

Supplementary Material for “The Zweitstimme Model: A Dynamic Forecast of the 2021 German Federal Election”

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A. The fundamentals-based Dirichlet regression model

We implement the fundamentals-based model component as Dirichlet regression with random effects. This has two advantages. First, the dirichlet distribution allows to account for the compositional nature of multi-party vote shares. Second, employing random effects allows the estimated effects to vary over time. We assume that three core factors predict election outcomes. First, we use a normal-vote baseline and operationalize it as each party’s vote share in the previous election (and ‘0’ if the party competes for the first time). Second, we account for short-term campaign effects by using the average value as published in polls available 230 to 200 days before the election for each party in the model. Third, we also account for the fact that credit and blame regarding the performance of the incumbent government most heavily registers with the support for the prime minister’s party in parliamentary democracies. We construct an indicator variable scoring ‘1’ for the party that holds the chancellorship as the most visible position in government. Our fundamentals-based model allows us to generate predictions about 200 days before an election.

For the upcoming 2021 election the coefficients are shown in Figure A4. This shows that over time the influence of the three core factors changed, the influence of the normal-vote baseline decreased while the influence of the short-term effects increased. Based on the coefficients for the upcoming election the fundamentals-based model forecasts the following vote shares on election day: CDU/CSU 34% [24%; 44%], SPD 14% [9%; 19%], Left Party 9% [6%; 14%],

the Greens 14% [9%; 20%], FDP 10% [6%; 14%], AfD 10% [6%; 15%], and Others 8% [5%; 12%].

B. An artificial neural network to predict district-level vote shares

In this section we describe the neural network to predict district-level vote shares as introduced in our earlier work (Neunhoeffer et al. 2020). Our artificial neural network for the prediction of district-level vote shares of the candidates for the 2021 Bundestag election in all 299 constituencies consists of three hierarchical layers. The first layer consists of 128 neurons, the second layer consists of 64 neurons, and the third layer is a simple linear output layer. The data matrix of training data (X) is used as input for each of the 128 neurons in the first layer and multiplied by parameters (β) to obtain $X\beta$, i.e., similar to what is known from handling conventional observational data in a linear regression framework. A matrix operation comparable to linear regression then takes place in each neuron to predict a value. That is, each of the 128 neurons in the first layer passes a predicted value to each of the 64 neurons in the second layer. Before the values are passed to the next layer, the results of the neurons are still transformed by a so-called activation function, in this case a rectified linear unit (ReLU) $f(x)=\max(0, x)$. The activation function essentially ensures that the functional form is flexible and that not only linear correlations between the values in the data matrix and the district-level vote shares are possible. In total, our artificial neural network has 9601 parameters (= (9 independent variables + 1 constant) \times 128 neurons + (128 values from the neurons + 1 constant) \times 64 neurons + 64 values from the neurons + 1 constant)), which are estimated simultaneously.

The parameters are iteratively learned using a variant of the stochastic-gradient-descent algorithm to minimize the mean-square deviation from the model's district-level vote share prediction and observed district-level vote shares in the training dataset. This is procedurally

similar to minimizing the sum of squared deviations in a linear regression model when estimated using an iterative method (e.g., Fisher scoring for maximum likelihood). In addition, we address potential overfitting of the neural network through so-called dropout layers (Srivastava et al. 2014), which we add after the first and second layers in our architecture. A dropout layer randomly sets 10% of the passed values from the previous layer to 0 in each training iteration. These neurons therefore 'drop out' of the network for that training iteration. In this way, neural network applications attempt to avoid mistakenly learning idiosyncratic correlations. A helpful side effect of the dropout layers is that this method can also be used to estimate the model uncertainty of neural networks (Gal and Ghahramani 2016). For this purpose, just as in training, 10% of the passed values from the previous layer are randomly set to 0 during prediction. This means that each prediction contains a random component that approximates the model uncertainty of the neural network.

We integrate our Zweitstimme party vote-share predictions to obtain district-level candidate vote predictions in the following way. First, we need to assume how the nationwide swing, i.e. the predicted change of the party-vote shares based on our Zweitstimme model compared to the previous result, is distributed across all electoral districts. We decide to use a weighted proportional swing, which seems more realistic in this particular case than a so-called uniform swing. The adoption of uniform swing would result in predictions of less than 0%, especially for small parties in individual constituencies. To illustrate, we provide an example: the FDP lost 9.8 percentage points party votes nationwide from 2009 to 2013. However, if the FDP had less than 9.8% in an electoral district in the 2009 federal election (for example, in constituency 63 where it reached 8.9%), the uniform swing assumption would mean that the FDP would now get a negative party vote share (of -0.9%) in 2013 in district 63. However, vote shares are always either positive or actually 0, but can never be negative. The proportional swing assumption, on the other hand, that gains and losses are distributed proportionally among the electoral districts, is more realistic and avoids the prediction of negative vote shares. The proportional swing ($-9.8/14.6 = -0.67$) for the example of the FDP in district 63 means that the

FDP would lose about 6 percentage points (-0.67×8.9) of party votes here. Thus, in 2013, the FDP can only expect to win about 2.9% of the party votes (the actual result in 2013 was 2.2%). At the same time, the proportional swing assumption also implies that parties in strongholds gain (or lose) more than in other districts.

Now, we calculate values for the nationwide proportional swing between the 2017 election result and our prediction for 2021, i.e., each of the simulation results of our Zweitstimme model (Stoetzer et al. 2019). For example, the CDU/CSU had won 41.5% of the party votes in 2013. If the CDU/CSU now reaches 35% in a simulation result of our Zweitstimme model, this is 6.5 percentage points less than in 2013, or proportionally -15.7% ($= -6.5/41.5\%$). We then transfer this proportional swing to the 2013 party-vote results in the electoral districts (converted to the 2017 districts) to obtain successive simulated distributions of party vote shares for all district-level candidates in each of the 299 constituencies. As we describe in more detail below, these simulated party vote results in each district are then used together with the district and candidate characteristics to predict candidate vote shares.

To move from predictions of the national party vote distribution to predictions of the candidate vote at the district level, we use the following independent variables:

- the prediction of the parties' vote share in the district, which we calculate (as described above) using our Zweitstimme model assuming proportional swing for all electoral district,
- the candidate vote shares of the respective parties in the previous election,
- the number of candidates in the district,
- whether the incumbent is running again or not
- whether the district is in West or East Germany.

Characteristics of the candidates in the model are:

- the list position, coded as 1 - list position/length of list. A value of 0 means that the respective district candidates do not run on any list.
- whether a candidate run previously (as list candidate or district candidate),
- incumbency status,
- gender (i.e., woman = 1)
- whether candidates have an academic degree (Schneider and Tepe 2011).

We coded these variables for all district candidates since the 1983 federal election (N= 20,823). We split the dataset into a training dataset with all observations before the respective federal election (2009, 2013, and 2017) and a prediction dataset with the observations for the respective federal election. We then use the training dataset to train our district-level prediction model. For the prediction, we replace the party vote share in the district with the Zweitstimme model predictions at the national level transformed to the district-level assuming a proportional swing. Thus, all variables that we use to predict the candidate vote shares at the district level are publicly available before the election.

C. Additional Figures

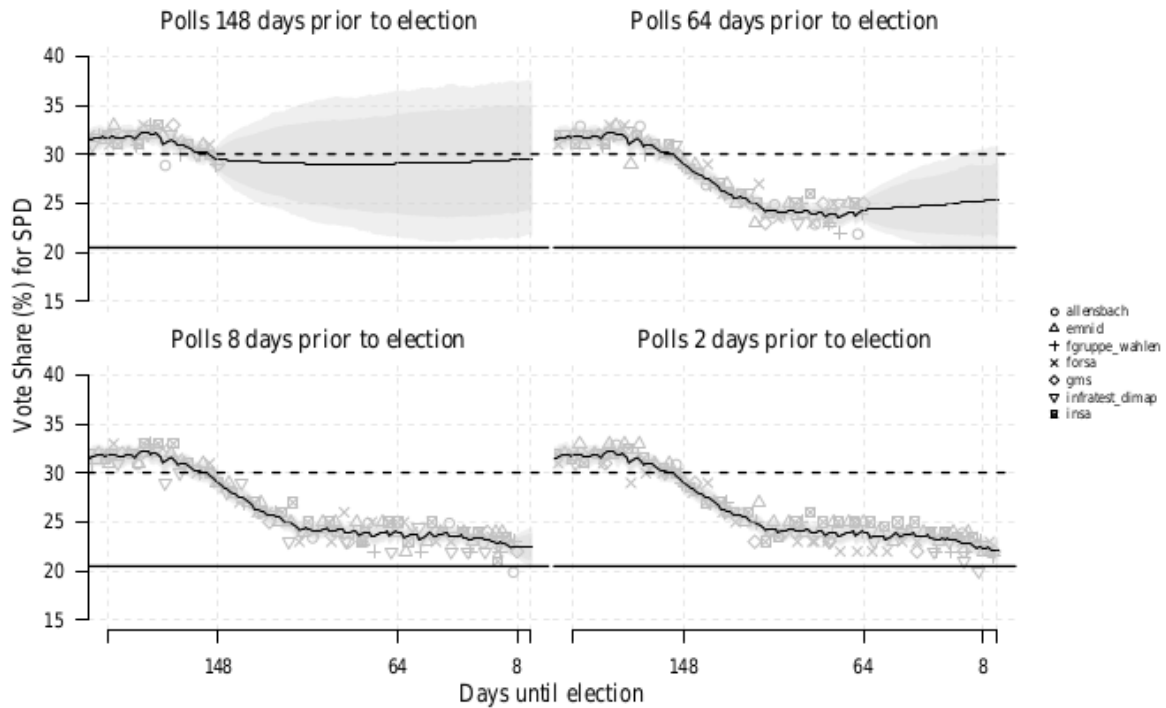


Figure A1: SPD vote share 2017 prediction based on the dynamic Bayesian forecasting model. The symbols represent the party support reported in the respective polls. The solid line depicts the median latent SPD support of the posterior distribution; the shadowed area depicts the 5/6 and 95% credible intervals. The observed 2017 SPD vote share is indicated by the solid horizontal line (20.5%), and the forecast of the fundamentals-based model is marked by the dashed horizontal line (30.1%).

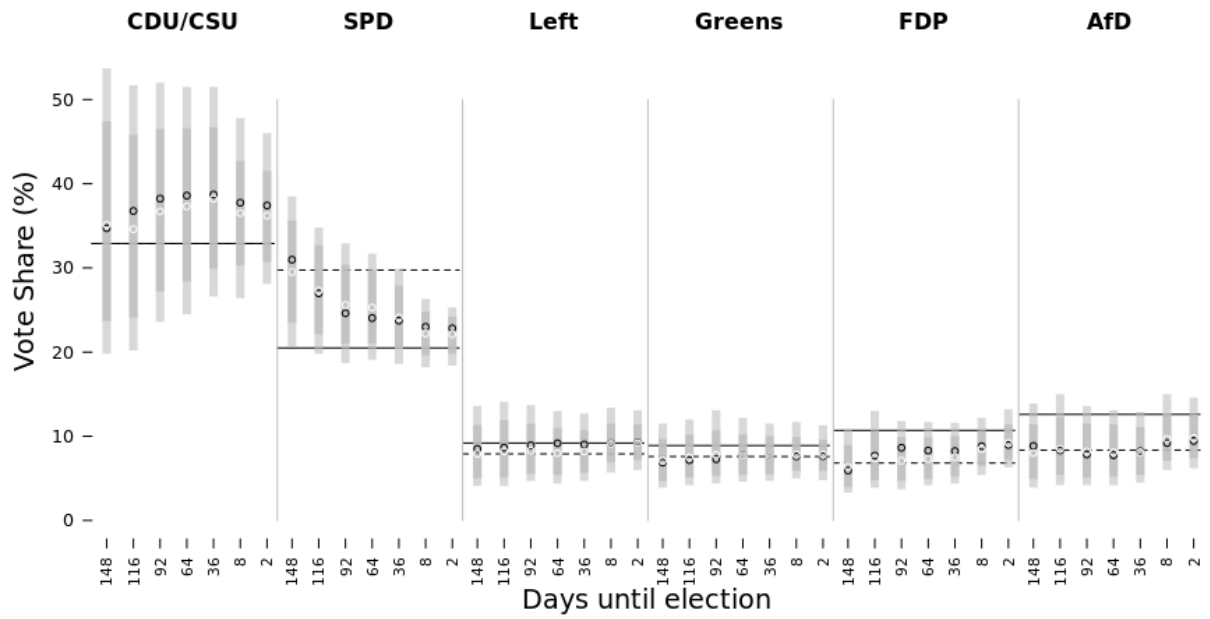


Figure A2: Evolution and evaluation of our forecast for the 2017 Bundestag election. The light points show our mean prediction at the respective day prior to the election; dark gray bars depict the 5/6 credible intervals and light gray bars the 95% credible intervals. Each party's observed vote share is indicated by the solid horizontal line. The mean forecast of the fundamentals Dirichlet regression model is marked by the dashed horizontal line. The dark points plot the monthly poll averages.

Probabilities to win each electoral district per party
100 days before the election

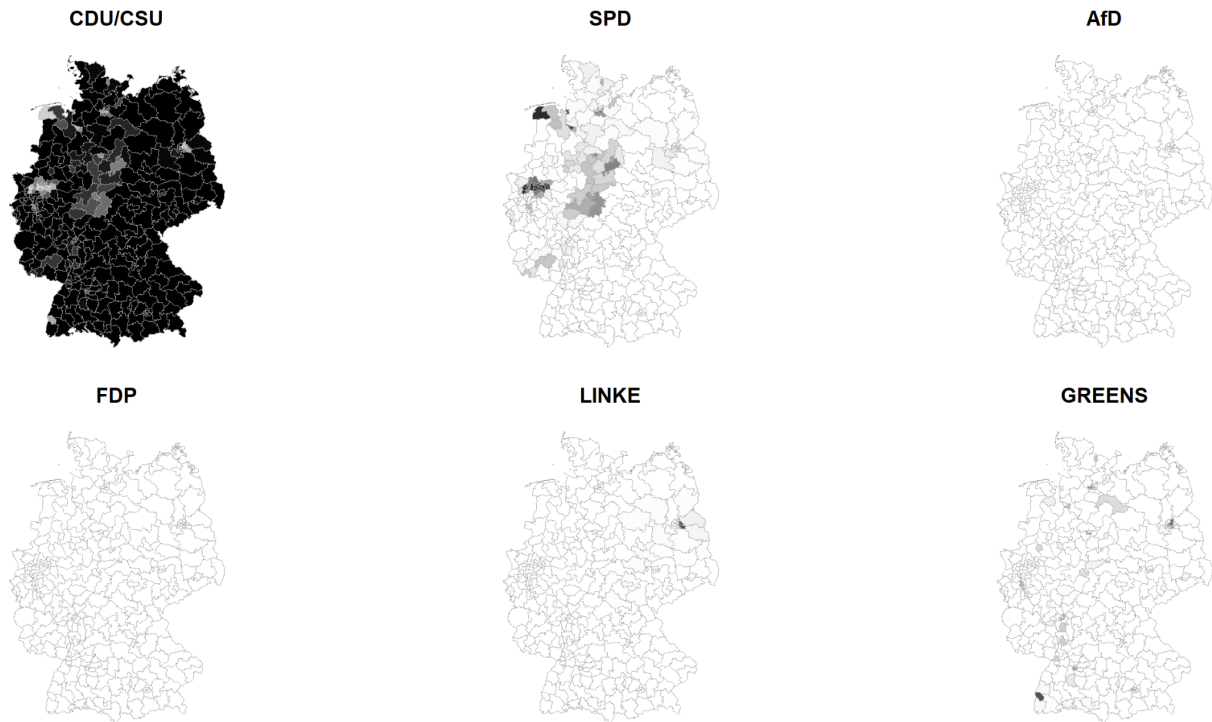


Figure A3: Probabilities to win each electoral district per party as of June 17 2021, 100 days before the election. The darker the shading, the higher a candidate's chance to win the respective district. As not all required information on the candidates in each of the 299 electoral districts is available yet, we make simplifying assumptions until this is the case. Most importantly, we assume that the same candidates as in 2017 will run again in 2021.

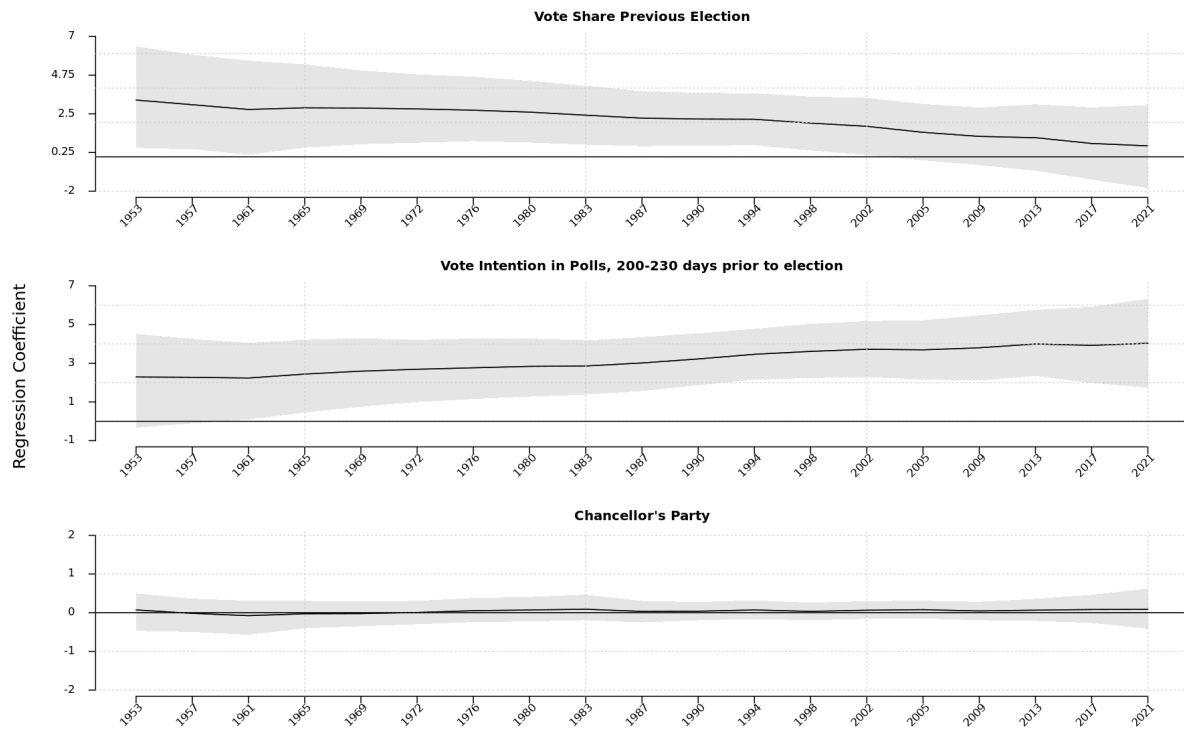




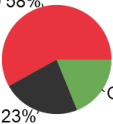
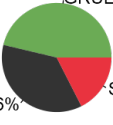
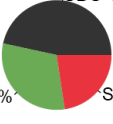
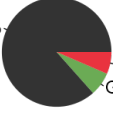


Figure A4: Coefficients for fundamentals-based Dirichlet regression forecasting model.

D. District-level Predictions in Detail

In addition to the overview of candidates' probabilities to win a district as shown in Figure A3, we provide district-level predictions 100 days before the election in greater detail. As required information is not yet available for the 2021 election (as of June 17 2021), we need to make additional simplifying assumptions. Most importantly for the current district-level prediction we assume that the same candidates as in 2017 will run again in 2021 (as this is the best data available). As soon as the data on the 2021 candidates is available, we will also publish more detailed district-level predictions in the online edition of Süddeutsche Zeitung.

District no.	Land	District name	Probability of winning
1	SH	Flensburg – Schleswig	<p>CDU 93% SPD 6% GRUENE 1%</p>
2	SH	Nordfriesland – Dithmarschen Nord	<p>CDU 99% SPD 1%</p>
3	SH	Steinburg – Dithmarschen Süd	<p>CDU 98% SPD 2%</p>
4	SH	Rendsburg-Eckernförde	<p>CDU 98% SPD 2%</p>
5	SH	Kiel	<p>CDU 51% SPD 28% GRUENE 21%</p>
6	SH	Plön – Neumünster	<p>CDU 94% SPD 6%</p>
7	SH	Pinneberg	<p>CDU 96% SPD 4%</p>

8	SH	Segeberg – Stormarn-Mitte	<p>CDU 98% SPD 2%</p>
9	SH	Ostholstein – Stormarn-Nord	<p>CDU 97% SPD 2%</p>
10	SH	Herzogtum Lauenburg – Stormarn-Süd	<p>CDU 98% SPD 2%</p>
11	SH	Lübeck	<p>CDU 75% GRUENE 3% SPD 22%</p>
12	MV	Schwerin – Ludwigslust-Parchim I – Nordwestmecklenburg I	<p>CDU 100%</p>
13	MV	Ludwigslust-Parchim II – Nordwestmecklenburg II – Landkreis Rostock I	<p>CDU 100%</p>
14	MV	Rostock – Landkreis Rostock II	<p>CDU 98% LINKE 2%</p>
15	MV	Vorpommern-Rügen – Vorpommern-Greifswald I	<p>CDU 100%</p>

16	MV	Mecklenburgische Seenplatte I – Vorpommern-Greifswald II	CDU 100%	
17	MV	Mecklenburgische Seenplatte II – Landkreis Rostock III	CDU 100%	
18	HH	Hamburg-Mitte	SPD 58% CDU 23% GRUENE 19%	
19	HH	Hamburg-Altona	GRUENE 46% CDU 36% SPD 18%	
20	HH	Hamburg-Eimsbüttel	CDU 47% GRUENE 31% SPD 23%	
21	HH	Hamburg-Nord	CDU 87% SPD 7% GRUENE 7%	
22	HH	Hamburg-Wandsbek	CDU 69% SPD 30% GRUENE 1%	
23	HH	Hamburg-Bergedorf – Harburg	CDU 58% SPD 41% GRUENE 1%	

24	NI	Aurich – Emden	<p>SPD 82% CDU 18%</p>
25	NI	Unterems	<p>CDU 99% SPD 1%</p>
26	NI	Friesland – Wilhelmshaven – Wittmund	<p>CDU 76% SPD 23%</p>
27	NI	Oldenburg – Ammerland	<p>CDU 69% SPD 25% GRUENE 6%</p>
28	NI	Delmenhorst – Wesermarsch – Oldenburg-Land	<p>CDU 87% SPD 13%</p>
29	NI	Cuxhaven – Stade II	<p>CDU 98% SPD 2%</p>
30	NI	Stade I – Rotenburg II	<p>CDU 98% SPD 1%</p>
31	NI	Mittelems	<p>CDU 100%</p>

32	NI	Cloppenburg – Vechta	CDU 100%	
33	NI	Diepholz – Nienburg I	CDU 99%	SPD 1%
34	NI	Osterholz – Verden	CDU 95%	SPD 4%
35	NI	Rotenburg I – Heidekreis	CDU 95%	SPD 5%
36	NI	Harburg	CDU 99%	SPD 1%
37	NI	Lüchow-Dannenberg – Lüneburg	CDU 84%	SPD 2% GRUENE 14%
38	NI	Osnabrück-Land	CDU 99%	SPD 1%
39	NI	Stadt Osnabrück	CDU 98%	SPD 1% GRUENE 1%

40	NI	Nienburg II – Schaumburg	<p>CDU 90% SPD 10%</p>
41	NI	Stadt Hannover I	<p>CDU 48% SPD 47% GRUENE 5%</p>
42	NI	Stadt Hannover II	<p>CDU 39% SPD 31% GRUENE 30%</p>
43	NI	Hannover-Land I	<p>CDU 94% SPD 6%</p>
44	NI	Celle – Uelzen	<p>CDU 99% SPD 1%</p>
45	NI	Gifhorn – Peine	<p>CDU 82% SPD 18%</p>
46	NI	Hamel-Pyrmont – Holzminden	<p>CDU 76% SPD 24%</p>
47	NI	Hannover-Land II	<p>CDU 78% SPD 22%</p>

48	NI	Hildesheim	<p>CDU 87% SPD 13%</p>
49	NI	Salzgitter – Wolfenbüttel	<p>CDU 51% SPD 48%</p>
50	NI	Braunschweig	<p>CDU 58% SPD 37% GRUENE 5%</p>
51	NI	Helmstedt – Wolfsburg	<p>CDU 91% SPD 8%</p>
52	NI	Goslar – Northeim – Osterode	<p>CDU 84% SPD 16%</p>
53	NI	Göttingen	<p>CDU 74% SPD 21% GRUENE 5%</p>
54	HB	Bremen I	<p>CDU 45% SPD 31% GRUENE 25%</p>
55	HB	Bremen II – Bremerhaven	<p>SPD 71% CDU 27% GRUENE 2%</p>

56	BB	Prignitz – Ostprignitz-Ruppin – Havelland I	<p>CDU 97% LINKE 1% SPD 2%</p>
57	BB	Uckermark – Barnim I	<p>CDU 98% LINKE 1% SPD 1%</p>
58	BB	Oberhavel – Havelland II	<p>CDU 98% SPD 2%</p>
59	BB	Märkisch-Oderland – Barnim II	<p>CDU 94% SPD 1% LINKE 5%</p>
60	BB	Brandenburg an der Havel – Potsdam-Mittelmark I – Havelland III – Teltow-Fläming I	<p>CDU 94% LINKE 1% SPD 5%</p>
61	BB	Potsdam – Potsdam-Mittelmark II – Teltow-Fläming II	<p>CDU 88% LINKE 1% GRÜNE 3% SPD 7%</p>
62	BB	Dahme-Spreewald – Teltow-Fläming III – Oberspreewald-Lausitz I	<p>CDU 98% LINKE 1% SPD 1%</p>
63	BB	Frankfurt (Oder) – Oder-Spree	<p>CDU 95% SPD 1% LINKE 3%</p>

64	BB	Cottbus – Spree-Neiße	CDU 98% LINKE 1%
65	BB	Elbe-Elster – Oberspreewald-Lausitz II	CDU 100%
66	ST	Altmark	CDU 99% LINKE 1%
67	ST	Börde – Jerichower Land	CDU 100%
68	ST	Harz	CDU 100%
69	ST	Magdeburg	CDU 98% LINKE 1%
70	ST	Dessau – Wittenberg	CDU 99%
71	ST	Anhalt	CDU 98% LINKE 2%



72	ST	Halle	<p>CDU 97% LINKE 3%</p>
73	ST	Burgenland – Saalekreis	<p>CDU 100%</p>
74	ST	Mansfeld	<p>CDU 98% LINKE 2%</p>
75	BE	Berlin-Mitte	<p>GRUENE 84% LINKE 1% SPD 7% CDU 9%</p>
76	BE	Berlin-Pankow	<p>GRUENE 58% CDU 23% LINKE 18% SPD 2%</p>
77	BE	Berlin-Reinickendorf	<p>CDU 99% SPD 1%</p>
78	BE	Berlin-Spandau – Charlottenburg Nord	<p>CDU 92% SPD 7% GRUENE 1%</p>
79	BE	Berlin-Steglitz-Zehlendorf	<p>CDU 84% GRUENE 15% SPD 1%</p>

80	BE	Berlin-Charlottenburg-Wilmersdorf	<p>CDU 60% GRUENE 37% SPD 3%</p>
81	BE	Berlin-Tempelhof-Schöneberg	<p>CDU 62% GRUENE 36% SPD 2%</p>
82	BE	Berlin-Neukölln	<p>CDU 49% GRUENE 39% SPD 12%</p>
83	BE	Berlin-Friedrichshain-Kreuzberg – Prenzlauer Berg Ost	<p>GRUENE 96% LINKE 4% SPD 0%</p>
84	BE	Berlin-Treptow-Köpenick	<p>LINKE 67% CDU 32% SPD 1%</p>
85	BE	Berlin-Marzahn-Hellersdorf	<p>LINKE 67% CDU 33%</p>
86	BE	Berlin-Lichtenberg	<p>LINKE 88% CDU 11%</p>
87	NW	Aachen I	<p>CDU 90% GRUENE 7% SPD 3%</p>

88	NW	Aachen II	<p>CDU 95% SPD 5%</p>
89	NW	Heinsberg	<p>CDU 100%</p>
90	NW	Düren	<p>CDU 99% SPD 1%</p>
91	NW	Rhein-Erft-Kreis I	<p>CDU 98% SPD 2%</p>
92	NW	Euskirchen – Rhein-Erft-Kreis II	<p>CDU 100%</p>
93	NW	Köln I	<p>CDU 74% SPD 19% GRUENE 7%</p>
94	NW	Köln II	<p>CDU 78% GRUENE 21% SPD 1%</p>
95	NW	Köln III	<p>CDU 45% GRUENE 28% SPD 27%</p>

96	NW	Bonn	<p>CDU 87% SPD 3% GRUENE 11%</p>
97	NW	Rhein-Sieg-Kreis I	<p>CDU 100%</p>
98	NW	Rhein-Sieg-Kreis II	<p>CDU 100%</p>
99	NW	Oberbergischer Kreis	<p>CDU 99%</p>
100	NW	Rheinisch-Bergischer Kreis	<p>CDU 99%</p>
101	NW	Leverkusen – Köln IV	<p>CDU 78% GRUENE 1% SPD 21%</p>
102	NW	Wuppertal I	<p>CDU 75% GRUENE 2% SPD 23%</p>
103	NW	Solingen – Remscheid – Wuppertal II	<p>CDU 97% SPD 2%</p>

104	NW	Mettmann I	CDU 99%	
105	NW	Mettmann II	CDU 98%	
106	NW	Düsseldorf I	CDU 99%	
107	NW	Düsseldorf II	CDU 95%	
108	NW	Neuss I	CDU 100%	
109	NW	Mönchengladbach	CDU 100%	
110	NW	Krefeld I – Neuss II	CDU 100%	
111	NW	Viersen	CDU 100%	

112	NW	Kleve	CDU 100%	
113	NW	Wesel I	CDU 94% SPD 6%	
114	NW	Krefeld II – Wesel II	CDU 87% SPD 13%	
115	NW	Duisburg I	SPD 77% CDU 23%	
116	NW	Duisburg II	SPD 86% CDU 14%	
117	NW	Oberhausen – Wesel III	SPD 77% CDU 23%	
118	NW	Mülheim – Essen I	CDU 53% SPD 47%	
119	NW	Essen II	SPD 85% CDU 15%	

120	NW	Essen III	<p>CDU 92% SPD 7% GRUENE 1%</p>
121	NW	Recklinghausen I	<p>SPD 61% CDU 38%</p>
122	NW	Recklinghausen II	<p>SPD 54% CDU 46%</p>
123	NW	Gelsenkirchen	<p>SPD 86% CDU 14%</p>
124	NW	Steinfurt I – Borken I	<p>CDU 100%</p>
125	NW	Bottrop – Recklinghausen III	<p>CDU 51% SPD 49%</p>
126	NW	Borken II	<p>CDU 100%</p>
127	NW	Coesfeld – Steinfurt II	<p>CDU 100%</p>

128	NW	Steinfurt III	<p>CDU 97% SPD 3%</p>
129	NW	Münster	<p>CDU 84% SPD 1% GRUENE 15%</p>
130	NW	Warendorf	<p>CDU 99% SPD 1%</p>
131	NW	Gütersloh I	<p>CDU 99%</p>
132	NW	Bielefeld – Gütersloh II	<p>CDU 78% SPD 17% GRUENE 5%</p>
133	NW	Herford – Minden-Lübbecke II	<p>CDU 84% SPD 16%</p>
134	NW	Minden-Lübbecke I	<p>CDU 89% SPD 11%</p>
135	NW	Lippe I	<p>CDU 91% SPD 9%</p>









136	NW	Höxter – Gütersloh III – Lippe II	<p>CDU 99% SPD 1%</p>
137	NW	Paderborn	<p>CDU 100%</p>
138	NW	Hagen – Ennepe-Ruhr-Kreis I	<p>CDU 66% SPD 34%</p>
139	NW	Ennepe-Ruhr-Kreis II	<p>SPD 52% GRUENE 1% CDU 48%</p>
140	NW	Bochum I	<p>SPD 71% GRUENE 1% CDU 27%</p>
141	NW	Herne – Bochum II	<p>SPD 93% CDU 7%</p>
142	NW	Dortmund I	<p>SPD 76% GRUENE 2% CDU 22%</p>
143	NW	Dortmund II	<p>SPD 83% CDU 17%</p>

144	NW	Unna I	<p>SPD 69% CDU 31%</p>
145	NW	Hamm – Unna II	<p>CDU 65% SPD 35%</p>
146	NW	Soest	<p>CDU 98% SPD 2%</p>
147	NW	Hochsauerlandkreis	<p>CDU 100%</p>
148	NW	Siegen-Wittgenstein	<p>CDU 98% SPD 2%</p>
149	NW	Olpe – Märkischer Kreis I	<p>CDU 100%</p>
150	NW	Märkischer Kreis II	<p>CDU 93% SPD 7%</p>
151	SN	Nordsachsen	<p>CDU 100%</p>

152	SN	Leipzig I	<p>CDU 98% LINKE 1%</p>
153	SN	Leipzig II	<p>CDU 88% LINKE 2% GRUENE 10%</p>
154	SN	Leipzig-Land	<p>CDU 100%</p>
155	SN	Meißen	<p>CDU 100%</p>
156	SN	Bautzen I	<p>CDU 100%</p>
157	SN	Görlitz	<p>CDU 100%</p>
158	SN	Sächsische Schweiz-Osterzgebirge	<p>CDU 100%</p>
159	SN	Dresden I	<p>CDU 99% GRUENE 1%</p>









160	SN	Dresden II – Bautzen II	<p>CDU 97% GRUENE 2%</p>
161	SN	Mittelsachsen	<p>CDU 100%</p>
162	SN	Chemnitz	<p>CDU 99% LINKE 1%</p>
163	SN	Chemnitzer Umland – Erzgebirgskreis II	<p>CDU 100%</p>
164	SN	Erzgebirgskreis I	<p>CDU 100%</p>
165	SN	Zwickau	<p>CDU 100%</p>
166	SN	Vogtlandkreis	<p>CDU 100%</p>
167	HE	Waldeck	<p>CDU 80% SPD 20%</p>

168	HE	Kassel	<p>CDU 52% SPD 37% GRUENE 11%</p>
169	HE	Werra-Meißner – Hersfeld-Rotenburg	<p>CDU 58% SPD 42%</p>
170	HE	Schwalm-Eder	<p>CDU 67% SPD 32%</p>
171	HE	Marburg	<p>CDU 79% SPD 20% GRUENE 1%</p>
172	HE	Lahn-Dill	<p>CDU 97% SPD 3%</p>
173	HE	Gießen	<p>CDU 96% SPD 5% GRUENE 1%</p>
174	HE	Fulda	<p>CDU 100%</p>
175	HE	Main-Kinzig – Wetterau II – Schotten	<p>CDU 99% SPD 1%</p>




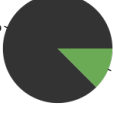




176	HE	Hochtaunus	CDU 100%	
177	HE	Wetterau I	CDU 99%	
178	HE	Rheingau-Taunus – Limburg	CDU 100%	
179	HE	Wiesbaden	CDU 94%	
180	HE	Hanau	CDU 97%	
181	HE	Main-Taunus	CDU 99%	
182	HE	Frankfurt am Main I	CDU 87%	
183	HE	Frankfurt am Main II	CDU 69%	









184	HE	Groß-Gerau	<p>CDU 90% SPD 7% GRUENE 2%</p>
185	HE	Offenbach	<p>CDU 97% SPD 1% GRUENE 2%</p>
186	HE	Darmstadt	<p>CDU 77% SPD 5% GRUENE 18%</p>
187	HE	Odenwald	<p>CDU 98% SPD 1%</p>
188	HE	Bergstraße	<p>CDU 99% SPD 1%</p>
189	TH	Eichsfeld – Nordhausen – Kyffhäuserkreis	<p>CDU 99% LINKE 1%</p>
190	TH	Eisenach – Wartburgkreis – Unstrut-Hainich-Kreis	<p>CDU 99% LINKE 1%</p>
191	TH	Jena – Sömmerda – Weimarer Land I	<p>CDU 99% LINKE 1%</p>








192	TH	Gotha – Ilm-Kreis	CDU 99%	
193	TH	Erfurt – Weimar – Weimarer Land II	CDU 97%	
194	TH	Gera – Greiz – Altenburger Land	CDU 99%	
195	TH	Saalfeld-Rudolstadt – Saale-Holzland-Kreis – Saale-Orla-Kreis	CDU 99%	
196	TH	Suhl – Schmalkalden-Meiningen – Hildburghausen – Sonneberg	CDU 99%	
197	RP	Neuwied	CDU 100%	
198	RP	Ahrweiler	CDU 100%	
199	RP	Koblenz	CDU 99%	



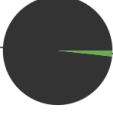

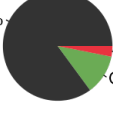



200	RP	Mosel/Rhein-Hunsrück	CDU 100%	
201	RP	Kreuznach	CDU 97%	
202	RP	Bitburg	CDU 100%	
203	RP	Trier	CDU 98%	
204	RP	Montabaur	CDU 99%	
205	RP	Mainz	CDU 94%	
206	RP	Worms	CDU 98%	
207	RP	Ludwigshafen/Frankenthal	CDU 93%	



208	RP	Neustadt – Speyer	<p>CDU 99% SPD 1%</p>
209	RP	Kaiserslautern	<p>CDU 77% SPD 22%</p>
210	RP	Pirmasens	<p>CDU 99% SPD 1%</p>
211	RP	Südpfalz	<p>CDU 99%</p>
212	BY	Altötting	<p>CSU 100%</p>
213	BY	Erding – Ebersberg	<p>CSU 100%</p>
214	BY	Freising	<p>CSU 100%</p>
215	BY	Fürstenfeldbruck	<p>CSU 100%</p>



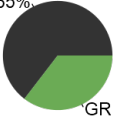





216	BY	Ingolstadt	CSU 100%	
217	BY	München-Nord	CSU 88% SPD 1% GRUENE 11%	
218	BY	München-Ost	CSU 95% GRUENE 5%	
219	BY	München-Süd	CSU 87% GRUENE 13%	
220	BY	München-West/Mitte	CSU 75% GRUENE 24%	
221	BY	München-Land	CSU 100%	
222	BY	Rosenheim	CSU 100%	
223	BY	Bad Tölz-Wolfratshausen – Miesbach	CSU 100%	

224	BY	Starnberg – Landsberg am Lech	CSU 100%	
225	BY	Traunstein	CSU 100%	
226	BY	Weilheim	CSU 100%	
227	BY	Deggendorf	CSU 100%	
228	BY	Landshut	CSU 100%	
229	BY	Passau	CSU 100%	
230	BY	Rottal-Inn	CSU 100%	
231	BY	Straubing	CSU 100%	



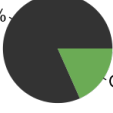





232	BY	Amberg	CSU 100%	
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233	BY	Regensburg	CSU 100%	
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234	BY	Schwandorf	CSU 100%	
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235	BY	Weiden	CSU 100%	
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236	BY	Bamberg	CSU 100%	
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237	BY	Bayreuth	CSU 100%	
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238	BY	Coburg	CSU 100%	
<hr/>				
239	BY	Hof	CSU 100%	









240	BY	Kulmbach	CSU 100%	
241	BY	Ansbach	CSU 100%	
242	BY	Erlangen	CSU 98% GRUENE 2%	
243	BY	Fürth	CSU 100%	
244	BY	Nürnberg-Nord	CSU 85% SPD 3% GRUENE 12%	
245	BY	Nürnberg-Süd	CSU 98% SPD 2%	
246	BY	Roth	CSU 100%	
247	BY	Aschaffenburg	CSU 100%	

248	BY	Bad Kissingen	CSU 100%	
249	BY	Main-Spessart	CSU 100%	
250	BY	Schweinfurt	CSU 100%	
251	BY	Würzburg	CSU 99%	
252	BY	Augsburg-Stadt	CSU 99%	
253	BY	Augsburg-Land	CSU 100%	
254	BY	Donau-Ries	CSU 100%	
255	BY	Neu-Ulm	CSU 100%	

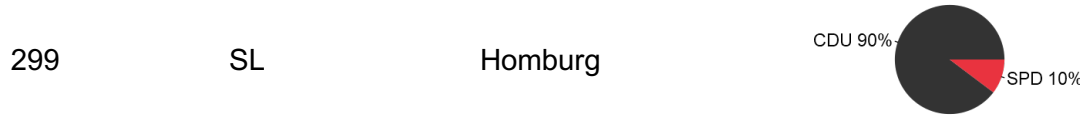
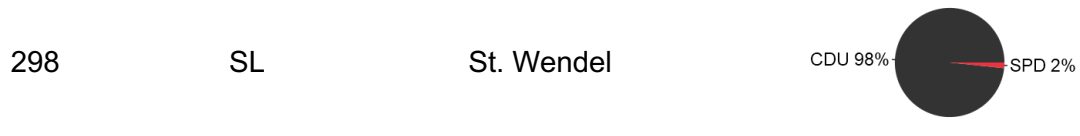
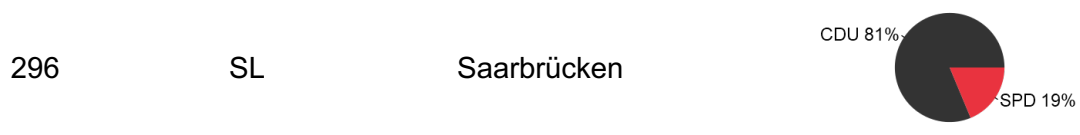
256	BY	Oberallgäu	CSU 100%	
257	BY	Ostallgäu	CSU 100%	
258	BW	Stuttgart I	CDU 65% GRUENE 35%	
259	BW	Stuttgart II	CDU 91% GRUENE 9%	
260	BW	Böblingen	CDU 99% GRUENE 1%	
261	BW	Esslingen	CDU 98% GRUENE 2%	
262	BW	Nürtingen	CDU 99% GRUENE 1%	
263	BW	Göppingen	CDU 99%	

264	BW	Waiblingen	<p>CDU 99% GRUENE 1%</p>
265	BW	Ludwigsburg	<p>CDU 99% GRUENE 1%</p>
266	BW	Neckar-Zaber	<p>CDU 99% GRUENE 1%</p>
267	BW	Heilbronn	<p>CDU 100%</p>
268	BW	Schwäbisch Hall – Hohenlohe	<p>CDU 99% GRUENE 1%</p>
269	BW	Backnang – Schwäbisch Gmünd	<p>CDU 100%</p>
270	BW	Aalen – Heidenheim	<p>CDU 100%</p>
271	BW	Karlsruhe-Stadt	<p>CDU 83% GRUENE 17%</p>

272	BW	Karlsruhe-Land	CDU 100%	
273	BW	Rastatt	CDU 100%	
274	BW	Heidelberg	CDU 81% GRUENE 18%	
275	BW	Mannheim	CDU 87% SPD 6% GRUENE 7%	
276	BW	Odenwald – Tauber	CDU 100%	
277	BW	Rhein-Neckar	CDU 100%	
278	BW	Bruchsal – Schwetzingen	CDU 100%	
279	BW	Pforzheim	CDU 100%	

280	BW	Calw	CDU 100%	
281	BW	Freiburg	GRUENE 67% CDU 32%	
282	BW	Lörrach – Müllheim	CDU 97% GRUENE 3%	
283	BW	Emmendingen – Lahr	CDU 98% GRUENE 2%	
284	BW	Offenburg	CDU 100%	
285	BW	Rottweil – Tuttlingen	CDU 100%	
286	BW	Schwarzwald-Baar	CDU 100%	
287	BW	Konstanz	CDU 98% GRUENE 2%	

288	BW	Waldshut	<p>CDU 99% GRUENE 1%</p>
289	BW	Reutlingen	<p>CDU 99% GRUENE 1%</p>
290	BW	Tübingen	<p>CDU 91% GRUENE 9%</p>
291	BW	Ulm	<p>CDU 100%</p>
292	BW	Biberach	<p>CDU 100%</p>
293	BW	Bodensee	<p>CDU 99% GRUENE 1%</p>
294	BW	Ravensburg	<p>CDU 98% GRUENE 2%</p>
295	BW	Zollernalb – Sigmaringen	<p>CDU 100%</p>



E. Additional References

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