## Appendix 1: Regression Tables

Table A1. Logistic Regression Predicting the Gender of a Candidate

|  |  |
| --- | --- |
|  | DV = Gender of Candidate (1 = Female) |
| Age | 0.0238\* |
|  | (0.011) |
| Age \* Age | -0.000342\*\* |
|  | (0.000) |
| Value of Ballot Position | -0.292 |
|  | (0.538) |
| PSL | 0.314\* |
|  | (0.148) |
| PiS | 0.0911 |
|  | (0.166) |
| SLD | 1.301\*\*\* |
|  | (0.121) |
| PSL \* Value of Ballot Position | -1.996\* |
|  | (0.926) |
| PiS \* Value of Ballot Position | -0.837 |
|  | (0.837) |
| SLD \* Value of Ballot Position | -0.895 |
|  | (0.580) |
| 2005 | 0.230 |
|  | (0.143) |
| 2007 | 0.178 |
|  | (0.153) |
| 2011 | 1.452\*\*\* |
|  | (0.125) |
| 2015 | 1.333\*\*\* |
|  | (0.118) |
| 2005 \* Value of Ballot Position | 0.337 |
|  | (0.614) |
| 2007 \* Value of Ballot Position | 0.672 |
|  | (0.574) |
| 2011 \* Value of Ballot Position | -0.253 |
|  | (0.558) |
| 2015 \* Value of Ballot Position | 0.368 |
|  | (0.570) |
| PSL \* 2005 | -0.313 |
|  | (0.200) |
| PSL \* 2007 | -0.301 |
|  | (0.205) |
| PSL \* 2011 | -0.377\* |
|  | (0.164) |
| PSL \* 2015 | -0.291 |
| PiS \* 2005 | -0.0534 |
|  | (0.211) |
| PiS \* 2007 | -0.112 |
|  | (0.228) |
| PiS \* 2011 | -0.0867 |
|  | (0.182) |
| PiS \* 2015 | 0.111 |
|  | (0.179) |
| SLD \* 2005 | -0.871\*\*\* |
|  | (0.169) |
| SLD \* 2007 | -1.043\*\*\* |
|  | (0.178) |
| SLD \* 2011 | -1.311\*\*\* |
|  | (0.140) |
| SLD \* 2015 | -1.238\*\*\* |
|  | (0.133) |
| PSL \* 2005 \* Value of Ballot Position | 1.266 |
|  | (1.129) |
| PSL \* 2007 \* Value of Ballot Position | 0.687 |
|  | (1.163) |
| PSL \* 2011 \* Value of Ballot Position | 0.300 |
|  | (1.095) |
| PSL \* 2015 \* Value of Ballot Position | -0.453 |
|  | (1.157) |
| PiS \* 2005 \* Value of Ballot Position | 0.791 |
|  | (0.929) |
| PiS \* 2007 \* Value of Ballot Position | 0.574 |
|  | (0.911) |
| PiS \* 2011 \* Value of Ballot Position | -0.244 |
|  | (0.880) |
| PiS \* 2015 \* Value of Ballot Position | -0.648 |
|  | (0.875) |
| SLD \* 2005 \* Value of Ballot Position | 0.299 |
|  | (0.791) |
| SLD \* 2007 \* Value of Ballot Position | -0.239 |
|  | (0.836) |
| SLD \* 2011 \* Value of Ballot Position | -0.189 |
|  | (0.728) |
| SLD \* 2015 \* Value of Ballot Position | -0.250 |
|  | (0.757) |
| Incumbent | -0.357\*\*\* |
|  | (0.057) |
| Constant | -1.880\*\*\* |
|  | (0.264) |
| Observations | 17428 |
| Pseudo *R*2 | 0.059 |

Table A2. OLS Regression Predicting a Candidate’s Vote Share

|  |  |
| --- | --- |
|  | DV = Candidate Vote Share |
| First Ballot Position | 0.274\*\*\* |
|  | (0.005) |
| Second Ballot Position | 0.0874\*\*\* |
|  | (0.003) |
| Third Ballot Position | 0.0444\*\*\* |
|  | (0.002) |
| Fourth Ballot Position | 0.0209\*\*\* |
|  | (0.001) |
| Ballot Position (continuous) | -0.00149\*\*\* |
|  | (0.000) |
| Last Ballot Position | 0.0262\*\*\* |
|  | (0.001) |
| Female | 0.0163\*\*\* |
|  | (0.004) |
| PSL | 0.000651 |
|  | (0.001) |
| PiS | 0.00115 |
|  | (0.001) |
| SLD | 0.00127 |
|  | (0.001) |
| Female \* PSL | -0.00933 |
|  | (0.005) |
| Female \* PiS | -0.00461 |
|  | (0.005) |
| Female \* SLD | -0.0134\*\* |
|  | (0.005) |
| 2005 | 0.00185 |
|  | (0.001) |
| 2007 | 0.00191 |
|  | (0.001) |
| 2011 | 0.00545\*\*\* |
|  | (0.001) |
| 2015 | 0.00274\* |
|  | (0.001) |
| Female \* 2005 | -0.0123\* |
|  | (0.006) |
| Female \* 2007 | -0.0134\* |
|  | (0.006) |
| Female \* 2011 | -0.0222\*\*\* |
|  | (0.005) |
| Female \* 2015 | -0.0164\*\*\* |
|  | (0.005) |
| PSL \* 2005 | 0.000713 |
|  | (0.001) |
| PSL \* 2007 | -0.000470 |
|  | (0.001) |
| PSL \* 2011 | -0.00102 |
|  | (0.002) |
| PSL \* 2015 | 0.00396\* |
|  | (0.002) |
| PiS \* 2005 | 0.000123 |
|  | (0.001) |
| PiS \* 2007 | -0.000176 |
|  | (0.001) |
| PiS \* 2011 | -0.00118 |
|  | (0.002) |
| PiS \* 2015 | 0.000644 |
|  | (0.002) |
| SLD \* 2005 | 0.00208 |
|  | (0.002) |
| SLD \* 2007 | -0.00170 |
|  | (0.002) |
| SLD \* 2011 | -0.00122 |
|  | (0.002) |
| SLD \* 2015 | -0.00000275 |
|  | (0.002) |
| Female\* PSL \* 2005 | 0.000770 |
|  | (0.007) |
| Female\* PSL \* 2007 | 0.00648 |
|  | (0.007) |
| Female\* PSL \* 2011 | 0.00910 |
|  | (0.006) |
| Female\* PSL \* 2015 | -0.00115 |
|  | (0.006) |
| Female\* PiS \* 2005 | -0.00255 |
|  | (0.007) |
| Female\* PiS \* 2007 | -0.00228 |
|  | (0.008) |
| Female\* PiS \* 2011 | 0.00348 |
|  | (0.006) |
| Female\* PiS \* 2015 | -0.000118 |
|  | (0.006) |
| Female\* SLD \* 2005 | 0.00300 |
|  | (0.007) |
| Female\* SLD \* 2007 | 0.0159\* |
|  | (0.007) |
| Female\* SLD \* 2011 | 0.0146\* |
|  | (0.006) |
| Female\* SLD \* 2015 | 0.0128 |
|  | (0.007) |
| Age | 0.00106\*\*\* |
|  | (0.000) |
| Age \* Age | -0.0000111\*\*\* |
|  | (0.000) |
| Incumbent | 0.00306\*\* |
|  | (0.001) |
| Constant | 0.0395\*\*\* |
|  | (0.003) |
| Observations | 17428 |
| *R*2 | 0.725 |
| Adjusted *R*2 | 0.724 |

Clustered standard errors in parentheses; \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001; Note: Dummies for number of candidates on the list included but not displayed.

**(Online) Appendix 2: Replication of Górecki and Kukołowicz (2014)**

We have argued in our paper that using gender as an independent variable to predict list placement can lead to strongly biased inference about candidate nomination patterns. Most importantly, such a model predicts the probability of observing a certain list placement among women and among men. This approach is biased because it will produce a negative effect if more women are placed towards the end of the ballot paper, regardless of whether a low or a high number of female candidates is placed at the top of the list. Since quotas are more likely to increase the proportion of women at the end of the ballot paper such an approach might indicate that women had lower chances of being placed at the top of the ballot although the nomination patterns at top ballot positions might have remained stable or became even more favorable for women in the post-quota period.

In the main part of our study, we have demonstrated this bias by using an intuitive hypothetical example. The paper by Górecki and Kukołowicz (2014), which is also based on data from the Polish open-list PR system, is an example of an application of the biased estimation approach. We have discussed the substantail differences between our and Górecki and Kukołowicz’s findings in the main part of the paper. Here we demonstrate that we can replicate the seemingly negative effect of the gender quota on candidate list placement using our own data. Again we would like to stress that the application of Górecki and Kukołowicz (2014) is just one of many papers in which list placement is used a depedent variable. We replicate their findings as we anlyze the identical case but come to very different conclusions.

We run logit models where the dependent variable is defined as in Górecki and Kukołowicz (2014): A dummy variable which measures the “viability” of a ballot position. This variable equals 1 for candidates which are placed at a position which is smaller or equal to twice the party magnitude. When party magnitude is zero, the variable is one for the top two candidates on the list. We use some control variables, such as age and party dummies, but the focus is on the effect of gender which is interacted with the election year. In Figure A3 we display the marginal effect of gender for each election. As it can be seen the effect of female is often insignificant and close to zero in the pre-quota period (elections of 2001, 2005, 2007). This implies that it was equally likely to observe a promising list placement among women and among men in the pre-quota period. For the post-quota period the effect of female suddenly becomes strongly negative and statistically significant. In many empirical analyses such a finding is interpreted as if women were less likely to be nominated to promising ballot positions in these elections. But this is not necessarily the case. Instead we have shown in our paper that this negative effect is caused by the fact that the proportion of women on the ballot increased more at lower ballot positions. Therefore, the probability of observing a promising position among women is now lower because more women occupy less promising positions, but this does not imply that fewer women occupy promising positions. As shown in our paper, the proportion of women on promising positions increased as well after the introduction of the gender quota, it just increased less strongly comapred to the increase at lower ballot positions.

Figure A3. Effect of Female on Probability of Observing a Promising Ballot Position (Replication of Górecki and Kukołowicz (2014))

