

Package ‘brpop’

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Title Brazilian Population Estimates

Version 0.7.0

Description Provides Brazilian municipality population estimates from official and research sources, with functions to aggregate the data by state, health region, sex, and age group.

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URL <https://rfsaldanha.github.io/brpop/>,
<https://github.com/rfsaldanha/brpop>

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

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

Maintainer Raphael Saldanha <raphael.saldanha@fiocruz.br>

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datasus2024_mun_female_pop
<i>Municipality yearly female population estimates per age group from 2000 to 2024</i>

Description

A dataset containing female population estimates for Brazilian municipalities by age group from 2000 to 2024.

Usage

```
datasus2024_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 7 digits code
- year** year of the estimate
- age_group** age group
- pop** population estimate

datasus2024_mun_male_pop	<i>Municipality yearly male population estimates per age group from 2000 to 2024</i>
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Description

A dataset containing male population estimates for Brazilian municipalities by age group from 2000 to 2024.

Usage

datasus2024_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 7 digits code
- year** year of the estimate
- age_group** age group
- pop** population estimate

`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 by age group 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 estimate

age_group age group

pop population estimate

`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 by age group 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 estimate

age_group age group

pop population estimate

 ibge_pop

Municipality population from IBGE, 2000 to 2025

Description

Municipal total population from the Brazilian Institute of Geography and Statistics (IBGE), combining censuses, the 2007 population count, and annual population estimates. The data do not contain age or sex breakdowns.

Usage

```
ibge_pop()
```

Details

Census values for 2000 and 2010 come from [SIDRA table 202](#), and 2022 values come from [SIDRA table 9514](#). The 2007 population count comes from [SIDRA table 793](#).

Annual estimates for 2001–2006, 2008–2009, and 2011–2021 come from [SIDRA table 6579](#), as updated on 2024-06-24. Values for 2023 are the population figures sent to the TCU using the 2022 Census and 2023 territorial grid, available from the [IBGE 2023 download directory](#). Values for 2024 come from the estimates published in the DOU. Values for 2025 use the revised estimates sent to the TCU on 2026-01-13. The source workbooks are available from the IBGE download directories for [2024](#) and [2025](#).

`ibge_pop()` is bundled with the package and does not require Internet access. Its return structure remains compatible with previous releases.

Value

A tibble with one row per municipality and year.

code_muni numeric municipality code with seven digits

year numeric reference year

pop numeric population; NA when the source reports no value

 mun_female_pop_totals

Municipality yearly female population estimate 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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

mun_male_pop_totals	<i>Municipality yearly male population estimate totals</i>
---------------------	--

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

<code>mun_pop_age</code>	<i>Municipality yearly population estimates per age group</i>
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Description

This function provides a tibble containing population estimates for Brazilian municipalities by age group.

Usage

```
mun_pop_age(source = "datasus", sex = "all")
```

Arguments

- `source` character. `datasus` for Brazilian Health Ministry old estimates (2000 to 2021), `datasus2024` for Brazilian Health Ministry new estimates (2000 to 2024), or `ufrn` for UFRN-DEM-LEPP estimates (2010 to 2030).
- `sex` character. `all` for all population, `male` for male population, `female` for female population. Defaults to `all`.

Value

A tibble.

See Also

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

<code>mun_pop_totals</code>	<i>Municipality yearly population totals</i>
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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 old estimates (2000 to 2021), `datasus2024` for Brazilian Health Ministry new estimates (2000 to 2024), `ufrn` for UFRN-DEM-LEPP estimates (2010 to 2030), or `ibge` for IBGE data (2000 to 2025).

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	<i>Municipality and health region code table</i>
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Description

A dataset containing municipality and health regions codes.

Usage

mun_reg_saude

Format

A tibble with 5,592 rows and 2 variables:

- code_muni** municipality 6 digits code
- codi_reg_saude** health region 4 digits code

Source

The 2025 assignment of Boa Esperança do Norte to the Teles Pires health region is documented by the Mato Grosso State Health Department, CIB/MT Resolution No. 143 of 22 May 2025.

mun_reg_saude_449	<i>Municipality and health region (449) code table</i>
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Description

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

Usage

mun_reg_saude_449

Format

A tibble with 5,571 rows and 2 variables:

code_muni municipality 6 digits code

codi_reg_saude health region 5 digits code

Source

The 2025 assignment of Boa Esperança do Norte to the Teles Pires health region is documented by the Mato Grosso State Health Department, CIB/MT Resolution No. 143 of 22 May 2025.

mun_sex_pop	<i>Municipality yearly population estimates per age group and sex</i>
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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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

regsaude_female_pop	<i>Health region yearly female population estimates per age group</i>
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Description

This function provides a tibble containing female population estimates for Brazilian health regions by age group.

Usage

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

Arguments

type	character. 'standard' or 'reg_saude_449'
source	character. datasus for Brazilian Health Ministry old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

regsaude_female_pop_totals	<i>Health region yearly female population estimate totals</i>
----------------------------	---

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

[regsaude_female_pop](#).

regsaude_male_pop	<i>Health region yearly male population estimates per age group</i>
-------------------	---

Description

This function provides a tibble containing male population estimates for Brazilian health regions by age group.

Usage

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

Arguments

type	character. 'standard' or 'reg_saude_449'
source	character. datasus for Brazilian Health Ministry old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

regsaude_male_pop_totals	<i>Health region yearly male population estimate totals</i>
--------------------------	---

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

[regsaude_male_pop](#).

regsaude_pop_age	<i>Health region yearly population estimates per age group</i>
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Description

This function provides a tibble containing population estimates for Brazilian health regions by age group.

Usage

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

Arguments

type	character. 'standard' or 'reg_saude_449'
source	character. datasus for Brazilian Health Ministry old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).
sex	character. all for all population, male for male population, female for female population. Defaults to all.

Value

A tibble.

See Also

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

regsaude_pop_totals	<i>Health region yearly total population estimates</i>
---------------------	--

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), ufrn for UFRN-DEM-LEPP estimates (2010 to 2030), or ibge for IBGE data (2000 to 2025).

Value

A tibble.

See Also

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

regsaude_sex_pop	<i>Health regions yearly population estimates per age group and sex</i>
------------------	---

Description

This function combines male and female health-region estimates and includes a variable named sex.

Usage

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

Arguments

type	character. 'standard' or 'reg_saude_449'
source	character. datasus for Brazilian Health Ministry old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

ufrn_mun_female_pop	<i>Municipality yearly female population estimates per age group, from 2010 to 2030</i>
---------------------	---

Description

A dataset containing female population estimates for Brazilian municipalities by age group 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 7 digits code
- year** year of the estimate
- age_group** age group
- pop** population estimate

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	<i>Municipality yearly male population estimates per age group, from 2010 to 2030</i>
-------------------	---

Description

A dataset containing male population estimates for Brazilian municipalities by age group 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 7 digits code

year year of the estimate

age_group age group

pop population estimate

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	<i>UF yearly female population estimate totals</i>
----------------------	--

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

uf_male_pop_totals	<i>UF yearly male population estimate totals</i>
--------------------	--

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

uf_pop_age	<i>UF yearly population estimates per age group</i>
------------	---

Description

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

Usage

```
uf_pop_age(source = "datasus", sex = "all")
```

Arguments

source	character. datasus for Brazilian Health Ministry old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).
sex	character. all for all population, male for male population, female for female population. Defaults to all.

Value

A tibble.

See Also

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

uf_pop_totals	<i>UF yearly population totals</i>
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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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), ufrn for UFRN-DEM-LEPP estimates (2010 to 2030), or ibge for IBGE data (2000 to 2025).

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	<i>UF yearly population estimates per age group and sex</i>
------------	---

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 old estimates (2000 to 2021), datasus2024 for Brazilian Health Ministry new estimates (2000 to 2024), or ufrn for UFRN-DEM-LEPP estimates (2010 to 2030).

Value

A tibble.

See Also

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

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