

# Ethnicity and Violence During Civil War

## Supplemental Appendix

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This appendix contains supplemental tests that were omitted from the manuscript due to space considerations. Briefly, the memo has four sections:

- An overview of pre-matching statistics for the Russian/Chechen and Russian/Joint sweep operations;
- OLS regression of treatment effects using the full (i.e. unmatched) dataset for both Russian/Chechen and Russian/Joint operations
- Weibull regression estimates of treatment effects using 14 and 30 day treatment windows for both Russian/Chechen and Russian/Joint operations.
- A comparison of *Zapad* (the non-defector staffed Chechen battalion) versus defector- and Russian-staffed sweep operations.

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Table 1: Pre-Balance Summary Statistics and Tests: Russian and Chechen Sweeps

Pretreatment Covariates	Mean Treated	Mean Control	Mean Difference	Std. Bias	Rank Sum Test	K-S Test
<i>Demographics</i>						
Population	8.657	8.816	-0.159	-0.104	0.344	0.688
Tariqa	0.076	0.081	-0.005	-0.019	0.849	-
Poverty	1.917	1.963	-0.056	-0.098	0.300	0.431
<i>Spatial</i>						
Elevation	5.078	5.390	-0.312	-0.274	0.003	0.000
Isolation	1.007	1.178	-0.171	-0.260	0.003	0.007
Groznyy	0.131	0.114	0.017	0.050	0.569	-
<i>War Dynamics</i>						
TAC	0.241	0.210	0.031	0.072	0.419	-
Garrison	0.379	0.345	0.034	0.070	0.451	-
Rebel	0.510	0.476	0.034	0.068	0.471	-
<i>Selection</i>						
Pre-Sweep Violence	3.083	3.354	-0.271	-0.072	0.594	0.163
Large-scale Theft	0.034	0.179	-0.145	-0.792	0.000	-
Death	0.117	0.245	-0.128	-0.398	0.002	-
<i>Violence Inflicted</i>						
Total Abuse	0.970	1.419	-0.449	0.406	0.022	0.001
Prior Sweeps	1.729	1.447	0.282	0.256	0.003	0.002
<i>Other</i>						
Month	7.428	6.513	0.915	0.268	0.007	0.038
Year	2004.159	2001.889	2.270	1.991	0.000	0.000

Note: 603 observations.

Table 2: Pre-Balance Summary Statistics and Tests: Russian and Joint Sweeps

Pretreatment Covariates	Mean Treated	Mean Control	Mean Difference	Std. Bias	Rank Sum Test	K-S Test
<i>Demographics</i>						
Population	8.986	8.819	0.167	0.145	0.630	0.990
Tariqa	0.078	0.085	-0.007	0.026	0.833	-
Poverty	2.026	1.963	0.063	0.123	0.283	0.988
<i>Spatial</i>						
Elevation	5.338	5.388	-0.050	-0.076	0.475	0.569
Isolation	1.113	1.178	-0.065	0.106	0.453	0.933
Groznyy	0.130	0.114	0.016	0.047	0.679	-
<i>War Dynamics</i>						
TAC	0.221	0.210	0.011	0.026	0.824	-
Garrison	0.351	0.345	0.006	0.013	0.923	-
Rebel	0.403	0.476	-0.073	0.148	0.233	-
<i>Selection</i>						
Pre-Sweep Violence	3.312	3.356	-0.044	0.011	0.941	0.982
Large-scale Theft	0.117	0.179	-0.082	0.254	0.180	-
Death	0.169	0.247	-0.078	0.206	0.167	-
<i>Violence Inflicted</i>						
Total Abuse	1.700	1.430	0.270	0.145	0.284	0.889
Prior Sweeps	1.935	1.451	0.484	0.490	0.000	0.003
<i>Other</i>						
Month	6.545	6.507	0.038	0.011	0.958	0.990
Year	2003.299	2001.886	1.413	1.019	0.000	0.000

Note: 535 observations.

Table 3: Treatment Effects (Russian/Chechen Patrols, full sample): OLS Regression

	1	2	3	4
	Treatment only	All covariates	Treatment only (Groznyy dropped)	All covariates (Groznyy dropped)
Treatment	-1.184*** (0.205)	-1.212*** (0.307)	-1.040*** (0.224)	-0.868** (0.306)
Population		0.268** (0.084)		0.250** (0.085)
Tariqa		0.316 (0.355)		0.493 (0.434)
Poverty		1.033 <sup>†</sup> (0.579)		0.599 (0.475)
Elevation		-0.171 (0.184)		-0.020 (0.155)
Isolation		0.084 (0.266)		0.167 (0.245)
Groznyy		2.006* (0.853)		
TAC		0.266 (0.332)		0.359 (0.390)
Garrison		-0.205 (0.378)		0.172 (0.431)
Rebel		-0.205 (0.308)		0.022 (0.279)
Pre-Sweep Violence		-0.310** (0.101)		-0.527*** (0.071)
Large-scale Theft		0.148 (0.248)		0.217 (0.251)
Death		-0.061 (0.206)		-0.012 (0.250)
Total Abuse		-0.065 (0.065)		-0.060 (0.067)
Prior Sweeps		0.184 (0.145)		0.300 <sup>†</sup> (0.174)
Month		-0.030 (0.024)		-0.017 (0.023)
Year		-0.032 (0.118)		-0.176 (0.121)
<i>Constant</i>	0.170 (0.140)	62.176 (236.024)	0.135 (0.156)	350.538 (242.630)
N (Clusters)	603 (121)	603 (121)	532 (117)	532 (117)
$R^2$	0.04	0.09	0.03	0.29
F Test	33.24***	8.79***	21.61***	13.23***

*Note:* Robust standard errors clustered on individual populated settlements are listed in parentheses. <sup>†</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Table 4: Treatment Effects (Russian/Joint Patrols, full sample): OLS Regression

	1	2	3	4
	Treatment only	All covariates	Treatment only (Groznyy dropped)	All covariates (Groznyy dropped)
Treatment	-0.082 (0.291)	-0.136 (0.410)	-0.004 (0.302)	-0.034 (0.332)
Population		0.239* (0.101)		0.241* (0.1045)
Tariqa		-0.165 (0.436)		-0.122 (0.526)
Poverty		-0.059 (0.357)		-0.475 (0.548)
Elevation		0.205 (0.257)		0.396 (0.271)
Isolation		0.129 (0.271)		0.190 (0.293)
Groznyy		1.212 <sup>†</sup> (0.717)		
TAC		0.436 (0.380)		0.491 (0.437)
Garrison		-0.110 (0.537)		0.226 (0.596)
Rebel		0.067 (0.285)		0.246 (0.307)
Pre-Sweep Violence		-0.305*** (0.091)		-0.485*** (0.067)
Large-scale Theft		0.180 (0.305)		0.234 (0.297)
Death		0.158 (0.227)		0.265 (0.274)
Total Abuse		-0.040 (0.066)		-0.058 (0.068)
Prior Sweeps		0.118 (0.142)		0.215 (0.175)
Month		-0.016 (0.028)		0.005 (0.026)
Year		-0.013 (0.132)		-0.159 (0.126)
<i>Constant</i>	0.172 (0.141)	24.467 (263.700)	0.138 (0.158)	315.975 (250.928)
N (Clusters)	535 (105)	535 (105)	473 (101)	473 (101)
$R^2$	0.00	0.15	0.00	0.23
F Test	0.08	5.74***	0.00	11.52***

*Note:* Robust standard errors clustered on individual populated settlements are listed in parentheses. <sup>†</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Table 5: Treatment Effects on Insurgent Attack Hazard: Russian and Chechen Sweeps

	14-day Treatment only	14-day All covariates	30-day Treatment only	30-day All covariates
Treatment	0.393*** (0.099)	0.366*** (0.094)	0.446*** (0.096)	0.418*** (0.090)
N (Clusters)	290 (88)	290 (88)	290 (88)	290 (88)
Log likelihood	-362.83	-342.03	-411.25	-395.39
LR chi2	13.90***	55.49***	14.07***	45.80***
LR Test $\theta$	74.93***	17.94***	120.01***	32.51***
Shape Parameter	0.60 (0.05)	0.64 (0.06)	0.74 (0.05)	0.76 (0.07)

*Note:* Weibull regression with gamma distribution and frailty terms centered on individual villages (standard errors in parentheses).  $^{\dagger} p < 0.10$ ,  $^* p < 0.05$ ,  $^{**} p < 0.01$ ,  $^{***} p < 0.001$ .

Table 6: Treatment Effects on Insurgent Attack Hazard: Russian and Joint Sweeps

	14-day Treatment only	14-day All covariates	30-day Treatment only	30-day All covariates
Treatment	0.671 (0.194)	0.728 (0.215)	0.722 (0.184)	0.795 (0.198)
N (Clusters)	154 (54)	154 (54)	154 (54)	154 (54)
Log likelihood	-219.77	-205.63	-252.11	-232.60
LR chi2	1.90	30.17*	1.63	40.65***
LR Test $\theta$	25.27***	9.15***	47.65***	13.12***
Shape Parameter	0.55 (0.06)	0.62 (0.07)	0.74 (0.07)	0.81 (0.07)

*Note:* Weibull regression with gamma distribution and frailty terms centered on individual villages (standard errors in parentheses).  $^{\dagger} p < 0.10$ ,  $^* p < 0.05$ ,  $^{**} p < 0.01$ ,  $^{***} p < 0.001$ .

Table 7: Insurgent Responses to Non-Defector Units Versus Defector- and Russian-Staffed Operations

	ND/D Treatment only	ND/D All covariates	ND/R Treatment only	ND/R All covariates
Non-Defector	0.137 (0.519)	-0.243 (0.412)	-1.23* (0.52)	-0.80 (0.53)
Constant	-1.03*** (0.16)	-438.13 (273.25)	0.34* (0.17)	1468.15** (581.86)
N (Clusters)	145 (70)	145 (70)	137 (46)	137 (46)
$R^2$	0.00	0.23	0.06	0.31
F Test	0.07	4.93***	5.62**	5.26***

*Note:* Comparison of (1) non-defector Chechen unit *Zapad* versus defector Chechen units and (2) non-defector Chechen unit *Zapad* versus Russian-only sweeps. Clustered standard errors in parentheses. <sup>†</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .