Online appendix

Jessica Fortin-Rittberger, Christina Eder, Corinna Kroeber and Vanessa Marent, ‘How Party Systems Shape Local–National Gender Gaps’, published in *Government and Opposition*

## Appendix 1: *Descriptive Statistics*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Variable* | *N* | *Mean* | *SD* | *Min* | *Max* |
| Per cent seats women | 2956 | 23.77 | 7.84 | 0 | 51.35 |
| Per cent seats left-wing parties | 2956 | 34.26 | 15.43 | 0 | 76.92 |
| Per cent seats minor parties | 2956 | 15.93 | 13.43 | 0 | 84.00 |
| Effective number of parties | 2956 | 3.17 | 0.63 | 1 | 5.43 |
| PR vs. Mixed (1=PR) | 2956 | 1.78 | 0.41 | 0 | 1 |
| Log seats in legislature | 2956 | 3.61 | 0.37 | 2.20 | 5.47 |
| Inhabitants per km² | 2956 | 438.80 | 435.10 | 37 | 3800 |
| Dummy former GDR (1=former GDR) | 2956 | 0.10 | 0.30 | 0 | 1 |

## Appendix 2: *Measures of association for the level of government and leftist parties or respectively minor parties for each German state.*

|  |  |  |  |
| --- | --- | --- | --- |
| entity |  | Leftist parties | Minor parties |
|  |  |  |  |
|  |  |  |  |
| total | Tau b | -0.15 | 0.06 |
|  | p-value | 0.00 | 0.00 |
|  | observations | 4,310 | 4,306 |
|  |  |  |  |
| Schleswig-Holstein | Tau b | -0.17 | 0.14 |
|  | p-value | 0.02 | 0.06 |
|  | observations | 122 | 122 |
|  |  |  |  |
| Hamburg | Tau b | 0.10 | 0.00 |
|  | p-value | 0.88 | 1.00 |
|  | observations | 8 | 8 |
|  |  |  |  |
| Niedersachsen | Tau b | -0.18 | 0.09 |
|  | p-value | 0.00 | 0.01 |
|  | observations | 624 | 624 |
|  |  |  |  |
| Bremen | Tau b | -0.16 | 0.00 |
|  | p-value | 0.70 | 1.00 |
|  | observations | 9 | 9 |
|  |  |  |  |
| Nordrhein-Westfalen | Tau b | -0.07 | 0.15 |
|  | p-value | 0.03 | 0.00 |
|  | observations | 663 | 663 |
|  |  |  |  |
| Hessen | Tau b | -0.14 | 0.05 |
|  | p-value | 0.00 | 0.17 |
|  | observations | 475 | 475 |
|  |  |  |  |
| Rheinland-Pfalz | Tau b | -0.27 | 0.10 |
|  | p-value | 0.00 | 0.13 |
|  | observations | 164 | 164 |
|  |  |  |  |
| Baden-Württemberg | Tau b | -0.10 | 0.03 |
|  | p-value | 0.00 | 0.33 |
|  | observations | 724 | 724 |
|  |  |  |  |
| Bayern | Tau b | -0.09 | -0.06 |
|  | p-value | 0.00 | 0.04 |
|  | observations | 695 | 695 |
|  |  |  |  |
| Saarland | Tau b | -0.22 | 0.17 |
|  | p-value | 0.01 | 0.04 |
|  | observations | 112 | 112 |
|  |  |  |  |
| Berlin | Tau b | -0.28 | 0.00 |
|  | p-value | 0.65 | 1.00 |
|  | observations | 6 | 6 |
|  |  |  |  |
| Brandenburg | Tau b | -0.21 | 0.06 |
|  | p-value | 0.00 | 0.32 |
|  | observations | 161 | 161 |
|  |  |  |  |
| Mecklenburg-Vorpommern | Tau b | 0.06 | 0.16 |
|  | p-value | 0.49 | 0.07 |
|  | observations | 84 | 84 |
|  |  |  |  |
| Sachsen | Tau b | -0.19 | 0.10 |
|  | p-value | 0.00 | 0.07 |
|  | observations | 215 | 215 |
|  |  |  |  |
| Sachsen-Anhalt | Tau b | -0.28 | 0.26 |
|  | p-value | 0.00 | 0.00 |
|  | observations | 128 | 128 |
|  |  |  |  |
| Thüringen | Tau b | -0.18 | 0.15 |
|  | p-value | 0.02 | 0.05 |
|  | observations | 116 | 116 |

## Appendix 3: *Robustness tests for model 4 and model 6 which estimate the effect of left-wing parties and minor parties on the percentage of women on different levels of government.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Test 4.1 | Test 4.2 | Test 4.3 | Test 6.2 | Test 6.3 | Test 6.3 |
|  | b/se | b/se | b/se | b/se | b/se | b/se |
| Dummy state | 17.144\* | 9.789 | 10.776 | -0.544 | 9.645\*\* | 1.520 |
|  | (7.79) | (6.41) | (6.68) | (2.81) | (2.63) | (3.04) |
| Dummy municipal | 9.042\* | 10.973 | 10.108\*\* | -2.387 | 3.339\* | -3.324\*\* |
|  | (4.20) | (6.59) | (4.45) | (2.15) | (1.47) | (1.41) |
| Per cent seats held by left-wing parties | 0.244\*\* | 0.342\* | 0.304\*\*\* |  |  |  |
|  | (0.10) | (0.14) | (0.09) |  |  |  |
| State \* % Left-wing seats) | -0.343\* | -0.076 | -0.185 |  |  |  |
|  | (0.18) | (0.13) | (0.16) |  |  |  |
| Municipality \* % Left-wing seats | -0.205\* | -0.176 | -0.242\*\* |  |  |  |
|  | (0.10) | (0.16) | (0.10) |  |  |  |
| Per cent seats held by minor parties |  |  |  | -0.290\*\* | -0.168\*\* | -0.337\*\*\* |
|  |  |  |  | (0.12) | (0.05) | (0.10) |
| State \* % Minor parties‘ seats |  |  |  | 0.070 | -0.440 | 0.033 |
|  |  |  |  | (0.27) | (0.35) | (0.22) |
| Municipality \* % Minor parties‘ seats |  |  |  | 0.254 | 0.052 | 0.292\*\* |
|  |  |  |  | (0.14) | (0.06) | (0.13) |
| Effective number of parties | 1.244\*\* | -1.697\* | 0.576 | 1.842\*\* | -0.282 | 1.166\*\* |
|  | (0.47) | (0.71) | (0.45) | (0.61) | (0.88) | (0.47) |
| PR (vs. mixed) | 1.925\*\* |  | 2.372\*\*\* | 2.338\*\*\* |  | 2.832\*\*\* |
|  | (0.71) |  | (0.35) | (0.65) |  | (0.45) |
| Log seats in legislature | 3.741\*\* | 3.661 | 3.335\*\*\* | 3.586\*\*\* | 3.836 | 3.296\*\*\* |
|  | (1.32) | (2.09) | (0.99) | (1.12) | (1.99) | (1.02) |
| Count of uneven number of seats |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Inhabitants per km2 | 0.005\*\*\* | 0.002 | 0.005\*\*\* | 0.005\*\*\* | 0.001 | 0.005\*\*\* |
|  | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Dummy former GDR (1=former GDR) |  |  | -2.959\*\*\* |  |  | -3.086\*\*\* |
|  |  |  | (0.58) |  |  | (0.75) |
| Constant | -9.294 | -1.633 | -8.206 | 2.016 | 8.691 | 5.540 |
|  | (6.46) | (10.85) | (5.84) | (6.15) | (5.15) | (4.34) |
| Observations | 2665 | 291 | 2333 | 2665 | 291 | 2333 |
| *R*2 | 0.206 | 0.216 | 0.218 | 0.214 | 0.184 | 0.226 |

Annotations: The district level is the reference category in all models. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Test 4.1 and 6.1 includes only entities in the former Western part of Germany, while Test 4.2 and 6.2 is limited to entities in the former GDR. Test 4.3 and 6.3 exclude the states with MMPs systems at the municipal and district level from the analyses. Test 4.4 and 6.4 add a variable for the number of zipper seats.