Package 'brpop'

October 17, 2024

Title Brazilian Population Estimatives

Version 0.5.0

Description Functions to handle and aggregate population estimates for Brazilian municipalities by sex and age groups.

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.3.2

Depends R (>= 2.10)

LazyData true

LazyDataCompression xz

Suggests testthat (>= 3.0.0), ggplot2, scales

Config/testthat/edition 3

Imports checkmate, data.table, dplyr, dtplyr, magrittr, rlang, tibble, zendown

URL https://rfsaldanha.github.io/brpop/

BugReports https://github.com/rfsaldanha/brpop/issues

Config/Needs/website rmarkdown

NeedsCompilation no

Author Raphael Saldanha [aut, cre] (<https://orcid.org/0000-0003-0652-8466>)

Maintainer Raphael Saldanha <raphael.de-freitas-saldanha@inria.fr>

Repository CRAN

Date/Publication 2024-10-17 16:50:05 UTC

Contents

datasus_mun_female_pop

Municipality yearly female population estimates per age group from 2000 to 2021

Description

A dataset containing female population estimates for Brazilian municipalities per age groups from 2000 to 2021.

Usage

```
datasus_mun_female_pop()
```

Details

The estimates were computed by DataSUS (Brazilian Ministry of Health), manually downloaded from DataSUS website, and organized as a tibble.

code_muni municipality 6 digits code

year year of the estimative

age_group age group

pop population estimative

| datasus_mun_male_pop | *Municipality yearly male population estimates per age group from 2000 to 2021* |

Description

A dataset containing male population estimates for Brazilian municipalities per age groups from 2000 to 2021.

Usage

```
datasus_mun_male_pop()
```

Details

The estimates were computed by DataSUS (Brazilian Ministry of Health), manually downloaded from DataSUS website, and organized as a tibble.

code_muni municipality 6 digits code

year year of the estimative

age_group age group

pop population estimative

| ibge_pop | *Municipality population from IBGE estimates, Census and population inquiries from 2000 to 2024* |

Description

A dataset containing total population estimates for Brazilian municipalities from IBGE estimates, Census and population inquiries. This dataset does not contain breakdowns by age groups or sex.

Usage

```
ibge_pop()
```

Details

The population data was downloaded from the IBGE's SIDRA service and IBGE's FTP server.

Population data for the years of 2000 and 2010 were obtained from Census, SIDRA table 202 (https://sidra.ibge.gov.br/Tabela/202).

Population data for the year of 2022 was obtained from Census, SIDRA table 9514 (https://sidra.ibge.gov.br/Tabela/9514).

Population data for the year of 2007 was obtained from Population Inquiry, SIDRA table 793 (https://sidra.ibge.gov.br/Tabela/793).

Population data for the years of 2001 to 2006, 2008, 2009, 2011 to 2021 were obtained from Population Inquiry, SIDRA table 6579 (https://sidra.ibge.gov.br/Tabela/6579), including update from 2024-06-24.

Population data for 2023 are the IBGE estimates sent to TCU (https://www.ibge.gov.br/estatisticas/sociais/populacao/37734-relacao-da-populacao-dos-municipios-para-publicacao-no-tcu.html). The values are equal to Census 2022.

Population data for 2024 are the IBGE estimates sent to DOU (https://www.ibge.gov.br/estatisticas/sociais/populacao/9103-estimativas-de-populacao.html).

code_muni municipality 7 digits code

year year

pop population

---

mun_female_pop_totals   *Municipality yearly female population estimates totals*

Description

This function provides a tibble containing female population estimates for Brazilian municipalities totals.

Usage

```
mun_female_pop_totals(source = "datasus")
```

Arguments

source   character. datasus for Brazilian Health Ministry estimates, or ufrn for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

datasus_mun_female_pop, ufrn_mun_female_pop.

---

mun_male_pop_totals   *Municipality yearly male population estimates totals*

Description

This function provides a tibble containing male population estimates for Brazilian municipalities totals.

Usage

```
mun_male_pop_totals(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

[datasus_mun_male_pop,](#) [ufrn_mun_male_pop.](#)

---

mun_pop_age   *Municipality yearly population estimates per age group*

Description

This function provides a tibble containing population estimates for Brazilian municipalities per age groups.

Usage

```
mun_pop_age(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates, `ufrn` for UFRN-DEM-LEPP estimates, `avg` for an average between both.

Value

A tibble.

See Also

datasus_mun_male_pop, datasus_mun_female_pop, ufrn_mun_male_pop, ufrn_mun_female_pop.

---

mun_pop_totals   *Municipality yearly population totals*

Description

This function provides a tibble containing total population estimates for Brazilian municipalities.

Usage

```
mun_pop_totals(source = "datasus")
```

Arguments

source   character. datasus for Brazilian Health Ministry estimates (2000 to 2021), ufrn
                  for UFRN-DEM-LEPP estimates (2010 to 2030), or ibge for IBGE estimates
                  (2000 to 2022).

Value

A tibble.

See Also

datasus_mun_male_pop, datasus_mun_female_pop, ufrn_mun_male_pop, ufrn_mun_female_pop,
ibge_pop.

---

mun_reg_saude   *Municipality and health region code table*

Description

A dataset containing municipality and health regions codes. #'

Usage

```
mun_reg_saude
```

Format

A tibble with 5,597 rows and 2 variables:

code_muni municipality 6 digits code

cod_reg_saude health region 4 digits code

---

mun_reg_saude_449   *Municipality and health region (449) code table*

Description

A dataset containing municipality and health regions codes, following the 449 units specification.
#'

Usage

```
mun_reg_saude_449
```

Format

A tibble with 5,597 rows and 2 variables:

code_muni municipality 6 digits code

cod_reg_saude health region 5 digits code

---

mun_sex_pop   *Municipality yearly population estimates per age group and sex*

Description

This function binds municipality male and female estimates and includes a new variable called 'sex'.

Usage

```
mun_sex_pop(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

datasus_mun_male_pop, datasus_mun_female_pop, ufrn_mun_male_pop, ufrn_mun_female_pop.

regsaude_female_pop   *Health region yearly female population estimates per age group*

Description

This function provides a tibble containing female population estimates for Brazilian health regions per age groups.

Usage

```
regsaude_female_pop(type = "standard", source = "datasus")
```

Arguments

type	character. 'standard' or 'reg_saude_449'
source	character. datasus for Brazilian Health Ministry estimates, or ufrn for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

[datasus_mun_female_pop](), [ufrn_mun_female_pop]().

regsaude_female_pop_totals

Health region yearly female population estimates totals

Description

This function provides a tibble containing female population estimates for Brazilian health regions totals.

Usage

```
regsaude_female_pop_totals(type = "standard", source = "datasus")
```

Arguments

type	character. 'standard' or 'reg_saude_449'
source	character. datasus for Brazilian Health Ministry estimates, or ufrn for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

regsaude_female_pop.

---

regsaude_male_pop *Health region yearly male population estimates per age group*

Description

This function provides a tibble containing male population estimates for Brazilian health regions per age groups.

Usage

```
regsaude_male_pop(type = "standard", source = "datasus")
```

Arguments

type   character. 'standard' or 'reg_saude_449'

source   character. datasus for Brazilian Health Ministry estimates, or ufrn for UFRN-
                DEM-LEPP estimates.

Value

A tibble.

See Also

datasus_mun_male_pop, ufrn_mun_male_pop.

---

regsaude_male_pop_totals

Health region yearly male population estimates totals

Description

This function provides a tibble containing male population estimates for Brazilian health regions totals.

Usage

```
regsaude_male_pop_totals(type = "standard", source = "datasus")
```

Arguments

type   character. 'standard' or 'reg_saude_449'

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-
                DEM-LEPP estimates.

Value

A tibble.

See Also

regsaude_male_pop.

---

regsaude_pop_age   *Health region yearly population estimates per age group*

Description

This function provides a tibble containing population estimates for Brazilian health regions per age groups.

Usage

```
regsaude_pop_age(type = "standard", source = "datasus")
```

Arguments

type   character. 'standard' or 'reg_saude_449'

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-
                DEM-LEPP estimates.

Value

A tibble.

See Also

regsaude_male_pop, regsaude_female_pop.

---

regsaude_pop_totals *Health region yearly total population estimates*

Description

This function provides a tibble containing total population estimates for Brazilian health regions.

Usage

```
regsaude_pop_totals(type = "standard", source = "datasus")
```

Arguments

type   character. 'standard' or 'reg_saude_449'

source   character. datasus for Brazilian Health Ministry estimates (2000 to 2021), ufrn
                for UFRN-DEM-LEPP estimates (2010 to 2030), or ibge for IBGE estimates
                (2000 to 2022).

Value

A tibble.

See Also

regsaude_male_pop, regsaude_female_pop, ibge_pop.

---

regsaude_sex_pop *Health regions yearly population estimates per age group and sex*

Description

This function binds UF male and female datasets (uf_male_pop and uf_female_pop), aggregates estimatives by health regions and includes a new variable called 'sex'.

Usage

```
regsaude_sex_pop(type = "standard", source = "datasus")
```

Arguments

type   character. 'standard' or 'reg_saude_449'

source   character. datasus for Brazilian Health Ministry estimates, or ufrn for UFRN-
                DEM-LEPP estimates.

Value

A tibble.

See Also

[regsaude_male_pop](), [regsaude_female_pop]().

---

ufrn_mun_female_pop	*Municipality yearly female population estimates per age group, from 2010 to 2030*

Description

A dataset containing male population estimates for Brazilian municipalities per age groups from 2010 to 2030.

Usage

```
ufrn_mun_female_pop()
```

Details

The estimates were computed by the LEPP laboratory from the Demography Department/UFRN.

code_muni municipality 6 digits code

year year of the estimative

age_group age group

pop population estimative

References

FREIRE, F.H.M.A; GONZAGA, M.R; QUEIROZ, B.L. Projeção populacional municipal com estimadores bayesianos, Brasil 2010 - 2030. In: Sawyer, D.O (coord.). Seguridade Social Municipais. Projeto Brasil 3 Tempos. Secretaria Especial de Assuntos Estratégicos da Presidência da República (SAE/SG/PR) , United Nations Development Programme, Brazil (UNDP) and International Policy Centre for Inclusive Growth. Brasília (IPC-IG), 2019.

---

ufrn_mun_male_pop   *Municipality yearly male population estimates per age group, from 2010 to 2030*

Description

A dataset containing male population estimates for Brazilian municipalities per age groups from 2010 to 2030.

Usage

```
ufrn_mun_male_pop()
```

Details

The estimates were computed by the LEPP laboratory from the Demography Department/UFRN.

code_muni municipality 6 digits code

year year of the estimative

age_group age group

pop population estimative

References

FREIRE, F.H.M.A; GONZAGA, M.R; QUEIROZ, B.L. Projeção populacional municipal com estimadores bayesianos, Brasil 2010 - 2030. In: Sawyer, D.O (coord.). Seguridade Social Municipais. Projeto Brasil 3 Tempos. Secretaria Especial de Assuntos Estratégicos da Presidência da República (SAE/SG/PR) , United Nations Development Programme, Brazil (UNDP) and International Policy Centre for Inclusive Growth. Brasília (IPC-IG), 2019.

---

uf_female_pop_totals   *UF yearly female population estimates totals*

Description

This function provides a tibble containing female population estimates for Brazilian UFs ("Unidades Federativas") totals.

Usage

```
uf_female_pop_totals(source = "datasus")
```

Arguments

source   character. datasus for Brazilian Health Ministry estimates, or ufrn for UFRN-
                DEM-LEPP estimates.

Value

A tibble.

See Also

[datasus_mun_female_pop](), [ufrn_mun_female_pop]().

---

uf_male_pop_totals   *UF yearly male population estimates totals*

Description

This function provides a tibble containing male population estimates for Brazilian UFs ("Unidades Federativas") totals.

Usage

```
uf_male_pop_totals(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

[datasus_mun_male_pop](), [ufrn_mun_male_pop]().

---

uf_pop_age   *UF yearly population estimates per age group*

Description

This function provides a tibble containing population estimates for Brazilian UFs ("Unidades Federativas") per age groups.

Usage

```
uf_pop_age(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-
                DEM-LEPP estimates.

Value

A tibble.

See Also

[datasus_mun_male_pop,](#) [datasus_mun_female_pop,](#) [ufrn_mun_male_pop,](#) [ufrn_mun_female_pop.](#)

---

uf_pop_totals   *UF yearly population totals*

Description

This function provides a tibble containing total population estimates for Brazilian UFs ("Unidades
Federativas") totals.

Usage

```
uf_pop_totals(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates (2000 to 2021), `ufrn`
                for UFRN-DEM-LEPP estimates (2010 to 2030), or `ibge` for IBGE estimates
                (2000 to 2022).

Value

A tibble.

See Also

[datasus_mun_male_pop,](#) [datasus_mun_female_pop,](#) [ufrn_mun_male_pop,](#) [ufrn_mun_female_pop,](#)
[ibge_pop.](#)

---

uf_sex_pop   *UF yearly population estimates per age group and sex*

Description

This function binds municipality male and female estimates and includes a new variable called 'sex'.

Usage

```
uf_sex_pop(source = "datasus")
```

Arguments

source   character. `datasus` for Brazilian Health Ministry estimates, or `ufrn` for UFRN-DEM-LEPP estimates.

Value

A tibble.

See Also

[datasus_mun_male_pop,](datasus_mun_male_pop) [datasus_mun_female_pop,](datasus_mun_female_pop) [ufrn_mun_male_pop,](ufrn_mun_male_pop) [ufrn_mun_female_pop.](ufrn_mun_female_pop)

Index