**Online Appendix 4: Post-Matching Multilevel Regression Adjustment**

Voters participating in the pilot were assigned to polling places with electronic or traditional voting systems. As a supplementary analysis, we estimated multilevel logistic regressions in the matched sample, in order to determine whether effects reported in Table 4 remained the same after taking into account the hierarchical structure of the data — that is, taking into account that voters where grouped by polling places with different voting technologies in place.

Specifically, for each outcome variable, we estimated a multilevel logistic regression such that:

$$p\left(y\_{ik}=1\right)=\frac{1}{1+e^{-\left(α\_{k}+x\_{i}β\_{k}\right)}}$$

where $y\_{ik}$ denotes a binary outcome variable for voter *i* in polling place *k*; $x\_{i}$ denotes a vector of individual-level attributes; $α\_{k}$ denotes a first-level intercept that varies by polling place *k*; and $β\_{k}$ denotes a vector of first-level slopes with *J* elements (one corresponding to each individual attribute included in the model) that also varies by polling place *k*.

We estimated the multilevel regressions using Bayesian methods, specifying the following priors for the first-level parameters: $α\_{k}∼N\left(\overbar{α}\_{k},σ\_{α}\right)$, with $\overbar{α}\_{k}=γ\_{1}+γ\_{2 }EV\_{k}$, where $EV\_{k}$ takes value one if e-voting was used in polling place *k*, and otherwise takes value zero; and $β\_{jk}∼N\left(\overbar{β}\_{j},σ\_{β\_{j}}\right)$ for each individual attribute *j* in *J*. We specified uninformative priors for parameters $γ\_{1}$, $γ\_{2 }$, and $σ\_{α}$, as well as for $\overbar{β}\_{j}$ and $σ\_{β\_{j}}$, for all *j* individual attributes in *J*.

Figure A4 shows mean values and confidence intervals for parameters $γ\_{2 }$— which capture the effect of e-voting — for each outcome variable. The direction of the impact is similar to that reported in Table 4. To ease the interpretation of results, we also computed simulated effects of e-voting for each outcome variable. Table A4 gives baseline probabilities that each outcome variable takes value 1, as well as the change in the probability caused by switching from traditional voting to e-voting, for a hypothetical polling place with mean parameter values. We found that the sign and magnitude of the effects is very similar to that reported in Table 4. Also, even though standard deviations are larger, all effects remain significant — except for the effect of e-voting on the perceived speed of the voting process, which was already non-significant in the case of the logistic regressions reported in Table 4.

Figure A4: E-voting Coefficients



Table A4: Effect of E-voting

|  |  |  |  |
| --- | --- | --- | --- |
|   | Mean | Standard Deviation | Posterior Interval (5% — 95%) |
| Select candidates electronically | 29.58 | 4.99 | 21.32 | 37.46 |
| Evaluation voting experience | 27.05 | 4.35 | 19.95 | 34.16 |
| Agree substitute TV by EV | 21.54 | 4.15 | 14.92 | 28.36 |
| Difficulty voting experience | 21.16 | 6.34 | 11.62 | 32.32 |
| Elections in Salta are clean | 17.44 | 3.74 | 11.20 | 23.84 |
| Qualification of poll workers | 13.22 | 5.54 | 4.38 | 22.52 |
| Sure vote was counted | 8.38 | 3.52 | 3.25 | 14.56 |
| Speed of voting process | 7.03 | 6.97 | -3.88 | 19.32 |
| Confident ballot secret | -9.15 | 4.05 | -16.00 | -3.21 |