

Package ‘electedBR’

October 6, 2026

Title Brazilian Election Winners and Sitting Members of Congress

Version 0.1.0

Description Retrieves the candidates elected in Brazilian municipal and general elections since 2018, consolidated from the open data of the Superior Electoral Court (TSE, <<https://dadosabertos.tse.jus.br/>>) and distributed as yearly Parquet files, together with the federal deputies and senators currently serving according to the open data APIs of the Chamber of Deputies (<<https://dadosabertos.camara.leg.br/>>) and the Federal Senate (<<https://www12.senado.leg.br/dados-abertos>>). Election results and current office holding are kept as distinct queries; electoral roles, service history and provenance are preserved. Every function returns a tibble with English column names and has a Portuguese alias.

License GPL-3

URL <https://github.com/StrategicProjects/electedBR>,
<https://strategicprojects.github.io/electedBR/>

BugReports <https://github.com/StrategicProjects/electedBR/issues>

Encoding UTF-8

Language en-US

LazyData true

Depends R (>= 4.1.0)

Imports dplyr (>= 1.1.0), httr2 (>= 1.0.0), nanoparquet, rlang,
tibble, tools, utils

Suggests knitr, rmarkdown, testthat (>= 3.0.0), withr

Config/testthat/edition 3

VignetteBuilder knitr

Config/roxygen2/version 8.0.0

NeedsCompilation no

Author Andre Leite [aut, cre] (ORCID: <<https://orcid.org/0000-0002-4718-9766>>),
Marcos Wasiliew [aut] (ORCID: <<https://orcid.org/0009-0004-4694-3159>>),
Hugo Vasconcelos [aut] (ORCID: <<https://orcid.org/0000-0001-6249-0920>>),

Carlos Amorim [aut] (ORCID: <<https://orcid.org/0000-0001-6315-8305>>),
Diogo Bezerra [aut] (ORCID: <<https://orcid.org/0000-0002-1216-8674>>)

Maintainer Andre Leite <leite@castlab.org>

Repository CRAN

Date/Publication 2026-10-06 15:20:02 UTC

Contents

elected_cache_dir	2
elected_clear_cache	3
elected_years	4
get_deputies	5
get_elected	7
get_officeholding_events	10
get_service_history	12
normalize_elected	13
Index	15

elected_cache_dir	<i>Cache directory</i>
-------------------	------------------------

Description

Directory where the yearly election files, the parliamentary tables and their snapshots are stored. By default it is a folder under the session’s `tempdir()`, so nothing persists between sessions and nothing is written outside the temporary directory unless you opt in. To keep the files between sessions, set the environment variable `ELECTEDBR_CACHE_DIR` or the option `electedBR.cache_dir` (for example to `tools::R_user_dir("electedBR", "cache")`), or pass `cache_dir` to each function. The precedence is: the `cache_dir` argument, then the environment variable, then the option, then `tempdir()`.

Usage

```
elected_cache_dir(path = NULL)

diretorio_cache_eleitos(caminho = NULL)
```

Arguments

path	Optional directory; when given, it is returned (created if needed) instead of the default resolution.
caminho	Portuguese alias of path.

Details

The parliamentary functions also keep a snapshot of every completed collection under `cache_dir/snapshots/`; with a persistent cache these accumulate and can be removed with [elected_clear_cache\(\)](#).

Value

The cache directory path, created if needed, invisibly.

Examples

```
elected_cache_dir()
old <- Sys.getenv("ELECTEDBR_CACHE_DIR", unset = NA)
Sys.setenv(ELECTEDBR_CACHE_DIR = file.path(tempdir(), "electedBR-persistent"))
elected_cache_dir()
if (is.na(old)) Sys.unsetenv("ELECTEDBR_CACHE_DIR") else
  Sys.setenv(ELECTEDBR_CACHE_DIR = old)
```

elected_clear_cache	<i>Remove cached files</i>
---------------------	----------------------------

Description

Deletes the yearly election files, the cached parliamentary tables and the snapshots stored in `cache_dir`. The next query downloads them again.

Usage

```
elected_clear_cache(cache_dir = elected_cache_dir())

limpar_cache_eleitos(cache_dir = elected_cache_dir())
```

Arguments

`cache_dir` Cache directory; see [elected_cache_dir\(\)](#).

Value

The number of files removed, invisibly.

Examples

```
dir <- file.path(tempdir(), "electedBR-example")
dir.create(dir)
writeLines("x", file.path(dir, "elected_2024.parquet"))
elected_clear_cache(dir)
```

elected_years	<i>Yearly files of elected candidates</i>
---------------	---

Description

Index of the Parquet files distributed by the package, one per election year, with the URL they are downloaded from and the checksums used to verify the download. Used internally by `get_elected()`; the host can be overridden with the `electedBR.base_url` option or the `base_url` argument.

Usage

```
elected_years
```

Format

A data frame with one row per year and the columns:

year Election year.

kind "municipal" (mayors, deputy mayors and councilors) or "general" (senators and federal, state and district deputies).

file File name (for example `elected_2024.parquet`).

url Download URL of the file.

bytes File size in bytes, used to check the download.

md5 MD5 checksum of the file.

rows Number of rows (elected candidates plus alternates).

built Date on which the file was generated from the TSE data.

Details

Each file is the output of `normalize_elected()` with `include_alternates = TRUE` applied to the TSE *votação nominal por município e zona* dataset of that year, so it holds both the elected candidates and the alternates classified in the TSE file.

Source

Derived from the TSE open data portal, <https://dadosabertos.tse.jus.br/>; files hosted at <https://huggingface.co/datasets/mlkwy/electedBR>.

Examples

```
elected_years
```

get_deputies	<i>Federal deputies and senators currently serving</i>
--------------	--

Description

Retrieves the members of the Chamber of Deputies and of the Federal Senate currently in service, from the open data APIs of each house. The lists include alternates who are serving; `mandate_role` tells principals and alternates apart, independently of the service status. Election results are a different question, answered by [get_elected\(\)](#).

Usage

```
get_deputies(  
  state = NULL,  
  party = NULL,  
  status = "serving",  
  role = NULL,  
  refresh = FALSE,  
  max_age_hours = 6,  
  cache_dir = elected_cache_dir()  
)
```

```
get_senators(  
  state = NULL,  
  party = NULL,  
  status = "serving",  
  role = NULL,  
  refresh = FALSE,  
  max_age_hours = 6,  
  cache_dir = elected_cache_dir()  
)
```

```
consultar_deputados(  
  uf = NULL,  
  partido = NULL,  
  situacao = "em_exercicio",  
  condicao = NULL,  
  atualizar = FALSE,  
  validade_horas = 6,  
  cache_dir = elected_cache_dir()  
)
```

```
consultar_senadores(  
  uf = NULL,  
  partido = NULL,  
  situacao = "em_exercicio",  
  condicao = NULL,
```

```

    atualizar = FALSE,
    validade_horas = 6,
    cache_dir = elected_cache_dir()
  )

```

Arguments

state	Two-letter state abbreviations; NULL keeps every state.
party	Party abbreviations (current affiliation).
status	Only "serving" is supported.
role	NULL, or one or more of "principal", "alternate" and "unknown".
refresh	Logical. Collect again even if a fresh cache exists.
max_age_hours	Maximum age of the cache, in hours (default six).
cache_dir	Cache directory; see elected_cache_dir() .
uf, partido, situacao, condicao, atualizar, validade_horas	Portuguese aliases of state, party, status ("em_exercicio"), role ("titular", "suplente", "desconhecido"), refresh and max_age_hours.

Details

The Chamber list is paginated and the electoral condition of each deputy comes from a detail request per deputy, so the first call without state issues several hundred requests; results are cached for max_age_hours hours in cache_dir, and every completed collection is also kept as an immutable snapshot under cache_dir/snapshots/. A network or schema failure raises an error rather than silently returning expired data.

Value

A tibble with the columns person_id, source_id, name, state, office, current_party, mandate_id, mandate_role, mandate_role_raw, exercise_status, exercise_status_raw, exercise_start, exercise_end, status_recorded_at, source_updated_at, source, reference and retrieved_at. Columns ending in _raw keep the label used by the source; person_id is namespaced (camara:204379, senado:5322) and is not a TSE identifier.

See Also

[get_service_history\(\)](#) for the status records and service periods of one member.

Examples

```

get_senators(state = "PE", cache_dir = tempdir())
get_deputies(state = c("PE", "PB"), role = "alternate", cache_dir = tempdir())
consultar_senadores(uf = "PE", cache_dir = tempdir())

```

get_elected

Candidates elected in Brazilian elections

Description

Returns the candidates elected (and optionally the alternates) in a Brazilian election year, from the yearly files derived from the TSE open data and hosted by the package (see [elected_years](#)). Municipal offices (mayor, vice mayor, councilor) are available for municipal election years (2020, 2024, ...) and president, vice president, governors, vice governors, senators and federal, state and district deputies for general election years (2018, 2022, ...).

Usage

```
get_elected(  
  year = 2024L,  
  state = NULL,  
  municipality = NULL,  
  office = NULL,  
  party = NULL,  
  include_alternates = FALSE,  
  cache_dir = elected_cache_dir(),  
  refresh = FALSE,  
  as_of = NULL,  
  events = NULL,  
  base_url = getOption("electedBR.base_url")  
)
```

```
get_mayors(  
  year = 2024L,  
  state = NULL,  
  municipality = NULL,  
  party = NULL,  
  cache_dir = elected_cache_dir(),  
  refresh = FALSE,  
  as_of = NULL,  
  events = NULL,  
  base_url = getOption("electedBR.base_url")  
)
```

```
get_councilors(  
  year = 2024L,  
  state = NULL,  
  municipality = NULL,  
  party = NULL,  
  include_alternates = FALSE,  
  cache_dir = elected_cache_dir(),  
  refresh = FALSE,
```

```

    base_url = getOption("electedBR.base_url")
)

consultar_eleitos(
    ano = 2024L,
    uf = NULL,
    municipio = NULL,
    cargo = NULL,
    partido = NULL,
    incluir_suplentes = FALSE,
    cache_dir = elected_cache_dir(),
    atualizar = FALSE,
    data_referencia = NULL,
    eventos = NULL,
    base_url = getOption("electedBR.base_url")
)

consultar_prefeitos(
    ano = 2024L,
    uf = NULL,
    municipio = NULL,
    partido = NULL,
    cache_dir = elected_cache_dir(),
    atualizar = FALSE,
    data_referencia = NULL,
    eventos = NULL,
    base_url = getOption("electedBR.base_url")
)

consultar_vereadores(
    ano = 2024L,
    uf = NULL,
    municipio = NULL,
    partido = NULL,
    incluir_suplentes = FALSE,
    cache_dir = elected_cache_dir(),
    atualizar = FALSE,
    base_url = getOption("electedBR.base_url")
)

```

Arguments

year	Election year; one of <code>elected_years\$year</code> .
state	One or more two-letter state abbreviations ("PE", "SP"). NULL (the default) keeps every state. President and vice president rows carry no state and are dropped when state is given.
municipality	Municipality names (matched exactly, ignoring accents and case) or TSE municipality codes (not IBGE codes). Municipal offices only.

office	One or more of "president", "vice_president", "governor", "vice_governor", "senator", "federal_deputy", "state_deputy", "district_deputy", "mayor", "vice_mayor" and "councilor". NULL keeps every office in the year. Running mates come from the TSE candidates file, have votes = NA and are linked to the head of their ticket by ticket_candidate_id.
party	Party abbreviations at the time of the election.
include_alternates	Logical. Also return the candidates classified as SUPLENTE (alternate) in the TSE file. This is the classification at the poll, not a current substitution queue.
cache_dir	Directory where the yearly files are stored; see elected_cache_dir() . By default a folder under tempdir() , so set the option or environment variable described there to keep files between sessions.
refresh	Logical. Download the file again even if a copy is cached.
as_of	Optional date (or string convertible with as.Date()). When given, the office-holding events dated on or before it are applied and the columns status_as_of, status_date, office_as_of and status_source are added: status_as_of is the latest event recorded for the official (resignation, death, removal, leave, return), succession for a running mate who took over (with office_as_of set to the office assumed) or no_change_recorded.
events	Optional events table with the columns of get_officeholding_events() , used instead of downloading it.
base_url	Optional base URL of a mirror hosting the files listed in elected_years . Defaults to <code>getOption("electedBR.base_url")</code> ; when NULL, the url column of elected_years is used.
ano, uf, municipio, cargo, partido, incluir_suplentes, atualizar, data_referencia, eventos	Portuguese aliases of year, state, municipality, office, party, include_alternates, refresh, as_of and events. cargo also accepts the Portuguese labels "PRESIDENTE", "VICE-PRESIDENTE", "GOVERNADOR", "VICE-GOVERNADOR", "SENADOR", "DEPUTADO FEDERAL", "DEPUTADO ESTADUAL", "DEPUTADO DISTRITAL", "PREFEITO", "VICE-PREFEITO" and "VEREADOR".

Details

The first call for a year downloads its Parquet file (about 1 MB for a general election, up to 25 MB for a municipal one, see `elected_years$bytes`) into `cache_dir`; later calls `read` the local copy. The default cache lives under [tempdir\(\)](#); see [elected_cache_dir\(\)](#) to make it persistent. Results describe who was elected in the poll: they do not establish who currently holds office nor current party membership. For sitting members of Congress use [get_deputies\(\)](#) and [get_senators\(\)](#); for mayors and governors, `as_of` applies the curated [get_officeholding_events\(\)](#) table (resignations, deaths, removals, leaves and successions), which records changes but does not prove that an official without a record is in office.

Value

A tibble with the columns documented in [normalize_elected\(\)](#): `year`, `election_id`, `round`, `state`, `municipality_tse_id`, `municipality`, `office`, `candidate_id`, `ticket_candidate_id`,

name, ballot_name, party_at_election, election_status, votes and reference, plus the four *_as_of columns when as_of is given. An empty tibble with the same columns is returned when no row matches. The attributes source (TSE dataset page) and notice are set.

See Also

[get_mayors\(\)](#), [get_councilors\(\)](#), [elected_years](#), [get_officeholding_events\(\)](#), [elected_clear_cache\(\)](#).

Examples

```
# Mayors elected in Pernambuco in 2024
get_mayors(state = "PE", municipality = c("Recife", "Caruaru"),
           cache_dir = tempdir())

# Federal deputies elected in 2022, including alternates
get_elected(2022, state = "PE", office = "federal_deputy",
            include_alternates = TRUE, cache_dir = tempdir())

# Governor and vice governor of Pernambuco elected in 2022
get_elected(2022, state = "PE", office = c("governor", "vice_governor"),
            cache_dir = tempdir())

# Who holds the Recife mayoralty on a given date, after the 2026 resignation
get_mayors(state = "PE", municipality = "Recife", as_of = "2026-06-01",
           cache_dir = tempdir())

# Same query through the Portuguese alias
consultar_eleitos(2022, uf = "PE", cargo = "DEPUTADO FEDERAL",
                 cache_dir = tempdir())
```

get_officeholding_events

Office-holding events for elected officials

Description

A curated table of changes in office holding after the election (an official who resigned, died, was removed or took leave, and who succeeded them), for the offices covered by [get_elected\(\)](#) that have no official API of sitting members: mayors, governors and their deputies. It is maintained in the package repository, served from the same host as the yearly files and refreshed on demand, not on a schedule; an official absent from the table has simply not been recorded, which is not evidence of being in office. Every row cites its source. Contributions are welcome at <https://github.com/StrategicProjects/electedBR>.

Usage

```
get_officeholding_events(
  events = NULL,
  refresh = FALSE,
  max_age_hours = 24,
  cache_dir = elected_cache_dir(),
  base_url = getOption("electedBR.base_url")
)

consultar_eventos_exercicio(
  eventos = NULL,
  atualizar = FALSE,
  validade_horas = 24,
  cache_dir = elected_cache_dir(),
  base_url = getOption("electedBR.base_url")
)
```

Arguments

events	Optional data frame with the same columns, used instead of downloading (for example a local copy under review).
refresh	Logical. Collect again even if a fresh cache exists.
max_age_hours	Maximum age of the cache, in hours (default six).
cache_dir	Cache directory; see elected_cache_dir() .
base_url	Optional base URL of a mirror hosting the files listed in elected_years . Defaults to <code>getOption("electedBR.base_url")</code> ; when NULL, the <code>url</code> column of elected_years is used.
eventos, atualizar, validade_horas	Portuguese aliases of events, refresh and max_age_hours.

Value

A tibble with the columns `year` and `candidate_id` (identifying the official in the yearly file of that election), `name`, `office`, `state`, `municipality_tse_id`, `event` (resignation, death, removal, leave or return), `date`, `successor_candidate_id`, `successor_name`, `successor_date` (when the successor took office), `source` (URL of an official or press record) and `notes`, plus `retrieved_at`.

See Also

[get_elected\(\)](#), whose `as_of` argument applies these events.

Examples

```
get_officeholding_events(cache_dir = tempdir())
```

get_service_history *Service history of a deputy or senator*

Description

Returns the official records about the service of one member of Congress, identified by the `person_id` returned by [get_deputies\(\)](#) or [get_senators\(\)](#). The two houses publish different things and the difference is preserved rather than reconciled:

Usage

```
get_service_history(
    person_id,
    refresh = FALSE,
    max_age_hours = 6,
    cache_dir = elected_cache_dir()
)

consultar_historico_exercicio(
    id_pessoa,
    atualizar = FALSE,
    validade_horas = 6,
    cache_dir = elected_cache_dir()
)
```

Arguments

<code>person_id</code>	A single id such as "camara:204379" or "senado:5322".
<code>refresh</code>	Logical. Collect again even if a fresh cache exists.
<code>max_age_hours</code>	Maximum age of the cache, in hours (default six).
<code>cache_dir</code>	Cache directory; see elected_cache_dir() .
<code>id_pessoa, atualizar, validade_horas</code>	Portuguese aliases of <code>person_id</code> , <code>refresh</code> and <code>max_age_hours</code> .

Details

- Chamber (camara:): `record_type = "status_record"`, one row per status record with `record_at`, the situation and the party at that moment. Registry or party changes are not turned into starts or ends of service, so `exercise_start` and `exercise_end` are NA.
- Senate (senado:): `record_type = "service_period"`, one row per official period of each mandate, with `exercise_start` and `exercise_end`. An open period is not by itself evidence of current service; use [get_senators\(\)](#) for that.

Value

A tibble with the columns `person_id`, `name`, `state`, `office`, `mandate_id`, `mandate_role`, `mandate_role_raw`, `exercise_status`, `exercise_status_raw`, `party_at_record`, `record_type`, `record_at`, `exercise_start`, `exercise_end`, `description`, `source`, `source_updated_at` and `retrieved_at`.

Examples

```
senators <- get_senators(state = "PE", cache_dir = tempdir())
get_service_history(senators$person_id[[1]], cache_dir = tempdir())
get_service_history("camara:204379", cache_dir = tempdir())
```

normalize_elected	<i>Consolidate TSE files into the candidates elected</i>
-------------------	--

Description

Turns the raw *votação nominal por município e zona* table published by the Superior Electoral Court (TSE) into one row per elected candidate. Votes are summed over electoral zones (over municipalities for statewide offices and over the whole country for president), the last round available for each candidate is kept, and distinct elections held on the same date (for instance ordinary and supplementary polls, which have different CD_ELEICAO codes) are never merged.

Usage

```
normalize_elected(data, candidates = NULL, include_alternates = FALSE)
```

```
normalizar_eleitos(dados, candidatos = NULL, incluir_suplentes = FALSE)
```

Arguments

<code>data</code>	A data frame with the TSE vote-by-municipality-and-zone layout. The columns ANO_ELEICAO, CD_ELEICAO, NR_TURNO, SG_UF, CD_MUNICIPIO, NM_MUNICIPIO, CD_CARGO, DS_CARGO, SQ_CANDIDATO, NM_CANDIDATO, NM_URNA_CANDIDATO, SG_PARTIDO, DS_SIT_TOT_TURNO and QT_VOTOS_NOMINAIS are required (case-insensitive).
<code>candidates</code>	Optional data frame with the TSE candidates layout (<code>consulta_cand</code>), used to add the elected running mates. The columns ANO_ELEICAO, CD_ELEICAO, NR_TURNO, SG_UF, SG_UE, NM_UE, CD_CARGO, SQ_CANDIDATO, NR_CANDIDATO, NM_CANDIDATO, NM_URNA_CANDIDATO, SG_PARTIDO and DS_SIT_TOT_TURNO are required.
<code>include_alternates</code>	Logical. Also keep candidates whose final status is SUPLENTE (alternate) in the TSE file. Senate ticket alternates have no votes of their own and are not covered; see <code>get_senators()</code> for the alternates currently serving.
<code>dados</code> , <code>candidatos</code> , <code>incluir_suplentes</code>	Portuguese aliases of <code>data</code> , <code>candidates</code> and <code>include_alternates</code> .

Details

Running mates (vice president, vice governors and vice mayors) receive no votes of their own and are absent from the vote files. When the TSE *candidatos* table of the same year is given in candidates, the running mates classified as elected are added with votes = NA and ticket_candidate_id pointing to the head of their ticket (same NR_CANDIDATO in the same election and electoral unit).

This is the function that builds the yearly files distributed with the package; it is exported so that the same rules can be applied to a fresh TSE download (for example the output of `electionsBR::elections_tse()`).

Value

A tibble with one row per candidate and election, with the columns year, election_id, round, state, municipality_tse_id, municipality, office, candidate_id, ticket_candidate_id, name, ballot_name, party_at_election, election_status, votes and reference. office is one of president, vice_president, governor, vice_governor, senator, federal_deputy, state_deputy, district_deputy, mayor, vice_mayor or councilor. For statewide offices municipality_tse_id and municipality are NA; for president and vice president state is NA as well. ticket_candidate_id is NA except for running mates, and votes is NA for running mates.

See Also

[get_elected\(\)](#) for the ready-made yearly files.

Examples

```
votes <- data.frame(
  ANO_ELEICAO = 2024, CD_ELEICAO = "619", NR_TURNO = 1, SG_UF = "PE",
  CD_MUNICIPIO = "25313", NM_MUNICIPIO = "RECIFE", CD_CARGO = "13",
  DS_CARGO = "Vereador", SQ_CANDIDATO = c("1", "1", "2"),
  NM_CANDIDATO = c("ANA", "ANA", "BRUNO"),
  NM_URNA_CANDIDATO = c("ANA", "ANA", "BRUNO"),
  SG_PARTIDO = c("PSB", "PSB", "PT"),
  DS_SIT_TOT_TURNO = c("ELEITO POR QP", "ELEITO POR QP", "SUPLENTE"),
  QT_VOTOS_NOMINAIS = c(100, 50, 200)
)
normalize_elected(votes)
normalize_elected(votes, include_alternates = TRUE)
```

Index

* **datasets**
 elected_years, [4](#)

as.Date(), [9](#)

consultar_deputados (get_deputies), [5](#)
consultar_eleitos (get_elected), [7](#)
consultar_eventos_exercicio
 (get_officeholding_events), [10](#)
consultar_historico_exercicio
 (get_service_history), [12](#)
consultar_prefeitos (get_elected), [7](#)
consultar_senadores (get_deputies), [5](#)
consultar_vereadores (get_elected), [7](#)

diretorio_cache_eleitos
 (elected_cache_dir), [2](#)

elected_cache_dir, [2](#)
elected_cache_dir(), [3](#), [6](#), [9](#), [11](#), [12](#)
elected_clear_cache, [3](#)
elected_clear_cache(), [3](#), [10](#)
elected_years, [4](#), [7](#), [9–11](#)

get_councilors (get_elected), [7](#)
get_councilors(), [10](#)
get_deputies, [5](#)
get_deputies(), [9](#), [12](#)
get_elected, [7](#)
get_elected(), [4](#), [5](#), [10](#), [11](#), [14](#)
get_mayors (get_elected), [7](#)
get_mayors(), [10](#)
get_officeholding_events, [10](#)
get_officeholding_events(), [9](#), [10](#)
get_senators (get_deputies), [5](#)
get_senators(), [9](#), [12](#), [13](#)
get_service_history, [12](#)
get_service_history(), [6](#)

limpar_cache_eleitos
 (elected_clear_cache), [3](#)

normalizar_eleitos (normalize_elected),
 [13](#)
normalize_elected, [13](#)
normalize_elected(), [4](#), [9](#)

tempdir(), [2](#), [9](#)