Codebook bundeslaendeR

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Contents

Introduction

Most election results data are provided by the Bundeswahlleiter. A machine-readable version of the Bundeswahlleiter's compiled data contained in the -periodically published- pdf available here (https://www.bundeswahlleiter.de/service/landtagswahlen.html) was kindly provided to me. Election data outside the timeframe covered by Bundeswahlleiter's data provided to me was collected from the states' local election authorities' (Landeswahlleiter) websites. More information on parties and the continuity of parties under different labels was collected by me.

The Bundeswahlleiter's election data in many cases contains differing names for the same party. Both between states (eg. "Christlich Demokratische Union Deutschlands" vs. "Christlich Demokratische Union Deutschlands in Niedersachsen") as well as within states between elections -in many cases due to parties being renamed- ("BÜNDNIS 90/DIE GRÜNEN, Landesverband Hamburg, Grün-Alternative Liste" vs. "BÜNDNIS 90/DIE GRÜNEN, Landesverband Hamburg"). Efforts were made to reconcile both of these inconsistencies by adding two new, harmonized variables identifying parties (`partyname_short` and `partyname`). This harmonized party identifier also covers merging of parties. The partyname given to the resulting party (eg. "Linke", "Grüne") is given to the largest of the preceding parties contesting an election unless a smaller party joined a government following the election. The original names provided by the Bundeswahlleiter (and Landeswahlleiters in elections after June 2021) are still available (`partyname_short_bundeswahlleiter` and `partyname_bundeswahlleiter`).

Information on governments is mainly taken from replication data from Linhart, Pappi, and Schmitt (2008) which can be found online here: https://www.tu-chemnitz.de/phil/politik/pspi/forschung/daten.php. Information outside the timeframe of Linhart et al. as well as information on the names and party affiliations of the Ministerpräsidenten was collected by me, mainly from German Wikipedia.

All datasets can be accessed through the R Package bundeslaendeR. [1] This package further includes one function -bundeslaendeR::de_states_geofacet_grid_4x4()- that is documented below. Alternatively all datasets can be downloaded in a single `.zip` file including all six datasets as `.csv`, `.rds` and `.dta` files.

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[1]Calling `bundeslaender::ltw_elections`, `bundeslaender::ltw_governments`, `bundeslaender::ltw_combined`, `bundeslaender::ltw_elections_meta`, `bundeslaender::link_manifestos` and `bundeslaender::link_coalitionagreements`.

Table 1: Structure of `ltw_elections`

State Variables Name, Abbreviation, NUTS1 Code			Election Variables Election date, Size Electorate, Turnout, …			Party Variables Names, Abbreviations, several IDs			Party-Election Variables Vote Count, -Share, Seat Count, -Share, …		
state	nuts1	...	election_date	turnout	...	partyname_short	ches_id	...	party_vshare	party_seat_count	...
BE	DE3	...	2015-09-18	0.765	...	Party A	001	...	0.45	46	...
BE	DE3	...	2015-09-18	0.765	...	Party B	002	...	0.30	12	...
BE	DE3	...	2015-09-18	0.765	...	Party C	003	...	0.25	18	...
NI	DE9	...	2012-12-16	0.560	...	Party A	001	...	0.17	12	...
NI	DE9	...	2012-12-16	0.560	...	Party B	002	...	0.33	27	...
NI	DE9	...	2012-12-16	0.560	...	Party D	004	...	0.50	46	...

ltw_elections

`ltw_elections` is a long-form dataset containing one row per contesting party per election. For a schematic version of `ltw_elections`'s structure see table 1. The data can be accessed in R using `bundeslaendeR::ltw_elections`.

ltw_elections Variable Information

| state	**State Abbreviation** ISO 3166-2:DE-code of the state; including BA for the former state of Baden, WH for the former state of Württemberg-Hohenzollern and WB for the former state of Württemberg-Baden.
nuts1	**NUTS1 Code of State** NUTS1 code of state. NA for former states Baden, Württemberg-Baden, Württemberg-Hohenzollern.
state_name_de	**German Name of State** German name of the state.
state_name_en	**English Name of State.** English name of the state.

state_election_
term

Election Term of State

Election term in the state. Counts up from 1. Note that this count does not necessarily has to line up with the official way the respective legislature counts its legislative terms. For example, bundeslaendeR includes data from Berlin Stadtverordnetenversammlung elections in 1946 and 1948 prior to the enaction of the new Berlin state constitution in 1950 that established the Abgeordnetenhaus. The Abgeordnetenhaus starts counting its legislative terms in 1950 instead. Similarly, bundeslaendeR inclues the elections held in Berlin in 2021 as well as the 2023 repeat election and increments the state_election_term counter by one, whereas the Abgeordnetenhaus' official way of counting considers the legislative term to have started in 2021 even after the 2023 rerun.
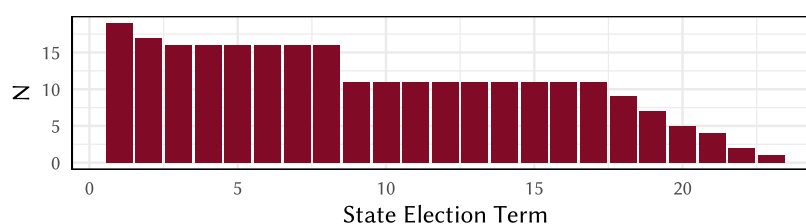
election_date

Election Date

Date of the election. ISO 8601 or R-Date format.
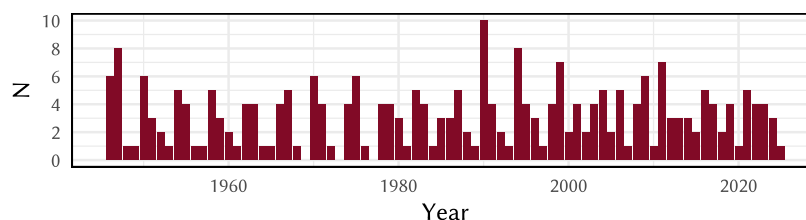
election_id_
bundeswahlleiter

Election ID Bundeswahlleiter

Specific election_id as denoted by the Bundeswahlleiter. Note that BA, WH and WH are named as BW and the number counts down. NA for cases taken from Landeswahlleiters (i.e. elections after ST 2021).
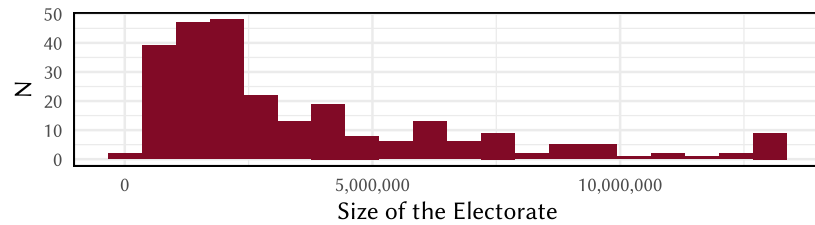
election_remarks_
wahlleiter

Election Remarks Bundeswahlleiter

Remarks on the election as given by the Bundeswahlleiter.

electorate
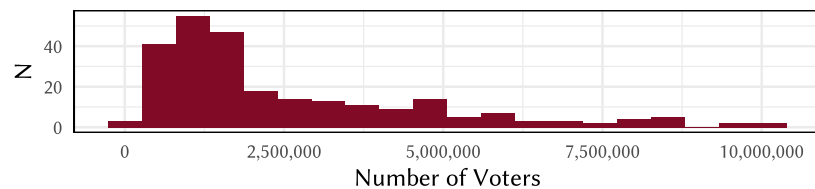
Size of the Electorate

Number of eligible voters. For more totals also see the last six columns.

number_of_voters

Number of Voters

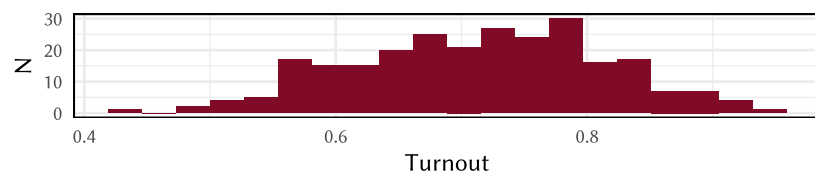Number of voters turning out. For more totals also see the last six columns.

One missing observation: 1946 HB election.

turnout

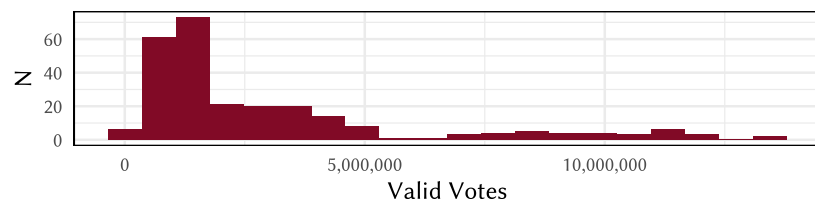**Turnout**

Turnout. Share of eligible voters turning out.

One missing observation: 1946 HB election.
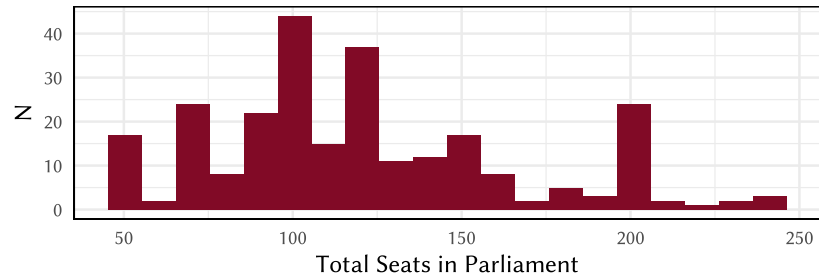
valid_votes

Valid Votes

Number of valid votes. Does not have to be equal to the number of ballots cast, as sometimes a ballot contains multiple votes! For more totals also see the last six columns.

`total_seats_`
`parliament`

Total Seats in Parliament

Total number of members of the newly elected Landtag.

`female_party_`
`seats_available`

Number of female MdLs available per party

Denotes whether information on the no. of female members of the Landtag per party is available for this election. Note that for parties not elected to the new Landtag party_female_mps always is marked as missing.
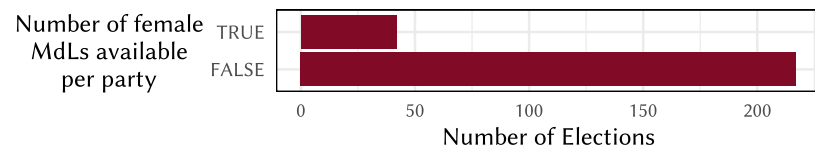
`total_female_`
`mps_parliament`

Number of Female MPs in Parliament

Number of newly elected female MPs.
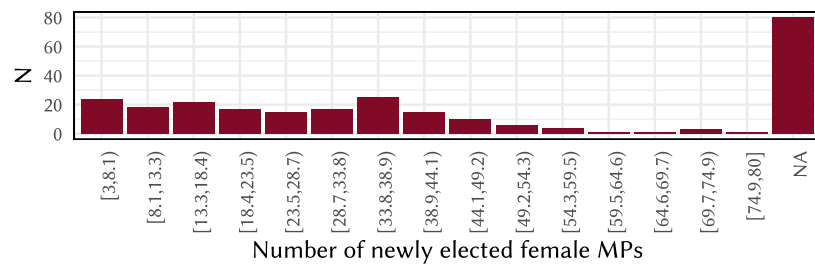
`partyname_short`

Abbreviated Party Name

Harmonized abbreviation of the party's name. 394 unique parties.

`partyname`

Party Name

Harmonized name of the party. 394 unique parties.

partyname_short_
bundeswahlleiter

Party Name Abbreviation from Bundeswahlleiter
Partyname abbreviation as documented by the Bundeswahlleiter. 486
different abbreviations.
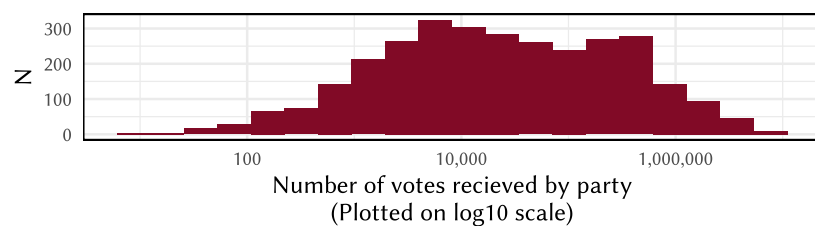
partyname_
bundeswahlleiter

Party Name from Bundeswahlleiter
Partyname as documented by the Bundeswahlleiter. 531 different names.

party_vote_count

Party Vote Count
Number of votes recieved by the party.

Number of votes recieved by party
(Plotted on log10 scale)

party_vshare

Party Vote Share
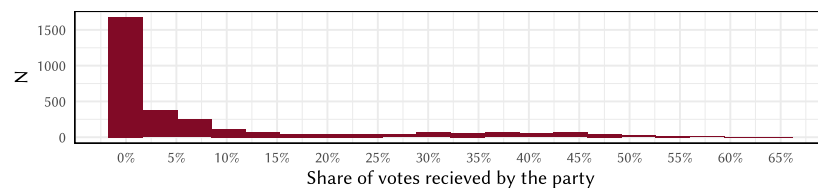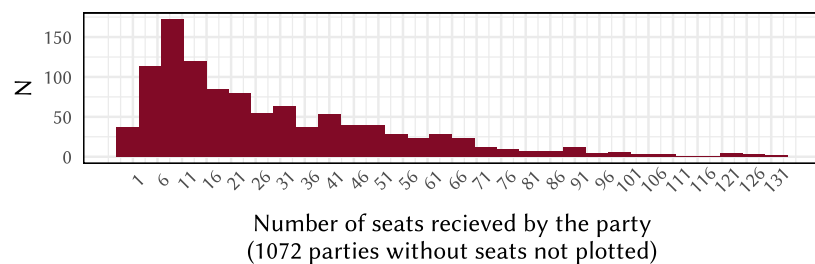Share of votes recieved by the party.

Share of votes recieved by the party

party_seat_count

Party Seat Count
Number of seats recieved by the party.

Number of seats recieved by the party
(1072 parties without seats not plotted)

party_sshare

Party Seat Share
Share of seats recieved by the party.

Share of seats recieved by the party
(1072 parties without seats not plotted)
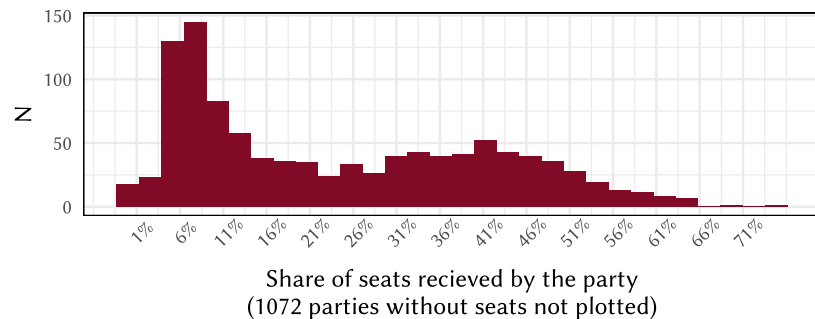
party_female_mps

Number of female MPs from party
Number of female MPs elected for the party. Note that for parties not elected to the new Landtag party_female_mps always is marked as missing.

Number of female MPs from party
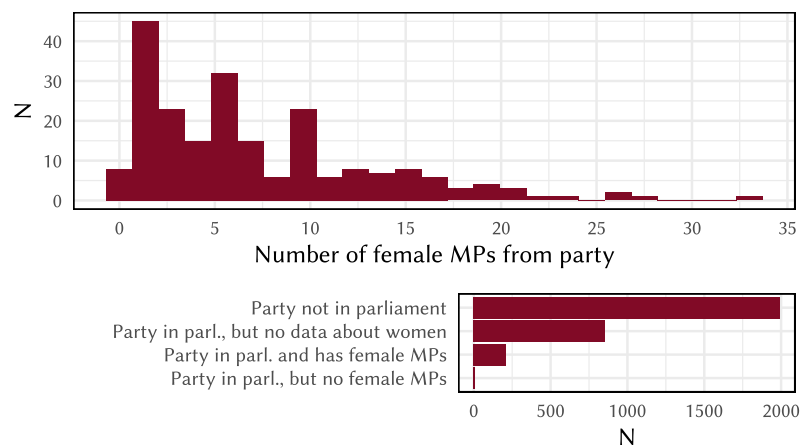
ppeg_id

PPEG ID
If available, party id of the party in the PPEG database (Krause, Stelzle, and WZB Berlin 2024). These party IDs are chiefly based on party IDs from Mackie and Rose (1991).

Number of parties

ches_id

CHES ID
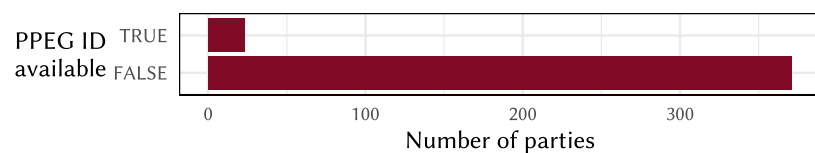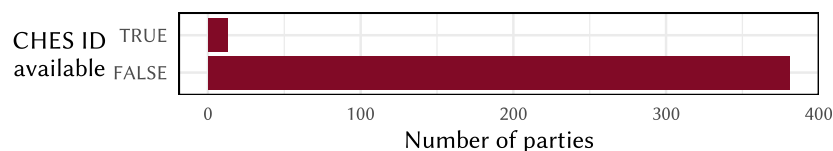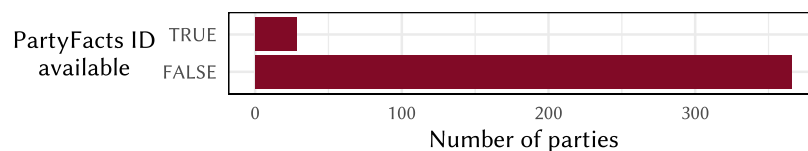If available, ID of the party in the Chapel-Hill Expert Survey (Jolly et al. 2022).

CHES ID available — TRUE / FALSE — Number of parties (0, 100, 200, 300, 400)

partyfacts_id

PartyFacts ID
If available, ID of the party in the partyfacts database (Döring and Regel 2019).

PartyFacts ID available — TRUE / FALSE — Number of parties (0, 100, 200, 300)

decker_neu

Chapter Parteienhandbuch
Denotes, wether the Handbuch der deutschen Parteien (3. ed.) by Decker and Neu (2018) has a chapter on the party.

Decker/Neu Chapter — TRUE / FALSE — Number of parties (0, 100, 200, 300)
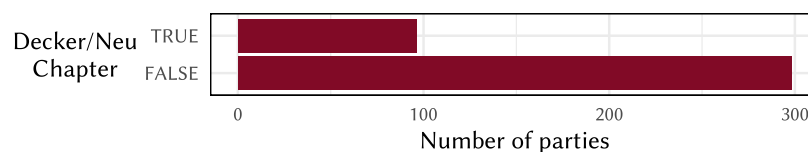
url_info

URL with additional info on the party
URL to informaton on the party on the web. Can contain multiple URLs!

party_remarks_
stelzle

Party remarks Stelzle
Remarks on the party by me.

party_remarks_
bundeswahlleiter

Party remarks Bundeswahlleiter
Remarks on the party as listed by the Bundeswahlleiter.

gueltige_stimm
-zettel_hh_hb

Gültige Stimmzettel HH and HB
State specific totals.

gesamtstimmen_by	**Gesamtstimmen BY** State specific totals.
ausgefallene_ stimmen_be	**Ausgefallene Stimmen BE** State specific totals.
abgegebene_ stimmen_hh	**Abgegebene Stimmen HH** State specific totals.
ungueltige_ stimmen_except_ hh_hb	**Ungültige Stimmen except in HH and HB** State specific totals.
ungueltige_ stimmzettel_hh_hb	**Ungültige Stimmzettel in HH and HB** State specific totals.

ltw_governments

This section of the codebook only concerns variables specific to the `ltw_governments` dataset. For further variables please refer to the `ltw_elections` section.

`ltw_governments` is a long-form dataset containing information on governments in the German states. Each row contains information on one state government. The data can be accessed in `R` using bundeslaendeR::ltw_governments.

ltw_governments Variable Information

gov_no_within_
legterm

Number of cabinet within legislative term

Number of cabinet within legislative term (e.g. First/Second/Third/... cabinet in the 1990-1994 legislative term of state X).
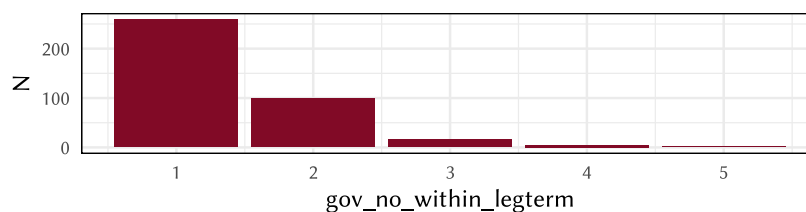
gov_id

Government ID

Unique ID of government. Taken from Linhart et al. However, this ID is not counting up within state by time. In cases where Governments were missing from Linhart et al. before the timeframe covered by Linhart et al. (eg. in Berlin) these earlyer governments have a higher ID than later cabinets contained in Linhart et al. data.

state_gov_number
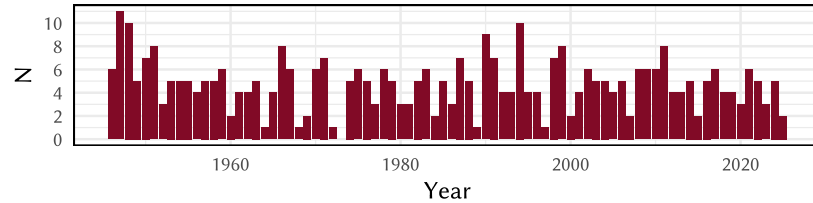
Number of government in state.

Number of government in state.
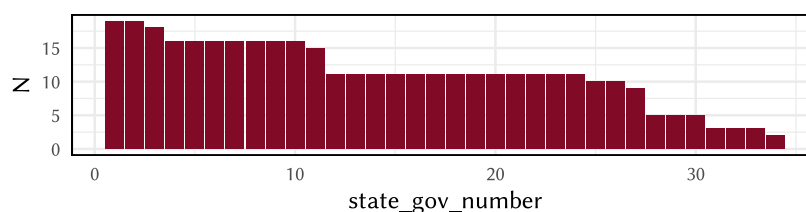
gov_start_date

Government Starting Date

Starting date of the government. ISO 8601 or R-Date format.

gov_source

Government Source

Source of the information on the government. Either Linhart et al. or the URL of the German Wikipedia Page containing information on the cabinet.

gov_remarks_
stelzle

Governments remarks Stelzle

My remarks on governments.

minister_president

Name of minister president

Name of minister president.

mp_party

Minister President's Party

Party of the minister president. partyname_short format used. Note: There is a single cabinet with an independent minister president: Heinrich Welsch's caretaker government in the Saarland (at the time not yet a member of the FRG) in 1955. Further note that there is a single case where the party denoted as mp_party is not part of the set of parties in gov_parties. Hamburg's mayor Kurt Sieveking (1953-1957) was a member of the CDU and is denoted as such in mp_party. However, the CDU contested the 1953 Hamburg election as part of the Hamburg-Block electoral alliance together with the FDP, the DP and the BHE. Thus, as there are no separate election results for the member-parties of the electoral alliance available, gov_parties is here just denoted as HamburgBlock/VBH.
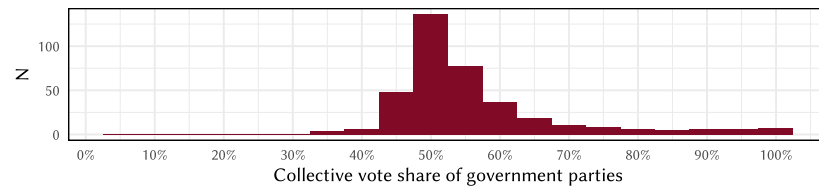
gov_parties

Names of Government Parties

String containing the names (partyname_short format) of all government parties separated by ' ∼ '. The MP's party first, followed by other government parties in the order of their seatshare.

gov_vshare

Government Vote Share

Collective vote share of government parties.

Collective vote share of government parties

gov_seat_count

Government Seat Count

Collective number of seats of government parties.

Collective number of seats of government parties
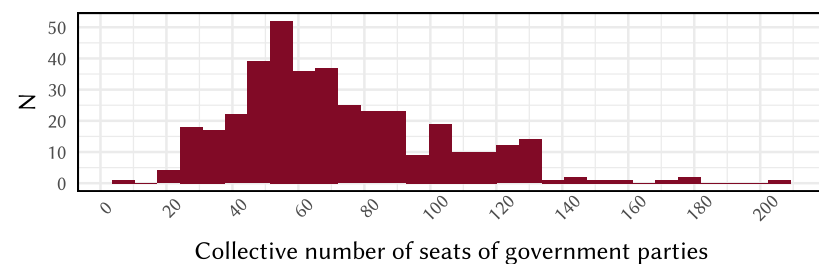
gov_sshare

Government Seat Share

Share of seats of government parties.

Share of seats of government parties
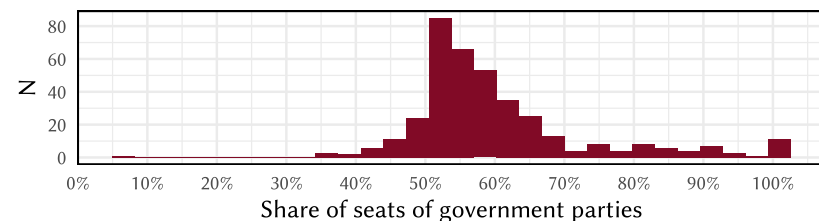
gov_tog

Type of Government

Type of Government:

- Single Party Majority
- Oversized Coalition
- Minimal Winning Coalition
- Single Party Minority
- Multi Party Majority
- Caretaker.

Note that this classification is done automatically based on the number of seats of each governing party *at the beginning of the legislative term*. MPs defecting between parties and thus potentially changing the majority status of governments can thus not be incorporated!

ltw_combined

This section of the codebook only concerns variables specific to the `ltw_combined` dataset. For further variables please refer to the sections on `ltw_elections` and `ltw_governments`.

`ltw_combined` is a long-form dataset containing both election results as well as linked information on governments in the German states. Each row contains information on one party during the time in office of one cabinet. For a schematic version of `ltw_combined`'s structure see table 2. The data can be accessed in R using `bundeslaendeR::ltw_combined`.

ltw_combined Variable Information

gov_party	**Government Party** Boolean wether the party was a cabinet party. Note: There is a single cabinet where no party is marked as part of the cabinet: Heinrich Welsch's caretaker government in the Saarland (at the time not yet a member of the FRG) in 1955.

nmin_party	**Number of Ministers of Party** Number of ministers of party. Note that the number of party-independent ministers is not collected. Thus, the sum of the number of ministers of all government parties can not reliably be understood as the size of the cabinet.
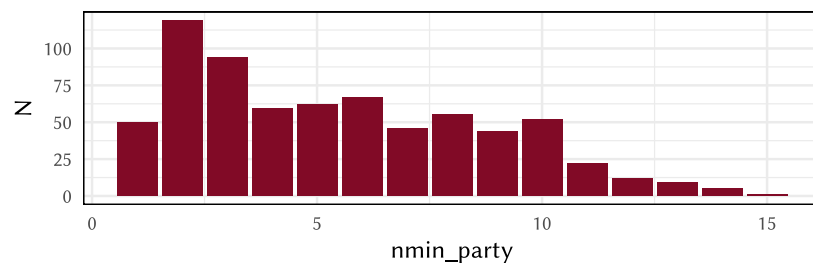
is_mp_party

Is MP Party?

Is the governments minister president from this party? Note: There are two cases of cabinets where the minister president is not part of any party contesting the election: 1) Heinrich Welsch's caretaker government in the Saarland (at the time not yet a member of the FRG) in 1955. 2) Hamburg's mayor Kurt Sieveking (1953-1957) was a member of the CDU and is denoted as such in `mp_party`. However, the CDU contested the 1953 Hamburg election as part of the Hamburg-Block electoral alliance together with the FDP, the DP and the BHE. Thus, as there are no separate election results for the member-parties of the electoral alliance available and only the election result of the entire electoral alliance is reported, `is_mp_party` is set to `FALSE` for all parties during the cabinet's tenure, including for the Hamburg-Block.

Table 2: Structure of `ltw_combined`

State Variables Name, Abbreviation, NUTS1 Code			Election Variables Election date, Size Electorate, Turnout, ...			Party Variables Names, Abbreviations, several IDs several IDs			Party-Election Variables Vote Count, -Share, Seat Count, -Share, ...			Government Variables Inauguration date, PM Name, gov. numbering, gov_id, ...			Government-Party Variables Status in government, number of party ministers, ...		
state	nuts1	...	election_date	turnout	...	partyname_short	ches_id	...	party_vshare	party_seat_count	...	gov_start_date	minister_president	...	gov_party	nmin_party	...
BE	DE3	...	2015-09-18	0.765	...	Party A	001	...	0.45	46	...	2015-10-07	Mustermann, Max	...	TRUE	7	...
BE	DE3	...	2015-09-18	0.765	...	Party B	002	...	0.30	12	...	2015-10-07	Mustermann, Max	...	TRUE	4	...
BE	DE3	...	2015-09-18	0.765	...	Party C	003	...	0.25	18	...	2015-10-07	Mustermann, Max	...	FALSE	NA	...
BE	DE3	...	2015-09-18	0.765	...	Party A	001	...	0.45	46	...	2017-02-28	Mustermann, Max	...	TRUE	11	...
BE	DE3	...	2015-09-18	0.765	...	Party B	002	...	0.30	12	...	2017-02-28	Mustermann, Max	...	FALSE	NA	...
BE	DE3	...	2015-09-18	0.765	...	Party C	003	...	0.25	18	...	2017-02-28	Mustermann, Max	...	FALSE	NA	...
NI	DE9	...	2012-12-16	0.560	...	Party A	001	...	0.17	12	...	2013-01-07	Musterfrau, Erika	...	FALSE	NA	...
NI	DE9	...	2012-12-16	0.560	...	Party B	002	...	0.33	27	...	2013-01-07	Musterfrau, Erika	...	FALSE	NA	...
NI	DE9	...	2012-12-16	0.560	...	Party D	004	...	0.50	46	...	2013-01-07	Musterfrau, Erika	...	TRUE	13	...

ltw_elections_meta

This section of the codebook only concerns variables specific to the `ltw_elections_meta` dataset. For further variables please refer to the sections on `ltw_elections`.

`ltw_elections_meta` is a long-format dataset containing meta information on election results. Each row contains information on one election. The data can be accessed in `R` using `bundeslaendeR::ltw_elections_meta`.

For a discussion of the various measures quantifying party system properties see Niedermayer (2013). For descriptions of the various measures of electoral disproportionality see Karpov (2008).
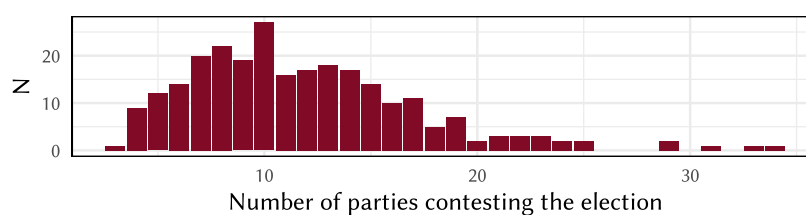
ltw_elections_meta Variable Information

Unless specified otherwise, in the following section v_i refers to party i's vote share, s_i to party i's seat share and n refers to the number of parties contesting a given election.

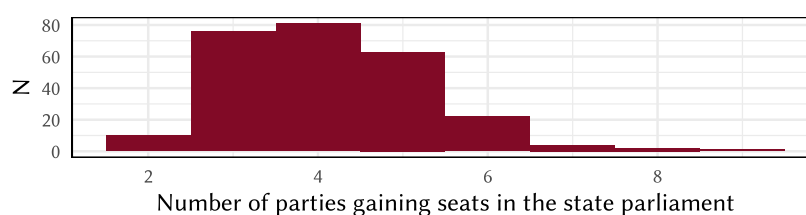| number_parties	**Number of parties contesting the election**
	Number of parties n contesting the election.

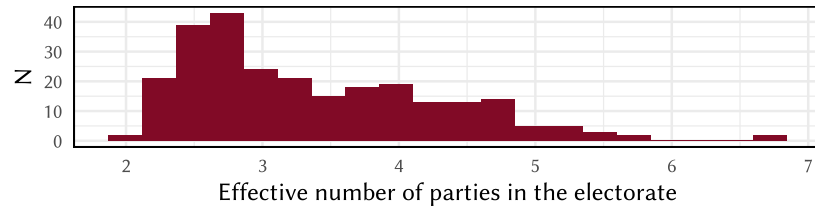| number_parties_parliament	**Number of parties gaining seats in the state parliament**
	Number of parties gaining seats in the state parliament.

fragmentation_enep

Effective number of parties in the electorate

Effective number of parties in the electorate $N_{2\ \text{electorate}}$ (Laakso and Taagepera 1979):

$$N_{2\ \text{electorate}} = \frac{1}{\sum_{i=1}^{n} v_i^2}.\qquad(1)$$

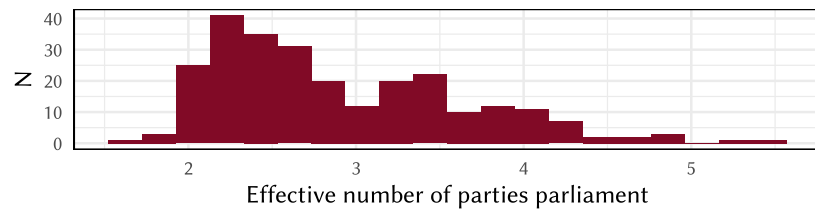Effective number of parties in the electorate

fragmentation_enpp

Effective number of parties in parliament

Effective number of parties in parliament $N_{2\ \text{parliament}}$ (Laakso and Taagepera 1979):

$$N_{2\ \text{parliament}} = \frac{1}{\sum_{i=1}^{n} s_i^2}.\qquad(2)$$
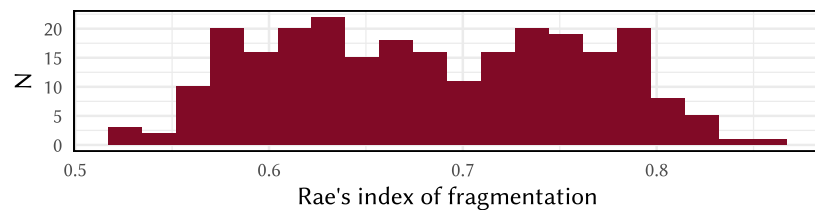

Effective number of parties parliament

fragmentation_rae

Rae's index of fragmentation

Rae's index of fragmentation (Rae 1968):

$$F = 1 - \sum_{i=1}^{n} v_i^2.\qquad(3)$$

Rae's index of fragmentation

volatility_pedersen	**Pederson Index of electoral volatility**

Pederson Index of electoral volatility (Pedersen 1979):

$$V_t = \sum_{i=1}^{n_t \wedge n_{t-1}} |v_{i,t} - v_{i,t-1}|. \tag{4}$$

If a party did not contest an election t or $t - 1$ it's voteshare for the respective election v_t or v_{t-1} is 0. Attention: These figures probably slightly overestimate the real extent of electoral volatility, as party splits/mergers are not considered: If parties A (7% at $t - 1$) and B (4% at $t - 1$) contest election $t - 1$ separately but merge before contesting election t and gaining 15% under the label of party A, they really only contribute $|(7\% + 4\%) - 15\%| = 4\%$ to the calculation of the Pedersen Index. Here, they would contribute $|7\% - 15\%| + |4\% - 0\%| = 12\%$ to the calculation as the merger is not properly accounted for.
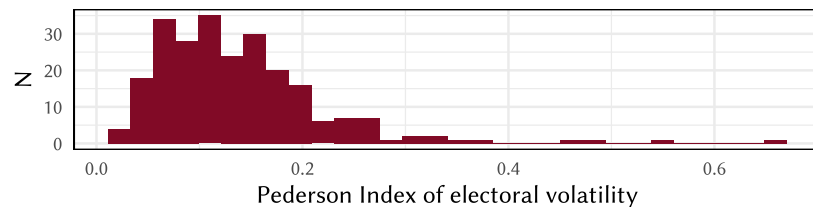
All of the disproportionality measures presented here, their calculation and properties are presented and discussed in Karpov (2008). The distributions of these measures are presented in figure 1 below.

disprop_max_deviation	**Maximum deviation index of electoral disproportionality**

Maximum deviation index of electoral disproportionality:

$$MD = \max_{i=\overline{1,n}} |s_i - v_i|. \tag{5}$$

disprop_rae	**Rae's index of electoral disproportionality**

Rae's index of electoral disproportionality (Rae 1971):

$$I_{\text{Rae}} = \frac{1}{n} \sum_{i=1}^{n} |s_i - v_i|. \tag{6}$$

disprop_
loosmore_hanby

Loosemore-Hanby index of electoral disproportionality
Loosemore-Hanby index of electoral disproportionality (Loosemore and
Hanby 1971):

$$I_{\text{LH}} = \frac{1}{2} \sum_{i=1}^{n} |s_i - v_i|. \tag{7}$$

disprop_grofman

Grofman index of electoral disproportionality
Grofman index of electoral disproportionality:

$$I_{\text{G}} = \frac{1}{N_{2\,\text{electorate}}} \sum_{i=1}^{n} |s_i - v_i|. \tag{8}$$

disprop_lijphart

Lijphart index of electoral disproportionality
Lijphart index of electoral disproportionality:

$$I_{\text{L}} = \frac{|s_i - v_i| + |s_i - v_i|}{2} \tag{9}$$

where only the two largest parties are considered.

disprop_gallagher

Gallagher index of electoral disproportionality
Gallagher index of electoral disproportionality / least squares index
(Lsq):

$$Lsq = \sqrt{\frac{1}{2} \sum_{i=1}^{n} (s_i - v_i)}. \tag{10}$$

disprop_monroe

Monroe index of electoral disproportionality
Monroe index of electoral disproportionality:

$$I_{\text{Monroe}} = \sqrt{\frac{\sum_{i=1}^{n} (s_i - v_i)^2}{1 + \sum_{i=1}^{n} v_i^2}}. \tag{11}$$

disprop_gatev

Gatev index of electoral disproportionality
Gatev index of electoral disproportionality:

$$I_{\text{Gatev}} = \sqrt{\frac{\sum_{i=1}^{n} (s_i - v_i)^2}{\sum_{i=1}^{n} (s_i^2 + v_i^2)}} \tag{12}$$

disprop_ryabtsev

Ryabtsev index of electoral disproportionality
Ryabtsev index of electoral disproportionality:

$$I_{\text{Ryabtsev}} = \sqrt{\frac{\sum_{i=1}^{n} (s_i - v_i)^2}{\sum_{i=1}^{n} (s_i + v_i)^2}}. \tag{13}$$

disprop_szalai

Szalai index of electoral disproportionality
Szalai index of electoral disproportionality:

$$I_{\text{Szalai}} = \sqrt{\frac{\sum_{i=1}^{n} \left(\frac{s_i - v_i}{s_i + v_i}\right)^2}{n}}. \tag{14}$$

disprop_
szalai_weighted

Weighted Szalai index of electoral disproportionality
Weighted Szalai index of electoral disproportionality:

$$\tilde{I}_{\text{Szalai}} = \sqrt{\frac{1}{2} \sum_{i=1}^{n} \frac{(s_i - v_i)^2}{s_i + v_i}}. \tag{15}$$

disprop_
aleskerov_platonov

Aleskerov-Platonov index of electoral disproportionality
Aleskerov-Platonov index of electoral disproportionality:

$$R = \frac{1}{k} \sum_{i=1}^{k} \frac{s_i}{v_i} \tag{16}$$

where only overrepresented parties are considered.

disprop_dhondt | **D'Hondt index of electoral disproportionality**

D'Hondt index of electoral disproportionality:

$$H = \max_{i=\overline{1,n}} \frac{s_i}{v_i}.$$ (17)

disprop_sainte_lague | **Sainte-Lague index of electoral disproportionality**

Sainte-Lague index of electoral disproportionality:

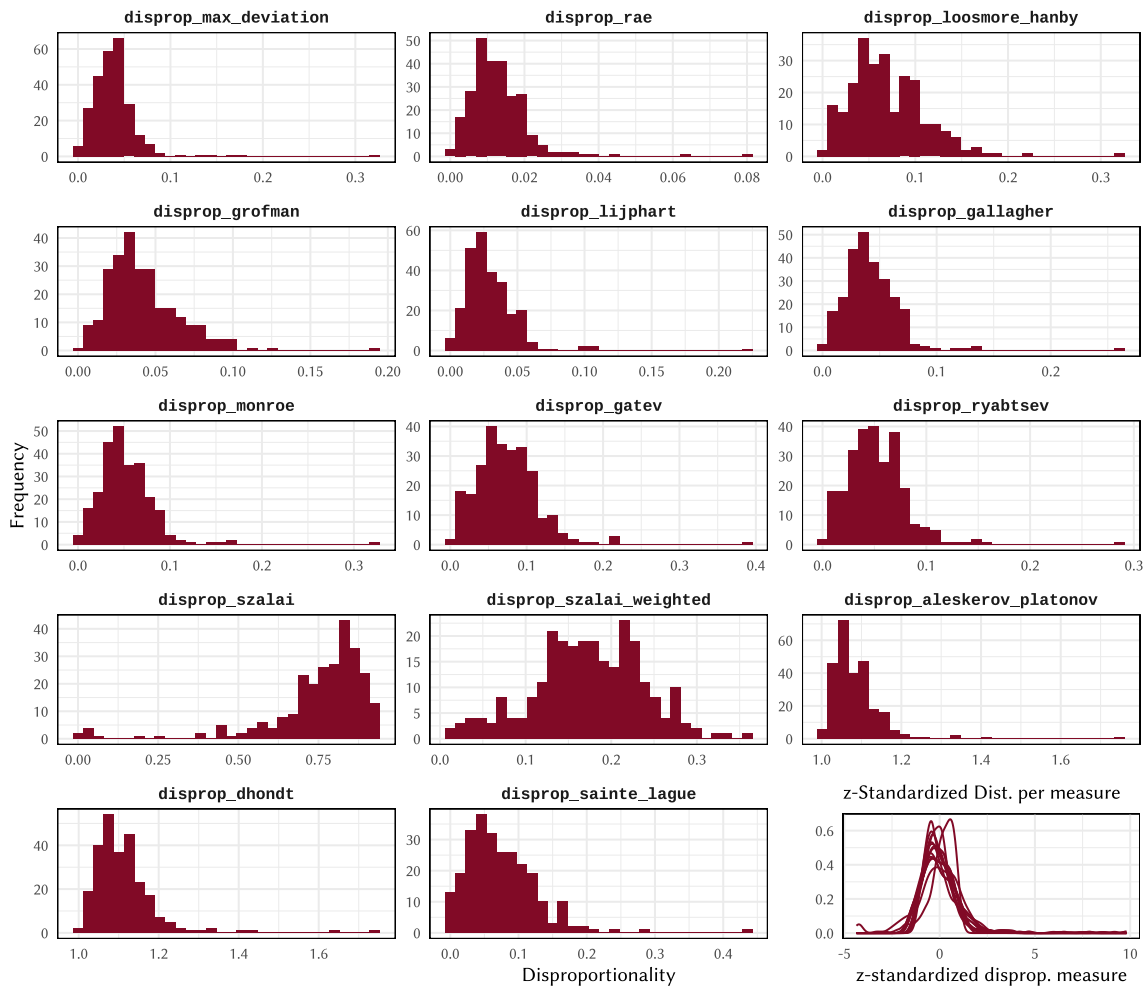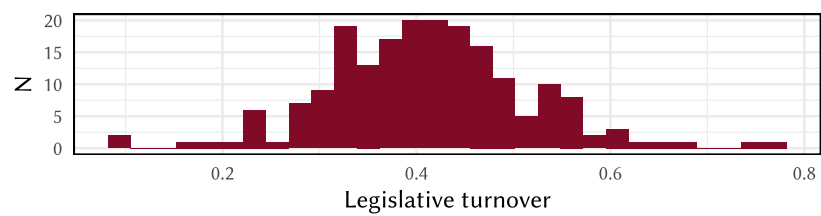$$SL = \sum_{i=1}^{n} v_i \left(\frac{s_i}{v_i} - 1 \right)^2.$$ (18)

Figure 1: Distribution of Disproportionality Measures

legislative_turnover
_heinsohn

Legislative turnover (Heinsohn 2014)

Legislative turnover (Heinsohn 2014).

Linking to other datasets

Using the provided datasets `link_manifestos`, `link_coalitionagreements`, `link_positions_pwib` and `link_legcap_appeldorn_fortunato` bundeslaendeR data can be linked to other datasets.

link_manifestos

`link_manifestos` provides easy links of bundeslaendeR data with party manifestos made available from http://polidoc.net (Benoit, Bräuninger, and Debus 2009; Gross and Debus 2018; Pappi and Seher 2014, 2009; for the codebook see Bräuninger, Debus, Benoit, et al. 2018) as well as from abgeordnetenwatch.de. While file names from polidoc.net follow a naming pattern (`partyID.stateID.year.1.number of party manifesto for election`) and abgeordnetenwatch.de provides unique IDs through its API, the provided links make joining the data easier.

Note that polidoc.net provides a manifesto for the Neue Liberale in the HB 2015 election (41441.005.2015.1.1). Since the party withdrew it's candidacy before the election and is thus not included in the election results in `ltw_elections`, the manifesto id is not included in `link_manifestos`. Several party manifestos made available through abgeordnetenwatch.de's API are also not linked, as the respective parties only contested some nominal districts and not the state-wide list election and thus no election result is included in `ltw_elections`.

The variables `state`, `election_date`, and `partyname_short` can be used in order to link manifestos to the bundeslaendeR data using `link_manifestos`. How many manifestos are available per election is plotted in figure 2.

|	
`polidoc_filename` and `polidoc_filename_2`	**Polidoc File Name of Party Manifesto** File name of state party manifesto (or 2nd manifesto if available) in `.txt` format available in The Political Documents Archive (polidoc.net).
`agwatch_pdf_url`	**URL of Manifesto on `abgeordnetenwatch.de`** URL of the manifesto in `.pdf` format on abgeordnetenwatch.de.
`agwatch_election_ manifesto`	**Is an electoral manifesto not just a general manifesto** TRUE if the linked manifesto is an electoral manifesto. FALSE if it appears to be a more general manifesto of the party (Grundsatzprogramm) independent of any specific state election.
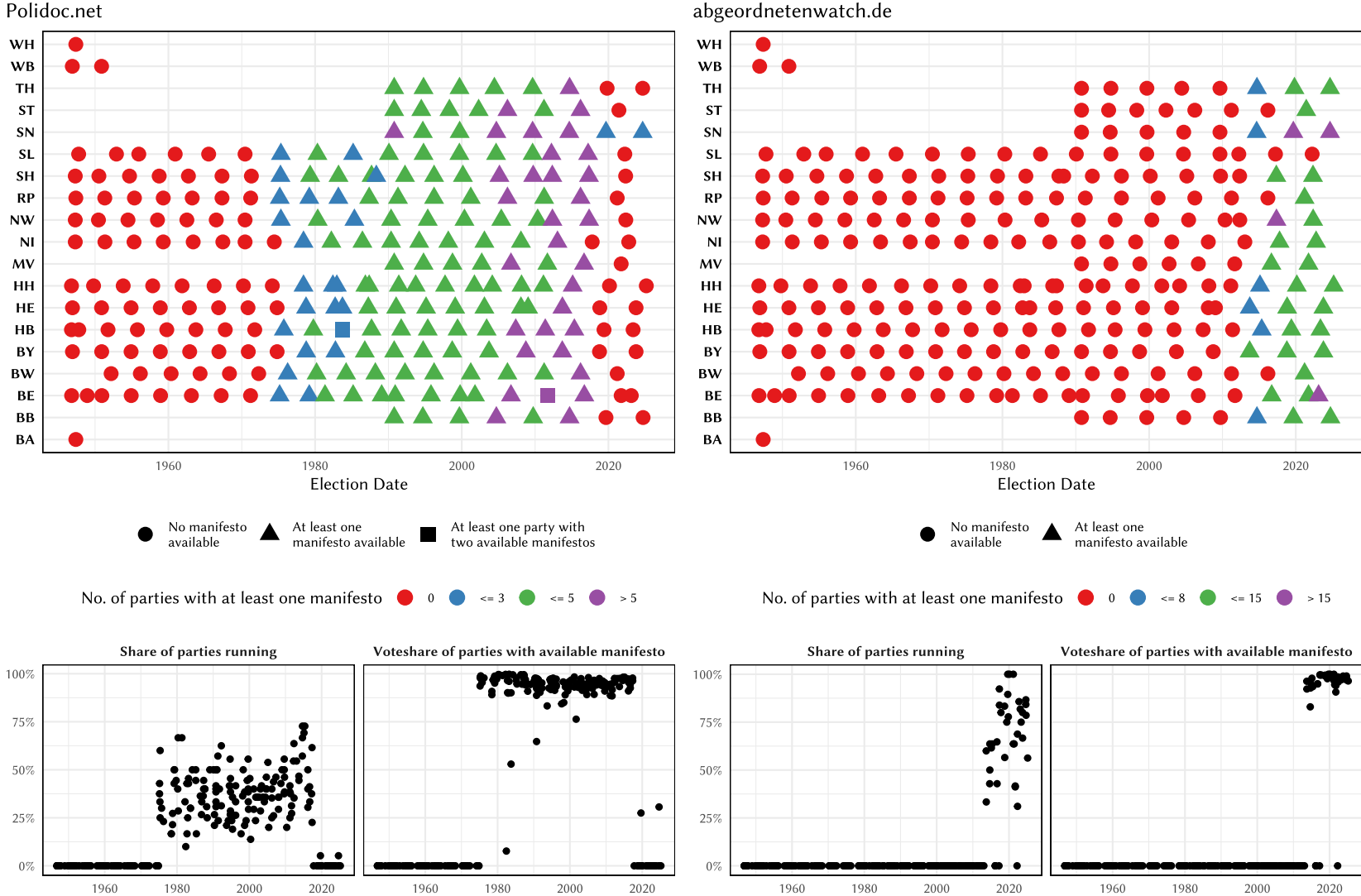
Figure 2: Availability of manifestos from polidoc.net and abgeordnetenwatch.de

link_coalitionagreements

link_coalitionagreements provides easy links of bundeslaendeR data with coalition agreements made available from http://polidoc.net.
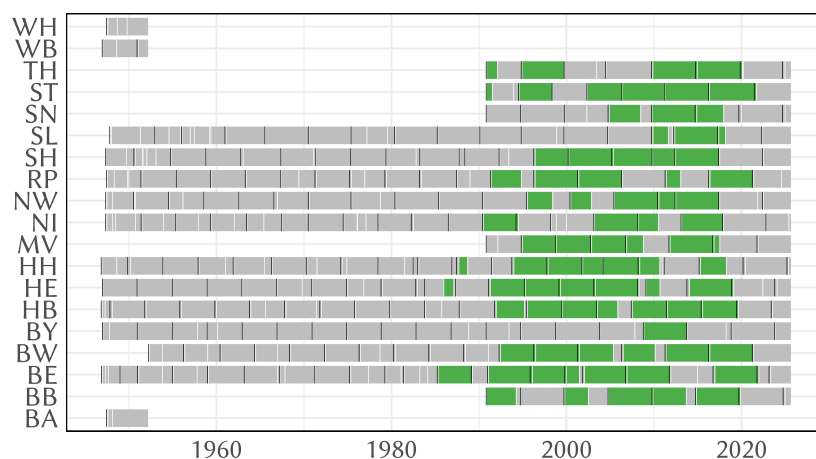
Note that polidoc.net provides a coalition agreement between the SPD and the Greens following the 2008 HE election (41001.006.2008.1.1). Since this potential coalition under leadership of SPD politician Andrea Ypsilanti never came to be due to several SPD MPs opposing the red-green minority cabinet being externally supported by Die Linke the coalition agreement can't be matched with a government in ltw_combined and is thus not included.

The variables state, election_date, and gov_id can be used in order to link coalition agreements to the bundeslaendeR data (ltw_governments or ltw_combined) using link_coalitionagreements.

polidoc_filename	**Polidoc File Name of Coalition Agreement**
	File name of coalition agreement available in The Political Documents Archive (polidoc.net).

Black vertical bars mark election dates. White vertical bars mark start date of government.
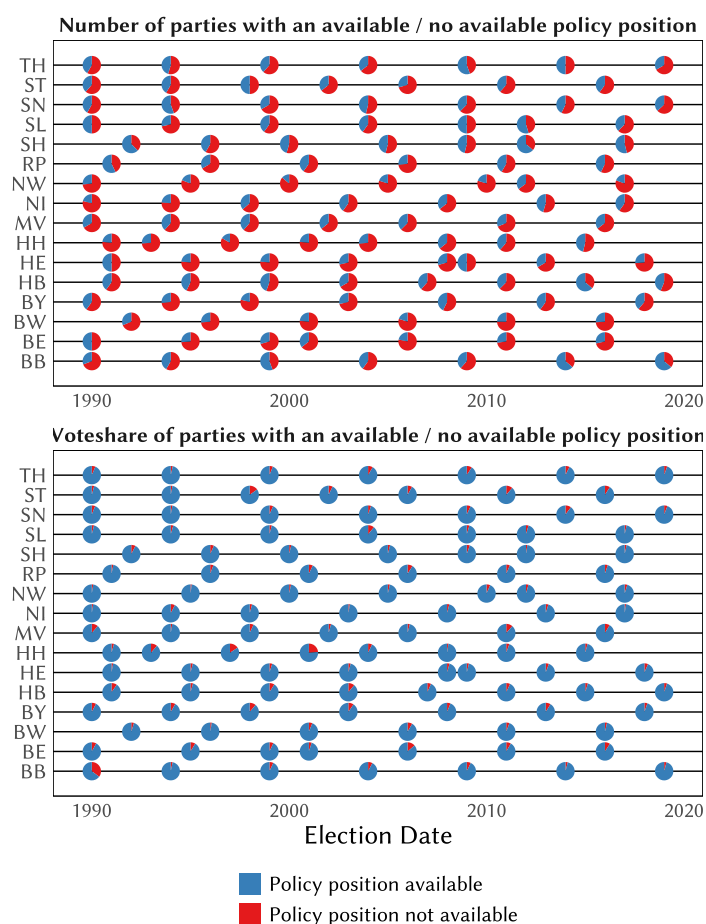
link_positions_pwib

link_positions_pwib provides an easy link of bundeslaendeR data with state parties' policy positions according to measures of Bräuninger, Debus, Müller, et al. (2020) in *Parteienwettbewerb in den deutschen Bundesländern* (PWIB). The position data is available to download at http://polidoc.net. The measures of state parties' policy positions are based on automatic content analysis (WordScores. Reference texts: Manifestos of federal parties. Reference scores: Positions of federal parties based on expert surveys.). For more details see Bräuninger, Debus, Müller, et al. (2020, pp. 59ff.).

The variables state, election_date, and partyname_short can be used in order to link PWIB policy positions to the bundeslaendeR data using link_coalitionagreements. Note that the state abbreviations provided in the PWIB data file (ReplicationData_Bräuninger_etal_2020.dta) are not capitalized while the state abbreviation in link_positions_pwib are.

party_pwib	**Party name in PWIB Data.**
	Name of the party in PWIB position data.

Number of parties with an available / no available policy position

Voteshare of parties with an available / no available policy position

Election Date

■ Policy position available
■ Policy position not available

`link_legcap_appeldorn_fortunato`

`link_legcap_appeldorn_fortunato` provides a link between `bundeslaendeR` data and data on Legislative Capacity in Germany's Parliaments (10.7910/DVN/BA8G7H) provided by Fortunato and Appeldorn (2021) (for more details see Appeldorn and Fortunato 2022), consolidating minor differences in the spelling of state names and state abbreviations between the two datasets.

Note that Appeldorn and Fortunato provide yearly time-series data, while bundeslaendeR data are based on elections/governments.

Note that Appeldorn and Fortunato use the state-abbreviation `"BE"` twice, once for Berlin and once for the federal level.

The variables `state`, and `state_name_en` can be used in order to link Appeldorn and Fortunato's data on legislative capacity to the `bundeslaendeR` data using `link_legcap_appeldorn_fortunato`.

`state_abb_` `appeldorn_fortunato`	**State abbreviation in Appeldorn and Fortunato's data** State abbreviation in Appeldorn and Fortunato's data.

`state_name_` `appeldorn_fortunato`	**State name in Appeldorn and Fortunato's data** State name in Appeldorn and Fortunato's data.

`link_integrated_state_election_surveys`

Dataset providing a link between ltw_elections (or ltw_combined) and party names in vote choice in the integrated dataset of state election surveys availabel on GESIS (ZAZA4182) (Scheuch et al. 2015).

Note that not all parties running in an election were necessarily asked about in the election surcey. Vice versa, not all parties that were asked about in the election survey did necessarily actually contested the election.

Note that for some state elections multiple surveys are available in the integrated survey dataset. See column za_nr1 for GESIS ID of original survey. The GESIS ID is the sole variable identifying a specific election in the integrated dataset.

Note that the integrated survey uses different variables for elections until 1970 (m7b) and after 1973 (m7).

The variables `state`, and `election_date` and `partyname_short` can be used in order to link survey data from the integrated dataset of state election surveys to `bundeslaendeR` data using `link_integrated_state_election_surveys`.
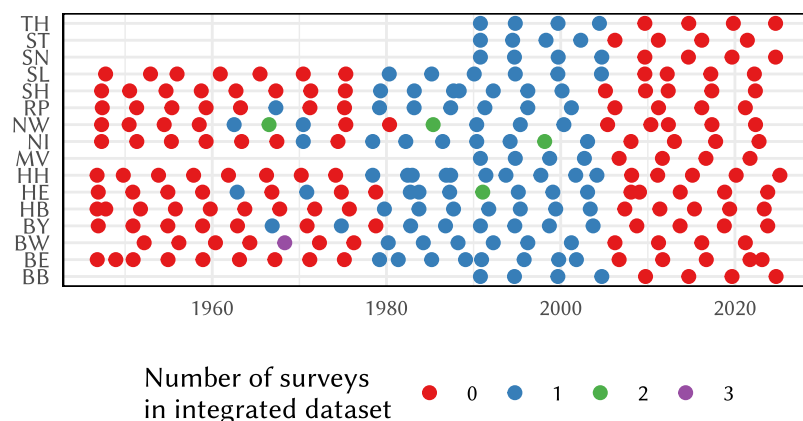
| `bland` | **State name in integrated survey file** |
| | State name in integrated survey file. |

| `za_nr1` | **GESIS ID original state election survey** |
| | GESIS ID of original state election survey. The GESIS ID is the sole variable identifying a specific election in the integrated dataset. |

| `m7` | **Party name integrated survey file (after 1973)** |
| | Party names in vote choice variable in integrated survey file (after 1973). |

m7b

Party name integrated survey file (before 1970)

Party names in vote choice variable in integrated survey file (before 1970).

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