APPENDIX
ESTIMATING CONSTITUENCY PREFERENCES FROM SPARSE SURVEY DATA USING AUXILIARY GEOGRAPHIC INFORMATION

FIGURE 1: Medians of the parameters' posterior probability with 90% credible interval, face-to-face data

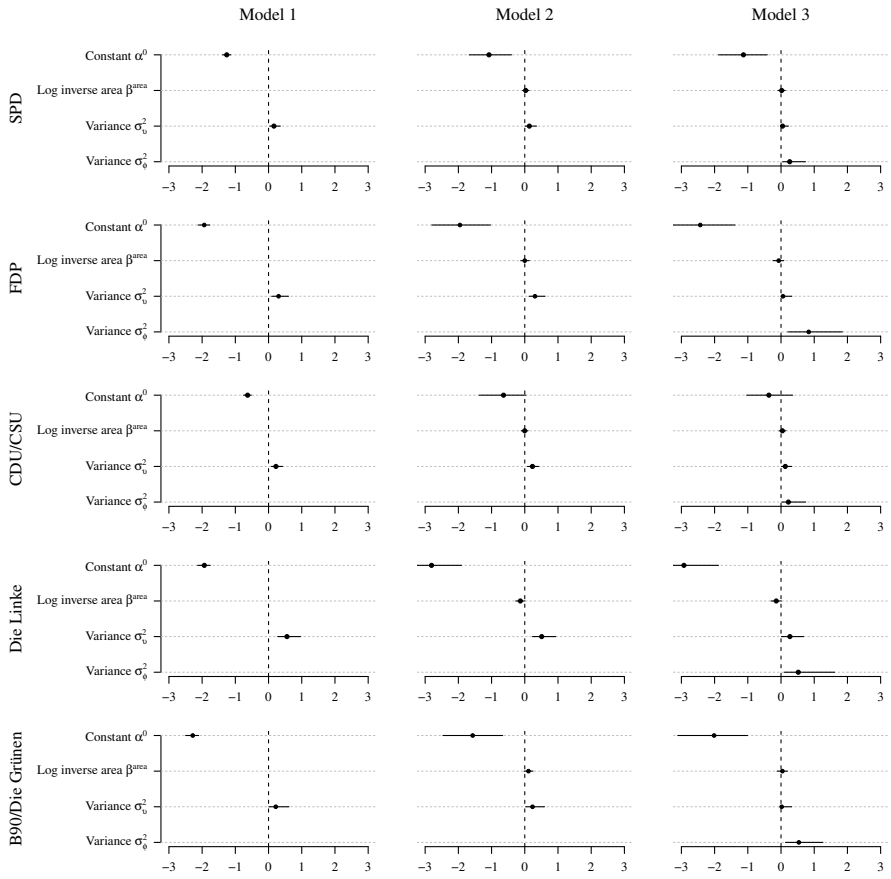


FIGURE 2: Medians of the parameters' posterior probability with 90% credible interval, CATI data

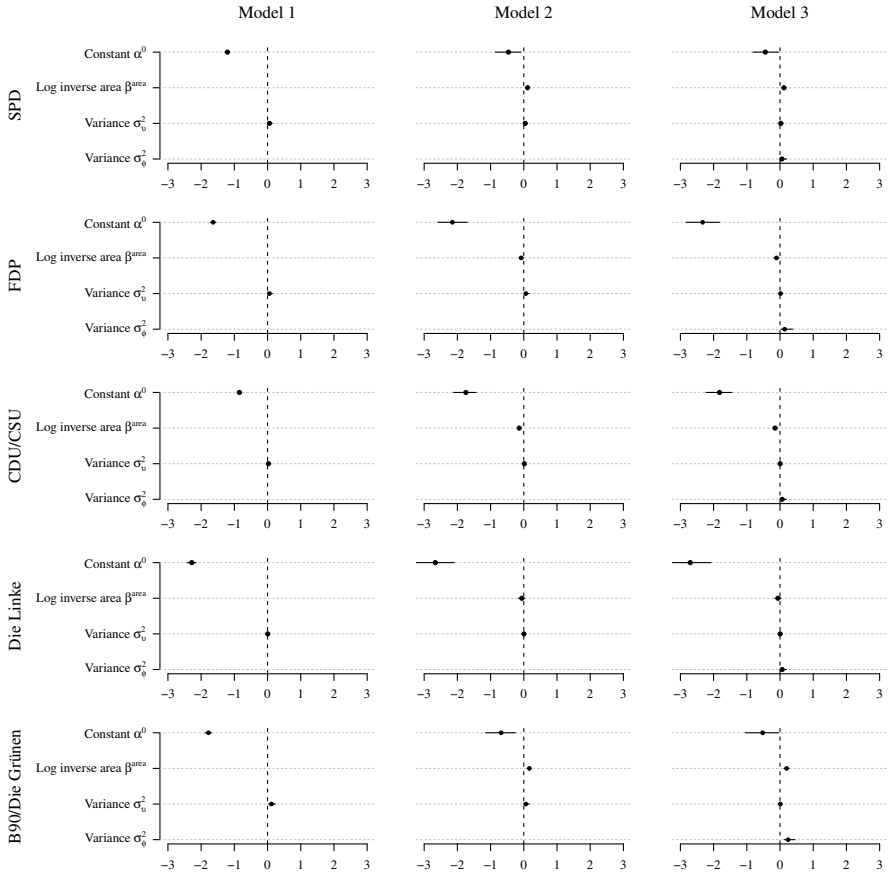


FIGURE 3: MAE vs. number of observations in district, pooled data

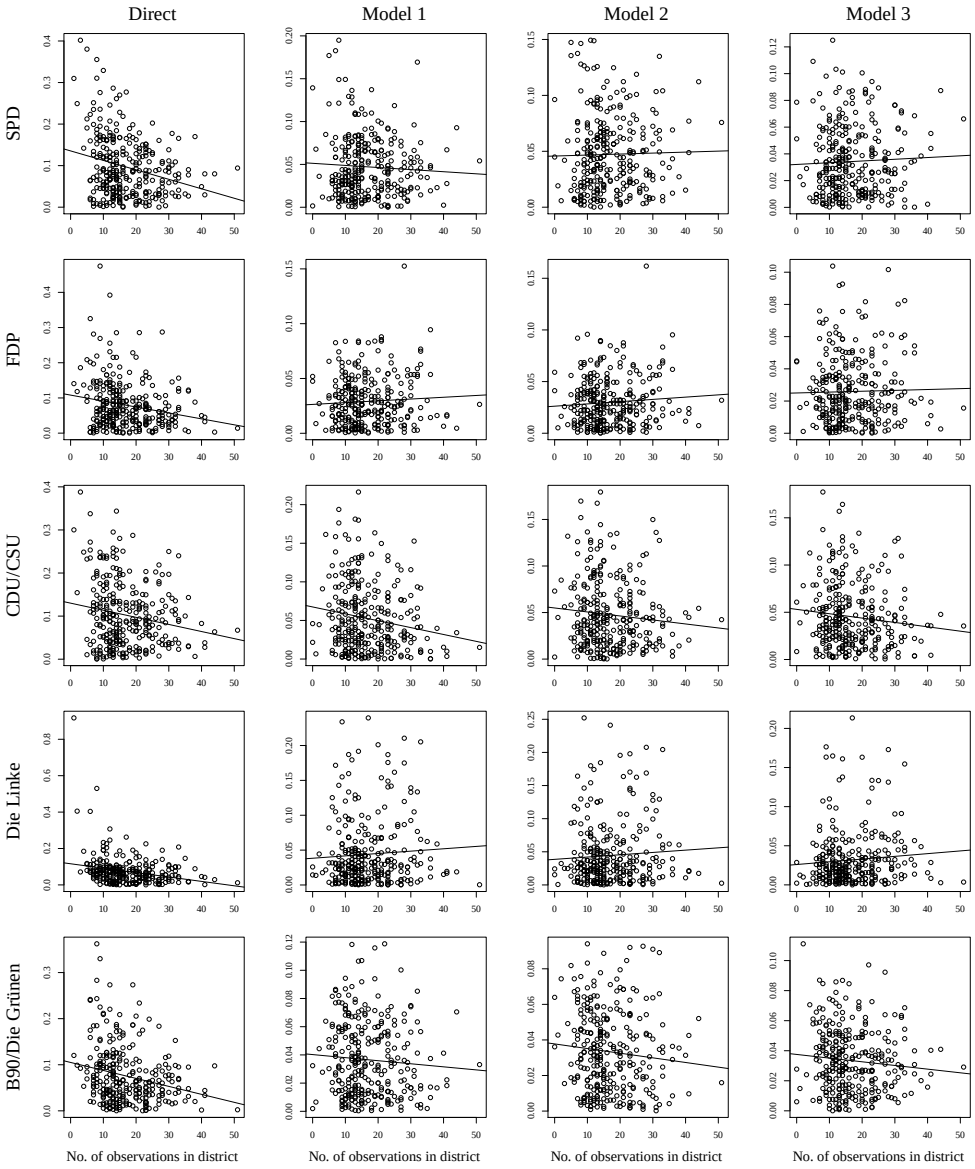


FIGURE 4: MAE (CAR-specified model) vs. number of observations in neighbor districts

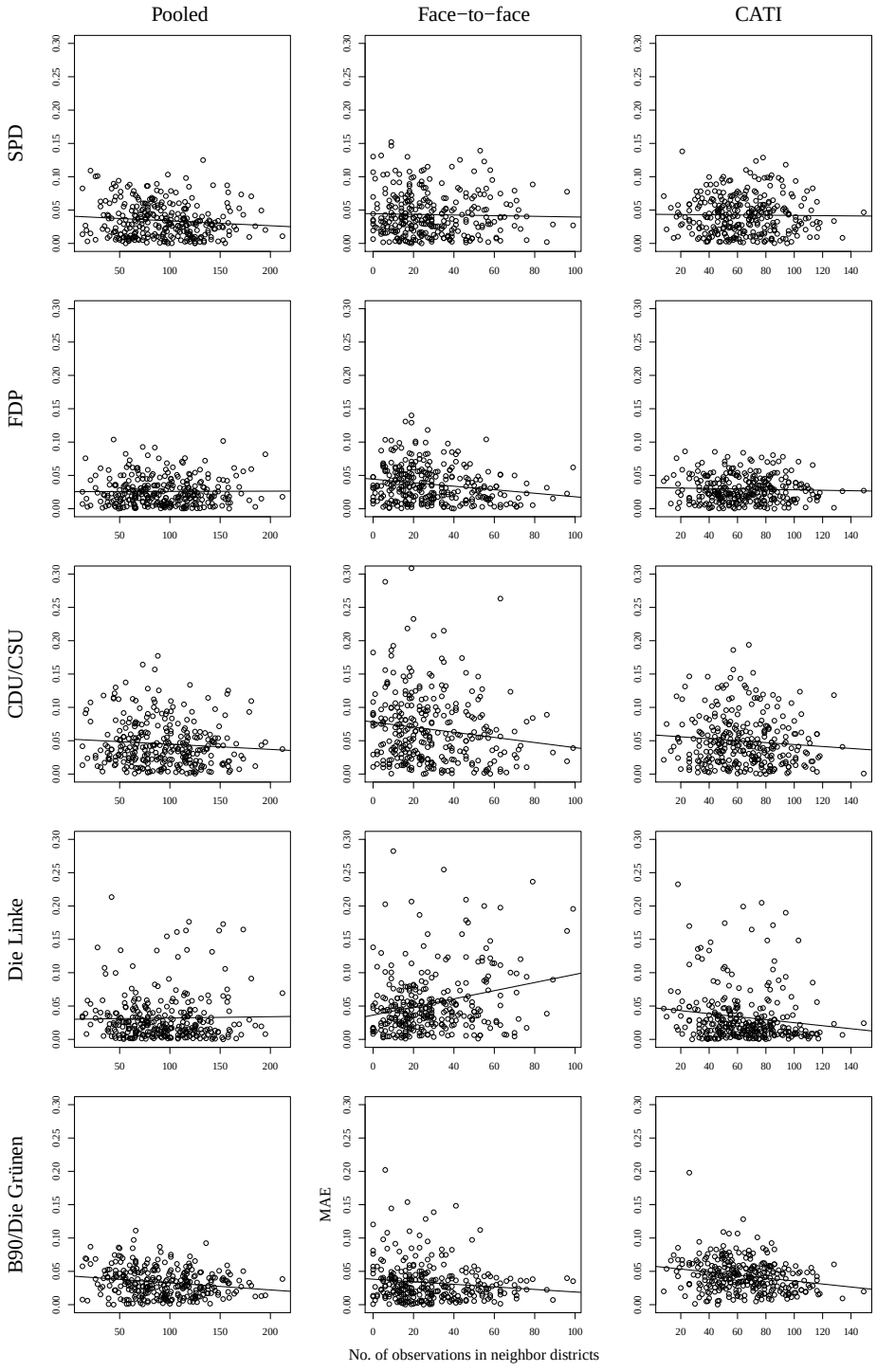
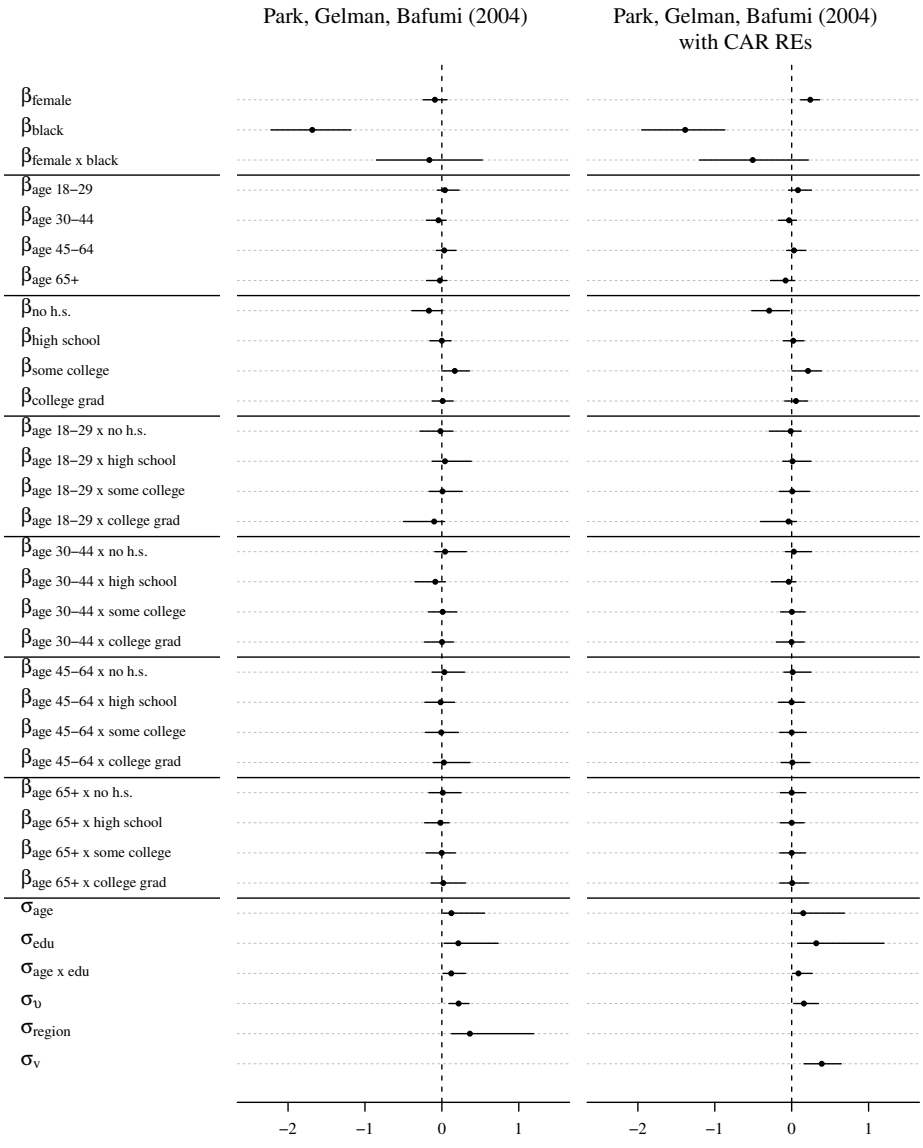


FIGURE 5: Validation results: medians of the parameters' posterior probability with 90% credible interval, for the Park et al.'s (2004) original model, and an alternative model replacing the regional RE with a CAR-structured (but regionally limited) RE.



REFERENCES

Park, David K., Andrew Gelman and Joseph Bafumi. 2004. "Bayesian Multilevel Estimation with Poststratification: State-Level Estimates from National Polls." *Political Analysis* 12:375–385.