

Does Indiscriminate Violence Incite Insurgent Attacks?

Supplemental Appendix

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This supplemental appendix details an additional set of robustness checks that were omitted from the paper for space reasons. More specifically, the appendix details (1) re-estimation of treatment effects using three different codings of the dependent variable; (2) balance statistics for the “control neighbor” and “treated neighbor” matching, as detailed in the section on treatment externalities; and (3) regression analysis of treatment effects on the dataset of neighbors. Please note that the codebook and replication data will be posted on the author’s institutional website as well as on the journal’s dedicated page.

1 Alternative Specifications of the Dependent Variable

This section estimates treatment effects using three different codings of the dependent variable: (1) a binary variable (increase/no increase); (2) a binary variable (decrease/no decrease); and (3) as an ordinal variable (decrease/no change/increase).

2 Treatment Externalities

This section provides pre- and post-matching balance statistics for villages that were neighboring either a shelled or control village. As detailed in the paper, testing for treatment externalities was necessary to determine if neighboring villages were affected by artillery strikes. The pre-matched dataset consists of 939 observations; all deserted villages were dropped, as were villages that were simultaneously control and treated neighbors (a function of close spatial pairing in the initial match). The matched dataset consists of 840 observations (420 treated, 420 controls); matching was conducted without replacement.

3 Regression Analysis of Treatment Externalities

This section tests whether shelling generates externalities in neighboring villages. As Table 4 demonstrates, the treatment does not have a statistically significant impact on the post-treatment amount of insurgent violence in “treated neighbors” relative to “control

neighbors.” Put differently, there is no statistically significant difference between a neighbor of a shelled village and a neighbor of a control village in terms of post-treatment changes in insurgent violence.

Table 1: Different Measures of DD Estimates of Changes in Insurgent Attacks, Part 1

	Treatment only Increase/No Increase 1	Treatment with covariates Increase/No Increase 2	Treatment only Decrease/No Decrease 3	Treatment with covariates Decrease/No Decrease 4
Treatment	-0.724** (0.328)	-0.874*** (0.303)	0.542** (0.274)	0.794** (0.342)
Constant	-1.158*** (0.189)	-6.121*** (2.257)	-1.124*** (0.200)	-0.759 (2.787)
Wald(chi2)	4.87	37.69	3.92	27.43
Prob >chi2	0.027	0.0001	0.048	0.004
Log pseudolikelihood	-149.50	-135.39	-192.33	-155.52
N (Clusters)	318 (123)	318 (123)	318 (123)	318 (123)

Note: Robust cluster-adjusted (on village) standard errors in parentheses. *Significant at 10% **Significant at 5%

***Significant at 1%

Table 2: Different Measures of DD Estimates of Changes in Insurgent Attacks, Part 2

Ologit	Treatment only Ologit 5	Treatment with covariates 6
Treatment	-0.610*** (0.226)	-0.722*** (0.233)
Cutpoint	-1.165 1.200	0.388 2.981
Wald(chi2)	7.27	25.41
Prob >chi2	0.007	0.008
Log pseudolikelihood	-319.271	-296.628
N (Clusters)	318 (123)	318 (123)

Note: Robust cluster-adjusted (on village) standard errors in parentheses. Dependent variable is decrease/no change/increase. *Significant at 10% **Significant at 5% ***Significant at 1%

Table 3: Pre- and Post-Matching Balance Statistics for Neighboring Villages

Covariates	Mean Treated	Mean Control	Mean Difference	Std. Bias	Rank Sum	K-S Test
<i>Pre-Matching</i>						
POPULATION	7.014	6.983	0.031	0.018	0.826	0.094
POVERTY	2.502	2.396	0.106	0.175	0.015	0.191
TARIQA	0.008	0.034	-0.026	-0.284	0.006	-
ELEVATION	6.038	5.957	0.081	0.115	0.246	0.003
ISOLATION	4.551	4.955	-0.404	-0.170	0.037	0.177
NEIGHBOR	0.699	0.701	-0.002	-0.003	0.915	0.326
GARRISON	0.155	0.193	-0.038	-0.105	0.124	-
REBEL	0.623	0.510	0.113	0.233	0.001	-
ATTACKS	1.383	1.565	-0.182	-0.050	0.921	0.889
SWEEPS	0.182	0.206	-0.024	-0.039	0.428	1.000
HISTORY	0.680	0.690	-0.010	-0.008	0.239	0.477
<i>Post-Matching</i>						
POPULATION	6.993	7.020	-0.027	-0.015	0.884	0.465
POVERTY	2.467	2.414	0.053	0.086	0.315	0.994
TARIQA	0.010	0.012	-0.002	-0.021	0.738	-
ELEVATION	6.011	5.983	0.028	0.039	0.632	0.110
ISOLATION	4.567	4.821	-0.254	-0.103	0.101	0.699
NEIGHBOR	0.753	0.721	0.032	0.050	0.498	0.130
GARRISON	0.174	0.205	-0.031	-0.082	0.253	-
REBEL	0.590	0.560	0.030	0.061	0.365	-
ATTACKS	1.552	1.720	-0.168	-0.044	0.736	0.864
SWEEPS	0.205	0.224	-0.019	-0.029	0.578	1.000
HISTORY	0.690	0.707	-0.017	-0.014	0.499	0.985

Note: All populated villages within 5km2 of the shelled village or its control. N=939 in full data, 840 in matched (420 treated, 420 control).

Table 4: Does Shelling Impact Neighboring Villages?

	Treatment only 1	Treatment with covariates 2
Treatment	-0.024 (0.111)	-0.016 (0.109)
Constant	-0.098 (0.079)	1.660* (0.848)
F	(1, 128) = 0.05	(12, 128) = 5.38
Prob > F	0.831	0.0001
N (Clusters)	840 (129)	840 (129)

Note: Robust cluster-adjusted (on village) standard errors in parentheses. *Significant at 10% **Significant at 5% ***Significant at 1%