

Package ‘POFIBGE’

March 24, 2022

Type Package

Title Downloading, Reading and Analyzing POF Microdata - Package in Development

Version 0.1.6

Description Provides tools for downloading, reading and analyzing the POF, a 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 analysis must be made using package 'survey'.

Depends R (>= 3.2.0)

Imports dplyr, httr, magrittr, projmgr, RCurl, readr, readxl, survey, tibble, timeDate, utils

Suggests convey, lavaan.survey, srvyr, surf, tidyverse

License GPL-3

Encoding UTF-8

RoxygenNote 7.1.2

NeedsCompilation no

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BugReports <https://github.com/Gabriel-Assuncao/POFIBGE/issues>

Repository CRAN

Date/Publication 2022-03-24 19:00:02 UTC

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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 presented as factors with labels corresponding to the survey's dictionary.
deflator	Logical value. If TRUE, deflator variables will be available for use in the microdata.
design	Logical value. If TRUE, will return an object of class <code>survey.design</code> or <code>svyrep.design</code> . 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` or `svyrep.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 labeling categorical variables from POF microdata.
[pof_deflator](#) for adding deflator variables to POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF toy example files.

Examples

```
pof.svy <- get_pof(year=2017, selected=FALSE, anthropometry=FALSE, vars=c("V0407", "V0408"),
  labels=TRUE, deflator=TRUE, design=TRUE, savedir=tempdir())
# Calculating proportion of people's purchase of goods or services
if (!is.null(pof.svy)) 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())
# Calculating proportion of reasons for non-routine trips indicated by people
if (!is.null(pof.svy2)) survey::svymean(x=~V4104, design=pof.svy2, na.rm=TRUE)
pof.svy3 <- get_pof(year=2017, selected=FALSE, anthropometry=TRUE, vars=c("V7102", "V7104"),
  labels=TRUE, deflator=TRUE, design=TRUE, savedir=tempdir())
# Calculating proportion of people who followed some type of diet
if (!is.null(pof.svy3)) survey::svymean(x=~V7104, design=pof.svy3, na.rm=TRUE)
```

pof_deflator

Add deflator variables to POF microdata

Description

This function adds deflator variables to POF microdata. For deflation of income variables, the documentation provided through the following address must be used: (see the file 'POFIBGE_Deflator.pdf' at the general documentation folder) - https://ftp.ibge.gov.br/Orcamentos_Familiares/.

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 at the general documentation folder) - https://ftp.ibge.gov.br/Orcamentos_Familiares/.

Value

A tibble with the data provided from POF survey and the deflator variables 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, labeling, deflating and creating survey design object for POF microdata.
[read_pof](#) for reading POF microdata.
[pof_labeller](#) for labeling categorical variables from POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF toy 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=c("V0407", "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=c("V0407", "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` or `svyrep.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, labeling, deflating and creating survey design object for POF microdata.

[read_pof](#) for reading POF microdata.

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

[pof_deflator](#) for adding deflator variables to POF microdata.

[pof_example](#) for getting the path of the POF toy 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=c("V0407", "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 proportion of people's purchase of goods or services
if (!is.null(pof.svy)) survey::svymean(x=~V0408, design=pof.svy, na.rm=TRUE)

# Downloading data
pof.df2 <- get_pof(year=2017, selected=FALSE, anthropometry=FALSE, vars=c("V0407", "V0408"),
  labels=TRUE, deflator=TRUE, design=FALSE, savedir=tempdir())
pof.svy2 <- pof_design(data_pof=pof.df2)
# Calculating proportion of people's purchase of goods or services
if (!is.null(pof.svy2)) survey::svymean(x=~V0408, design=pof.svy2, na.rm=TRUE)
```

pof_example

Get the path of the POF toy example files

Description

This function provides the path of the microdata from year 2017-2018 of the POF toy example files, loaded with this package.

Usage

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

Arguments

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

Value

A vector with names of all the available POF toy example files or the path for specific requested POF toy 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, labeling, deflating and creating survey design object for POF microdata.

[read_pof](#) for reading POF microdata.

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

[pof_deflator](#) for adding deflator variables 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) - https://ftp.ibge.gov.br/Orçamentos_Familiares/ .

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-orçamentos-familiares.html?=&t=o-que-e>> and consult the other functions of this package, described below.

See Also

[get_pof](#) for downloading, labeling, deflating and creating survey design object for POF microdata.
[read_pof](#) for reading POF microdata.
[pof_deflator](#) for adding deflator variables to POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF toy 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=c("V0407", "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=c("V0407", "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) - https://ftp.ibge.gov.br/Orcamentos_Familiares/ .
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) - https://ftp.ibge.gov.br/Orcamentos_Familiares/ .
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, labeling, deflating and creating survey design object for POF microdata.
[pof_labeller](#) for labeling categorical variables from POF microdata.
[pof_deflator](#) for adding deflator variables to POF microdata.
[pof_design](#) for creating POF survey design object.
[pof_example](#) for getting the path of the POF toy 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=c("V0407", "V0408"))
```

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