

Online Appendix for “*Violence and Ethnic Segregation: A Computational Model Applied to Baghdad*”

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This online appendix presents additional results for the model presented in the paper. The first part performs some sensitivity checks for the parameter estimation based on empirical data. The second part presents variations of the selection of plausible runs, as described in the paper.

Unless otherwise noted, the default parameter settings are those presented in the paper: proportion of insurgents 0.02, majority group proportion in homogenous neighborhoods 0.7. Plausible runs are those where both `error_e` and `error_v` are in the best 50% of their respective distributions.

I. Model Estimation

We vary two model parameters: First, the proportion of insurgents (default value: 0.02, alternative values: 0.01, 0.03) and the proportion of the majority group in what is coded as a homogenous neighborhood in the empirical data (default: 0.7, alternative value: 0.85). We present the estimated distributions of the three main parameters of interest, `alpha_1`, `beta_1`, and `beta_2`.

Alpha_1

Prop. Insurgents \Rightarrow

0.01

0.02

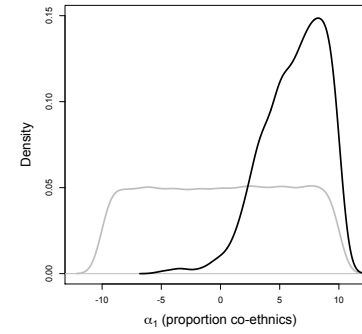
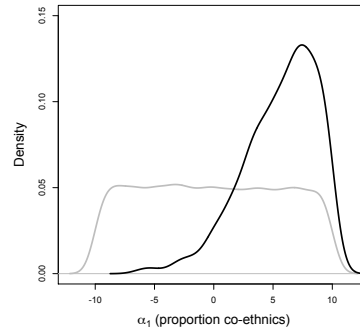
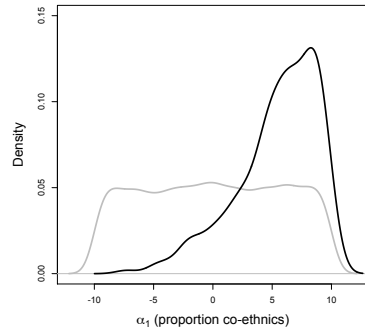
0.03

Homogeneity

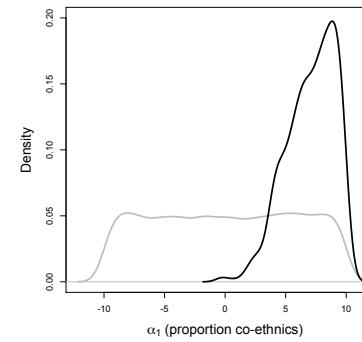
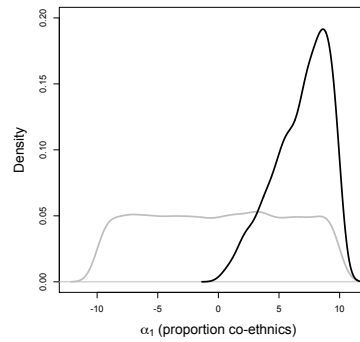
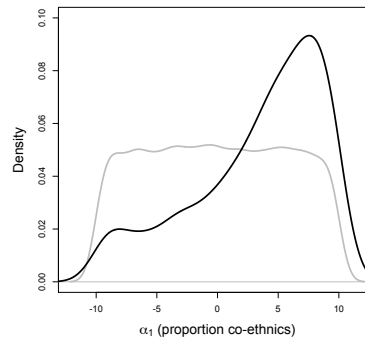
Threshold

\Downarrow

0.7



0.85



Beta_1

Prop. Insurgents ⇨

0.01

0.02

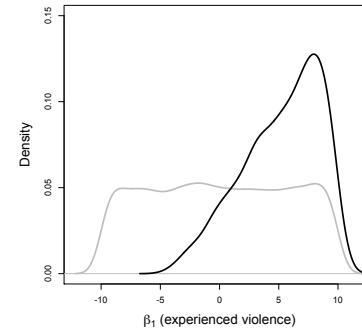
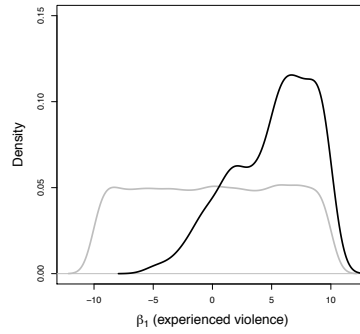
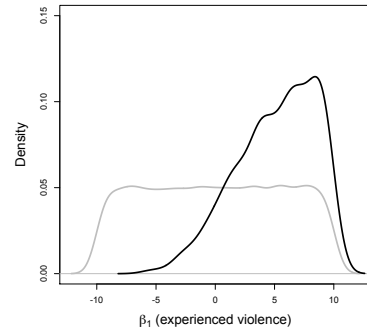
0.03

Homogeneity

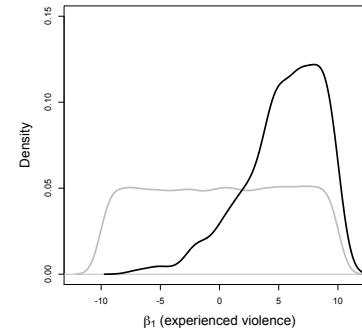
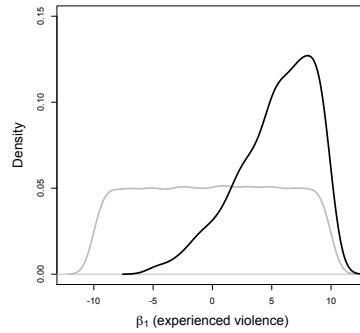
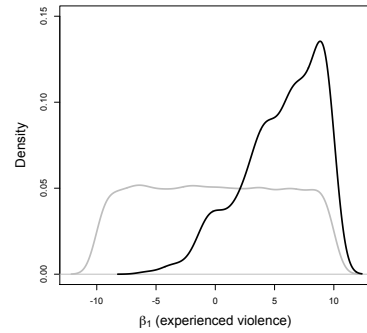
Threshold

⇩

0.7



0.85



Beta_2

Prop. Insurgents \Rightarrow

0.01

0.02

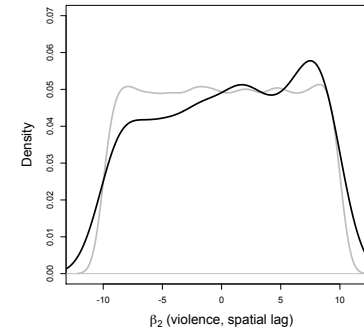
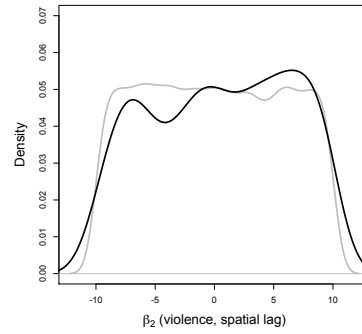
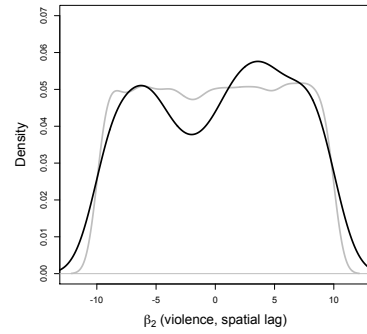
0.03

Homogeneity

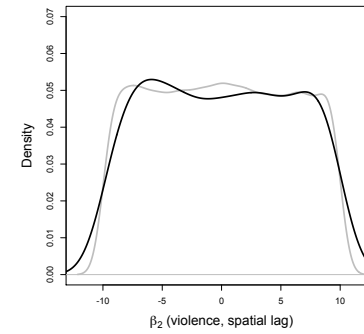
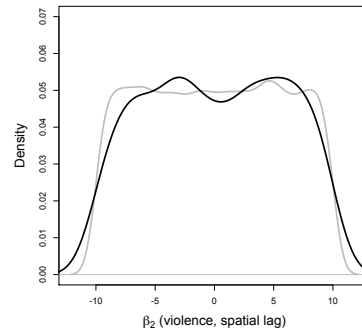
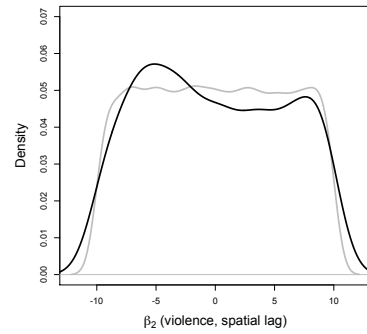
Threshold

\Downarrow

0.7



0.85



II. Definition of Plausible Runs

Next, we vary the selection of plausible runs. While the results in the paper include those runs where both error_v and error_e are in the best (lowest) 50% of their distributions, we also test alternative values of 30% (with $N=113$ plausible runs) and 40% (with $N=220$ plausible runs).

Parameter \Rightarrow

Alpha_1

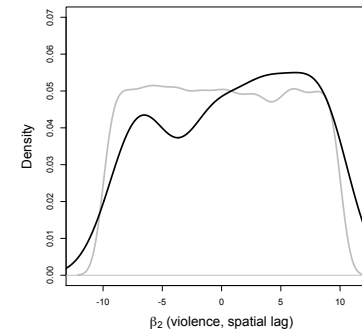
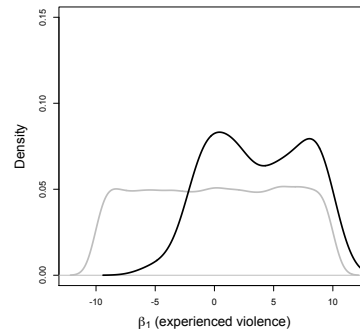
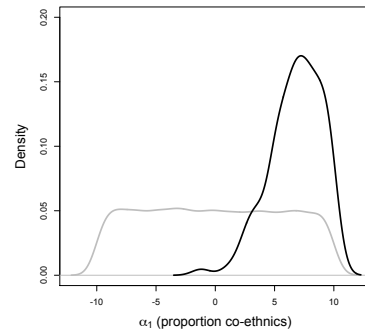
Beta_1

Beta_2

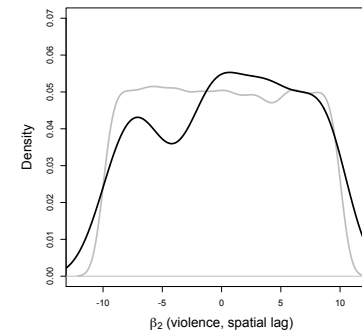
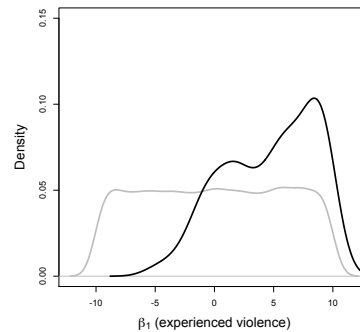
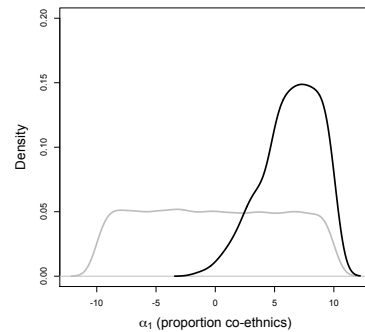
Inclusion cutoff



Lowest (best) 30%



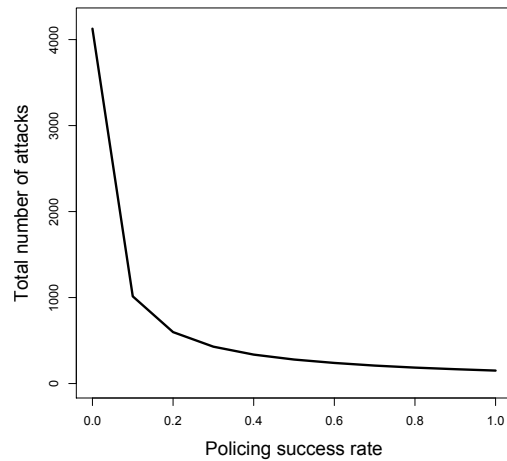
Lowest (best) 40%



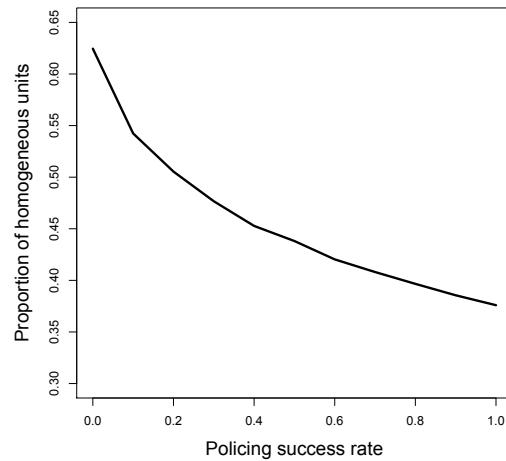
II. Counterfactual Experiments

We provide additional results generated by removing the assumption that punished attacks in the model do not generate fear. In the following, we repeat figures 6 and 7 from the main paper. The result show that the removal of this assumption is not critical to generate our main findings. The effect of policing of violence remains almost unchanged, while the segregation-reducing effect of policing is somewhat less pronounced.

(Alternative) Figure 6

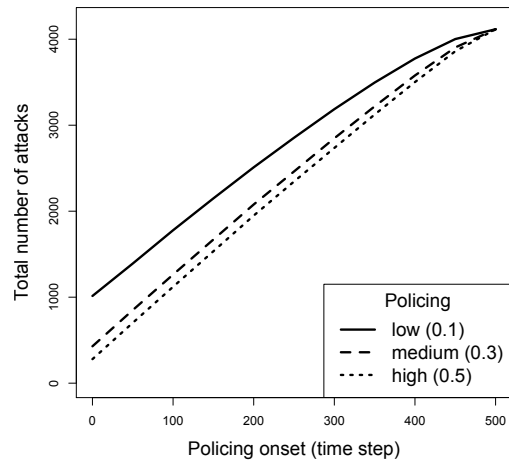


Effect of policing on the reduction of violence.

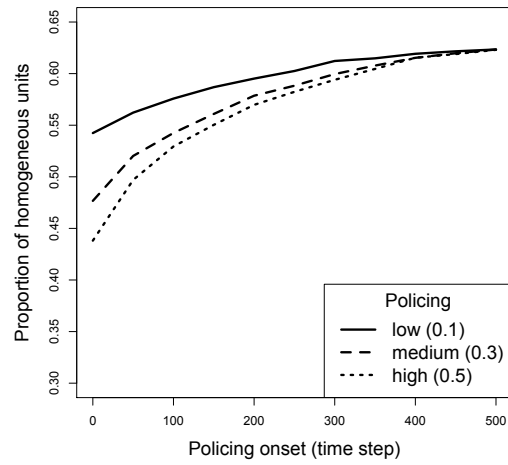


Effect of policing on the reduction of segregation.

(Alternative) Figure 7



Effect of the onset of policing on the reduction of violence.



Effect of the onset of policing on the reduction of segregation.