical variables from POF microdata.
[pof_deflator](#) for adding deflator variable to POF microdata.
[pof_design](#) for creating POF survey design object.

Examples

```
pof_example()  
pof_example(path="exampledata.txt")  
pof_example(path="input_example.txt")  
pof_example(path="dictionaryexample.xls")  
pof_example(path="deflatorexample.xls")
```

pof_labeller	<i>Label categorical variables from POF microdata</i>
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Description

This function labels categorical variables from POF microdata.

Usage

```
pof_labeller(data_pof, dictionary.file)
```

Arguments

`data_pof` A tibble of POF microdata read with `read_pof` function.
`dictionary.file`

The dictionary file for selected survey available on official website: (select the dictionary and input zip file, according to the appropriated select the dictionary and input zip file, according to the appropriated year, microdata folder and then, inside, documentation) - <ftp://ftp.ibge.gov.br/POF/>.

Value

A tibble with the data provided from POF survey and its categorical variables as factors with related labels.

Note

For more information, visit the survey official website <<https://www.ibge.gov.br/estatisticas/sociais/trabalho/9050-pesquisa-de-orcamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[get_pof](#) for downloading, labelling, deflating and creating survey design object for POF microdata.
[read_pof](#) for reading POF microdata.
[pof_deflator](#) for adding deflator variable to POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF example files.

Examples

```
# Using data read from disk
input_path <- pof_example(path="input_example.txt")
data_path <- pof_example(path="exampledata.txt")
dictionary.path <- pof_example(path="dictionaryexample.xls")
pof.df <- read_pof(microdata=data_path, input_txt=input_path, vars="V0408")
pof.df <- pof_labeller(data_pof=pof.df, dictionary.file=dictionary.path)
```

```
# Downloading data
pof.df2 <- get_pof(year=2017, selected=FALSE, anthropometry=FALSE, vars="V0408",
                  labels=FALSE, deflator=FALSE, design=FALSE, savedir=tempdir())
dictionary.path2 <- pof_example(path="dictionaryexample.xls")
pof.df2 <- pof_labeller(data_pof=pof.df2, dictionary.file=dictionary.path2)
```

read_pof	<i>Read POF microdata</i>
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Description

This function reads POF microdata.

Usage

```
read_pof(microdata, input_txt, vars = NULL)
```

Arguments

microdata	A text file containing microdata from POF survey, available on official website: (select a microdata file, according to the appropriated select the dictionary and input zip file, according to the appropriated year, microdata folder and then, inside, data) - ftp://ftp.ibge.gov.br/POF/ .
input_txt	A text file, related to the microdata, containing the input script for SAS, available on official website: (select the dictionary and input zip file, according to the appropriated select the dictionary and input zip file, according to the appropriated year, microdata folder and then, inside, documentation) - ftp://ftp.ibge.gov.br/POF/ .
vars	Vector of variable names to be kept for analysis. Default is to keep all variables.

Value

A tibble with selected variables of the microdata, including the necessary survey design ones.

Note

For more information, visit the survey official website <<https://www.ibge.gov.br/estatisticas/sociais/trabalho/9050-pesquisa-de-orcamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[get_pof](#) for downloading, labelling, deflating and creating survey design object for POF microdata.
[pof_labeller](#) for labelling categorical variables from POF microdata.
[pof_deflator](#) for adding deflator variable to POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF example files.

Examples

```
input_path <- pof_example(path="input_example.txt")  
data_path <- pof_example(path="exampledata.txt")  
pof.df <- read_pof(microdata=data_path, input_txt=input_path, vars="V0408")
```

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