

Online appendix for:  
Violence, co-optation, and postwar voting in Guatemala

Francisco Villamil

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## A Territorial changes in municipalities

A ‘minimum denomination’ of municipalities was developed by joining together those municipalities where changes took place, which consisted mainly of splits. Thus, if a new municipality was created by splitting off a bigger one, the two are merged again in the dataset, so as to ensure compatibility between data sources across time. In particular, the dataset contains observations that range from 1973 to 2015, during which there were 15 territorial changes at the local level. Although one variable goes further back in time (namely rebel activity before 1978) only two territorial changes took place before that date: the formation of Melchor de Mencos in 1962 and Poptún in 1966. Given that no rebel activity was recorded in the whole territory of Petén before 1971, these two changes were not implemented. Table A1 below lists new municipalities that formed since 1973, along with the parent municipality they are merged to in the dataset.

**Table A1:** Municipality changes in Guatemala, 1973–2015

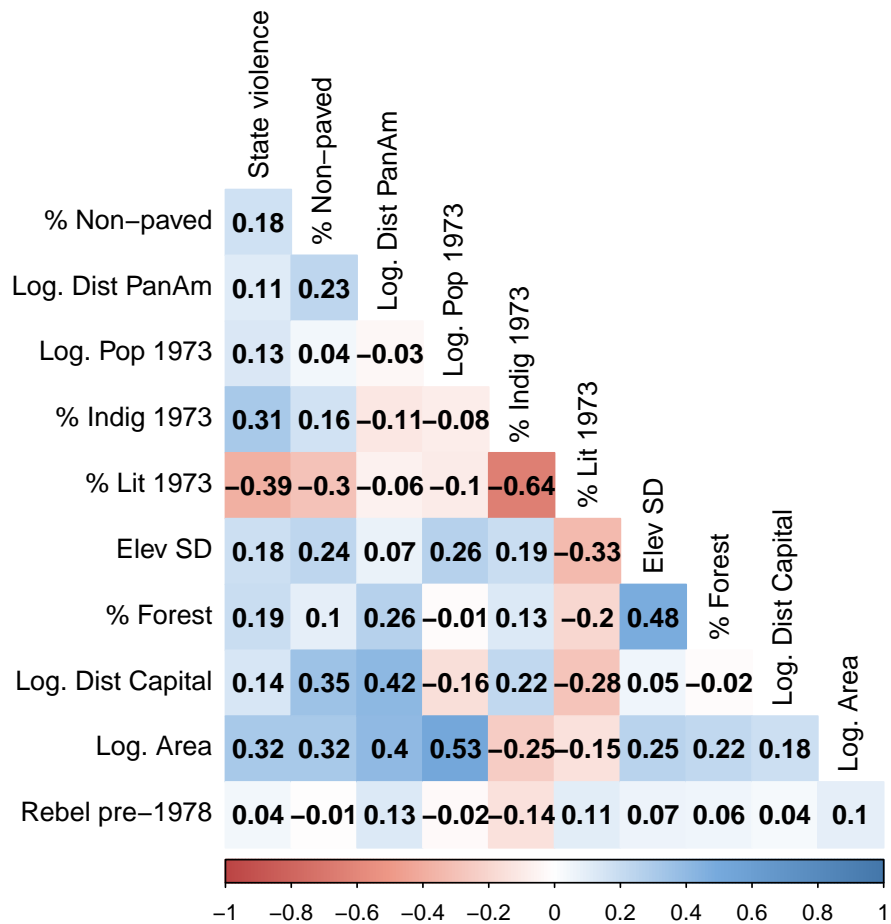
Department	New municipality	Date	Parent municipality
Alta Verapaz	Fray Bartolomé de las Casas	1980	Santa María Cahabón
Alta Verapaz	La Tinta	1999	Panzás
Alta Verapaz	Raxruhá	2008	Chisec
Escuintla	Nueva Concepción	1974	Tiquisate
Escuintla	Sipacate	2015	La Gomera
Huehuetenango	Unión Cantinil	2005	Chiantla
Peten	El Chal	2014	Dolores
Peten	Las Cruces	2011	La Libertad
Quiche	Chicamán	1984	Uspantán
Quiche	Ixcán	1985	Uspantán
Quiche	Pachalúm	1986	Joyabaj
San Marcos	La Blanca	2014	Ocós
Suchitepequez	San Jose La Maquiná	2014	Cuyotenango
Zacapa	San Jorge	2014	Zacapa

## B Summary statistics

Table A2 shows the summary statistics for all the covariates included in the analyses, while figure A1 shows a correlation matrix of these same variables.

**Table A2:** Summary statistics for the covariates

Variable	Min	Q1	Median	Mean	Q3	Max
Log. State killings / 1000hab	0	0	0	0.63	0.66	5.36
% Non-paved roads	0	0.73	0.84	0.8	1	1
Log. Distance to PanAm Hwy	0	1.86	2.95	2.64	3.65	5.62
Log. Population 1973	6.34	8.59	9.16	9.17	9.75	13.46
% Indigenous 1973	0	0.11	0.61	0.52	0.9	1
% Literate 1973	0.04	0.24	0.39	0.38	0.5	0.89
Elevation SD	4.38	140.17	224.15	262.36	351.29	764.9
% Forest cover	0	0.29	0.54	0.52	0.74	0.99
Log. distance to capital	0	3.94	4.47	4.32	4.86	5.61
Log. Area	1.53	4.06	4.88	4.88	5.52	9.01



**Figure A1:** Correlation matrix among covariates

## C Accessibility and violence against civilians

This section tests the assumption that road accessibility was not a driver of wartime violence by either the state or the rebels. As in the main text, the dependent variables are log-transformed and weighted by population, i.e. logged number of killings for every 1000 inhabitants.

Table A3 shows the results of linear models explaining wartime violence by the state, while table A4 repeats these analyses for a subsample of the most affected departments. In both cases, models with and without control variables, and with and without department fixed effects are included.

State violence does not have any relevant relationship with the two proxy variables used as interactions. If anything, it has a positive relationship with the share of non-paved roads in Model 1 in table A3, but the effect disappears once either control variables or department fixed effects are included (or both). Regarding the other variables, state violence is mainly explained by the share of indigenous population in each municipality and by its size. However, when limiting the sample to the most affected departments and including fixed effects, the share of indigenous population stops being significant, suggesting regionally concentrated dynamics.

Table A5 shows the results for models equivalent to the previous ones but using rebel violence as the dependent variable, while table A6 shows the same models but for municipalities in the most affected departments. Although patterns of rebel violence should not be as relevant to the theoretical argument, it is important to check whether any of the two accessibility proxies is related to local wartime activity. Again, none of the two proxies shows any relationship to rebel violence. Rebel violence is also poorly explained by the rest of the variables, perhaps because of the relatively low incidence of violence by the rebels.

The results show that the two accessibility variables used as proxies for the level of exposure to prewar mobilization are not related to the intensity of the conflict in each municipality.

**Table A3:** Determinants of wartime violence by the state

	(1)	(2)	(3)	(4)
(Intercept)	−0.250 (0.261)	1.208** (0.394)	−0.196 (0.915)	−0.185 (1.217)
% Roads non-paved	0.900** (0.314)	−0.139 (0.263)	−0.169 (0.309)	−0.328 (0.273)
Log. Distance to Pan-Am Hwy	0.062 (0.046)	0.089 (0.056)	−0.026 (0.049)	0.101 <sup>+</sup> (0.058)
Log. Population 1973			−0.110 (0.085)	0.030 (0.085)
% Indigenous 1973			1.130*** (0.229)	0.487 <sup>+</sup> (0.262)
% Literate 1973			−0.901 <sup>+</sup> (0.485)	0.177 (0.489)
Elevation SD			−0.000 (0.000)	−0.000 (0.000)
Forest cover			0.211 (0.274)	0.216 (0.253)
Log. Dist to capital			−0.071 (0.094)	−0.208 (0.201)
Log. Area			0.422*** (0.070)	0.271** (0.083)
Rebel violence pre-78			2.053 (1.553)	2.080 (1.300)
Department FE	No	Yes	No	Yes
Observations	325	325	325	325
R <sup>2</sup>	0.037	0.529	0.285	0.575
Adjusted R <sup>2</sup>	0.031	0.493	0.262	0.530

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Department FEs not shown.

**Table A4:** Determinants of wartime violence by the state (most affected departments)

	(1)	(2)	(3)	(4)
(Intercept)	1.524 (1.059)	1.008 (1.159)	-3.137 (2.926)	-3.999 (4.097)
% Roads non-paved	-0.003 (1.256)	-0.783 (1.386)	0.114 (1.461)	-0.947 (1.382)
Log. Distance to Pan-Am Hwy	0.091 (0.099)	0.266 (0.171)	0.043 (0.135)	0.190 (0.169)
Log. Population 1973			0.473 <sup>+</sup> (0.257)	0.333 (0.252)
% Indigenous 1973			0.783 (0.828)	1.069 (0.855)
% Literate 1973			-1.052 (1.383)	1.279 (1.583)
Elevation SD			-0.001 (0.001)	-0.002 (0.001)
Forest cover			-1.154 (0.720)	0.422 (0.741)
Log. Dist to capital			-0.206 (0.302)	-0.511 (0.748)
Log. Area			0.373 <sup>+</sup> (0.198)	0.601 <sup>**</sup> (0.212)
Rebel violence pre-78			5.043 (6.798)	3.329 (6.325)
Department FE	No	Yes	No	Yes
Observations	99	99	99	99
R <sup>2</sup>	0.010	0.242	0.234	0.412
Adjusted R <sup>2</sup>	-0.010	0.183	0.147	0.305

*Note:* <sup>+</sup> $p < 0.1$ ; <sup>\*</sup> $p < 0.05$ ; <sup>\*\*</sup> $p < 0.01$ ; <sup>\*\*\*</sup> $p < 0.001$ . Department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

**Table A5:** Determinants of wartime violence by the rebels

	(1)	(2)	(3)	(4)
(Intercept)	-0.021 (0.038)	-0.049 (0.080)	0.031 (0.153)	-0.276 (0.257)
% Roads non-paved	0.024 (0.046)	-0.005 (0.054)	-0.043 (0.052)	-0.048 (0.058)
Log. Distance to Pan-Am Hwy	0.011 (0.007)	0.012 (0.011)	0.003 (0.008)	0.006 (0.012)
Log. Population 1973			-0.017 (0.014)	-0.009 (0.018)
% Indigenous 1973			0.057 (0.038)	0.016 (0.055)
% Literate 1973			-0.006 (0.081)	-0.024 (0.103)
Elevation SD			0.000 (0.000)	0.000 (0.000)
Forest cover			-0.028 (0.046)	0.012 (0.053)
Log. Dist to capital			-0.002 (0.016)	0.034 (0.042)
Log. Area			0.034** (0.012)	0.034 <sup>+</sup> (0.018)
Rebel violence pre-78			0.138 (0.260)	0.196 (0.275)
Department FE	No	Yes	No	Yes
Observations	325	325	325	325
R <sup>2</sup>	0.010	0.070	0.046	0.097
Adjusted R <sup>2</sup>	0.004	-0.002	0.016	0.002

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Department FEs not shown.



**Table A6:** Determinants of wartime violence by the rebels (most affected departments)

	(1)	(2)	(3)	(4)
(Intercept)	0.019 (0.188)	-0.090 (0.231)	0.309 (0.567)	-0.592 (0.882)
% Roads non-paved	-0.004 (0.223)	0.052 (0.276)	-0.138 (0.283)	-0.172 (0.298)
Log. Distance to Pan-Am Hwy	0.017 (0.018)	0.009 (0.034)	-0.008 (0.026)	-0.018 (0.036)
Log. Population 1973			-0.045 (0.050)	-0.029 (0.054)
% Indigenous 1973			0.045 (0.160)	0.065 (0.184)
% Literate 1973			-0.108 (0.268)	-0.035 (0.341)
Elevation SD			0.000 (0.000)	0.000 (0.000)
Forest cover			-0.056 (0.139)	0.012 (0.160)
Log. Dist to capital			-0.025 (0.058)	0.133 (0.161)
Log. Area			0.067 <sup>+</sup> (0.038)	0.056 (0.046)
Rebel violence pre-78			1.829 (1.317)	1.367 (1.362)
Department FE	No	Yes	No	Yes
Observations	99	99	99	99
R <sup>2</sup>	0.011	0.050	0.091	0.137
Adjusted R <sup>2</sup>	-0.010	-0.023	-0.012	-0.019

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

## D Full tables (main text)

Tables A7, A8, and A9 show full results, i.e. including coefficients for control variables, for the results tables shown in the main text.

**Table A7:** Base models on wartime violence and postwar voting

	URNG	FRG	URNG	FRG
			Most affected departments	
	(1)	(2)	(3)	(4)
(Intercept)	0.000 (0.039)	0.511*** (0.067)	0.021 (0.101)	0.448** (0.167)
State-led killings	0.007*** (0.002)	−0.001 (0.003)	0.005+ (0.003)	0.001 (0.004)
Log. Population 1973	0.006* (0.003)	−0.002 (0.005)	0.001 (0.006)	0.005 (0.010)
% Indigenous 1973	0.035*** (0.008)	−0.014 (0.014)	0.043* (0.021)	−0.021 (0.035)
% Literate 1973	−0.040* (0.016)	0.002 (0.027)	−0.046 (0.039)	0.087 (0.064)
Elevation SD	−0.000+ (0.000)	−0.000 (0.000)	−0.000* (0.000)	0.000 (0.000)
Forest cover	0.016* (0.008)	−0.022 (0.014)	0.042* (0.018)	−0.032 (0.030)
Log. Dist to capital	0.004 (0.006)	0.006 (0.010)	0.008 (0.018)	0.002 (0.030)
Log. Area	0.005* (0.003)	0.004 (0.004)	0.007 (0.005)	−0.003 (0.009)
Rebel violence pre-78	0.011 (0.041)	0.015 (0.071)	−0.054 (0.156)	−0.027 (0.258)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,281	491	394
R <sup>2</sup>	0.442	0.814	0.387	0.731
Adjusted R <sup>2</sup>	0.430	0.809	0.364	0.719

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

**Table A8:** Wartime violence, local road network, and voting

	URNG	FRG	URNG	FRG
			Most affected departments	
	(1)	(2)	(3)	(4)
(Intercept)	−0.032 (0.039)	0.530*** (0.068)	−0.158 (0.108)	0.602*** (0.181)
State-led killings	0.044*** (0.007)	−0.031* (0.013)	0.081*** (0.017)	−0.069* (0.028)
% Non-paved roads	0.004 (0.009)	0.009 (0.016)	0.078* (0.038)	−0.042 (0.064)
Violence × Non-paved	−0.043*** (0.008)	0.034* (0.014)	−0.084*** (0.018)	0.077* (0.030)
Log. Population 1973	0.006* (0.003)	−0.001 (0.005)	0.001 (0.006)	0.006 (0.010)
% Indigenous 1973	0.038*** (0.008)	−0.018 (0.014)	0.050* (0.021)	−0.029 (0.035)
% Literate 1973	−0.030 <sup>+</sup> (0.016)	−0.007 (0.027)	−0.025 (0.039)	0.062 (0.064)
Elevation SD	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)
Forest cover	0.014 <sup>+</sup> (0.008)	−0.021 (0.014)	0.033 <sup>+</sup> (0.018)	−0.024 (0.030)
Log. Dist to capital	0.008 (0.006)	0.001 (0.011)	0.028 (0.019)	−0.019 (0.031)
Log. Area	0.006* (0.003)	0.003 (0.005)	0.007 (0.005)	−0.003 (0.009)
Rebel violence pre-78	0.007 (0.041)	0.019 (0.071)	−0.026 (0.153)	−0.062 (0.256)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,281	491	394
R <sup>2</sup>	0.453	0.815	0.415	0.737
Adjusted R <sup>2</sup>	0.440	0.810	0.390	0.723

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

**Table A9:** Wartime violence, distance to PanAm Highway, and voting

	URNG	FRG	URNG	FRG
			Most affected departments	
	(1)	(2)	(3)	(4)
(Intercept)	0.015 (0.038)	0.506*** (0.067)	0.052 (0.100)	0.433* (0.168)
State-led killings	0.024*** (0.004)	-0.004 (0.006)	0.022*** (0.005)	-0.003 (0.009)
Log. Dist to Pan-Am Hwy	0.001 (0.002)	0.004 (0.003)	0.001 (0.004)	0.004 (0.007)
Violence $\times$ Dist to Pan-Am	-0.006*** (0.001)	0.001 (0.002)	-0.006*** (0.002)	0.001 (0.003)
Log. Population 1973	0.003 (0.003)	-0.001 (0.005)	-0.006 (0.006)	0.008 (0.011)
% Indigenous 1973	0.037*** (0.008)	-0.013 (0.014)	0.043* (0.021)	-0.024 (0.035)
% Literate 1973	-0.035* (0.015)	0.003 (0.027)	-0.046 (0.039)	0.082 (0.064)
Elevation SD	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Forest cover	0.014+ (0.008)	-0.024+ (0.014)	0.038* (0.018)	-0.034 (0.031)
Log. Dist to capital	0.004 (0.006)	0.001 (0.011)	0.009 (0.018)	0.000 (0.030)
Log. Area	0.007** (0.003)	0.003 (0.005)	0.012* (0.005)	-0.004 (0.009)
Rebel violence pre-78	0.020 (0.041)	0.011 (0.071)	-0.019 (0.154)	-0.037 (0.259)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,281	491	394
R <sup>2</sup>	0.453	0.814	0.407	0.732
Adjusted R <sup>2</sup>	0.441	0.809	0.382	0.718

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

## E Results using only CEH data for violence variables

Tables A10 and A11 replicate the main results using only CEH data to measure wartime state violence.

**Table A10:** Wartime violence (using only CEH), local road network, and voting

	URNG	FRG	URNG	FRG
			Most affected departments	
	(1)	(2)	(3)	(4)
(Intercept)	−0.029 (0.038)	0.516*** (0.066)	−0.072 (0.106)	0.548** (0.178)
State-led killings	0.050*** (0.009)	−0.028+ (0.015)	0.077*** (0.018)	−0.054+ (0.030)
% Non-paved roads	−0.001 (0.009)	0.013 (0.015)	0.024 (0.034)	0.017 (0.058)
Violence × Non-paved	−0.047*** (0.010)	0.031+ (0.017)	−0.077*** (0.020)	0.061+ (0.033)
Log. Population 1973	0.004 (0.003)	−0.001 (0.005)	−0.000 (0.006)	0.007 (0.010)
% Indigenous 1973	0.047*** (0.007)	−0.016 (0.012)	0.053*** (0.015)	−0.050+ (0.026)
% Literate 1973	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)
Elevation SD	0.014+ (0.008)	−0.021 (0.014)	0.034+ (0.018)	−0.035 (0.030)
Forest cover	0.006 (0.006)	0.002 (0.011)	0.017 (0.018)	−0.009 (0.031)
Log. Dist to capital	0.007** (0.003)	0.002 (0.004)	0.009+ (0.005)	−0.007 (0.009)
Log. Area	0.017 (0.041)	0.014 (0.071)	−0.045 (0.154)	−0.011 (0.258)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,281	491	394
R <sup>2</sup>	0.451	0.815	0.410	0.734
Adjusted R <sup>2</sup>	0.438	0.809	0.387	0.721

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

**Table A11:** Wartime violence (using only CEH), distance to PanAm Hwy, and voting

	URNG	FRG	URNG	FRG
	Most affected departments			
	(1)	(2)	(3)	(4)
(Intercept)	0.012 (0.038)	0.509*** (0.065)	0.071 (0.101)	0.458** (0.170)
State-led killings	0.031*** (0.004)	−0.000 (0.007)	0.030*** (0.006)	0.004 (0.011)
Log. Dist to Pan-Am Hwy	0.001 (0.002)	0.005 (0.003)	0.001 (0.004)	0.007 (0.007)
Violence × Dist to Pan-Am	−0.007*** (0.001)	−0.001 (0.002)	−0.007*** (0.002)	−0.001 (0.003)
Log. Population 1973	0.002 (0.003)	−0.001 (0.005)	−0.007 (0.006)	0.008 (0.010)
% Indigenous 1973	0.045*** (0.007)	−0.014 (0.011)	0.052*** (0.015)	−0.056* (0.026)
% Literate 1973	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)
Elevation SD	0.012 (0.008)	−0.024 <sup>+</sup> (0.014)	0.032 <sup>+</sup> (0.018)	−0.044 (0.031)
Forest cover	0.002 (0.006)	0.001 (0.011)	0.004 (0.018)	0.006 (0.030)
Log. Dist to capital	0.009*** (0.003)	0.004 (0.004)	0.012* (0.005)	−0.007 (0.009)
Log. Area	0.013 (0.041)	0.008 (0.071)	−0.021 (0.153)	−0.027 (0.258)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,281	491	394
R <sup>2</sup>	0.454	0.814	0.413	0.731
Adjusted R <sup>2</sup>	0.442	0.809	0.389	0.718

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.

## F Results aggregating several parties

Table A12 replicates the main results but including as the dependent variable the combined share of several related right-wing parties: FRG (as in main results), *Partido Patriota* (PP), and *Frente de Convergencia Nacional* (FCN). Table A13 shows results for similar models but using a combined share of related left-wing parties: URNG (as in main results) and *Unidad Nacional de la Esperanza* (UNE).

Figure A2 and figure A3 shows the predicted share of right-wing support (FRG + PP + FCN) depending on the number of non-paved roads and the distance to the Pan-American Highway, respectively. Figure A4 and figure A5 do the same but with the predicted left-wing or revolutionary support (URNG + UNE).

Results are similar to the ones in the main text, suggesting that the effect of wartime violence on political preferences corresponds to an ideological shift and is not mainly limited to the main parties analyzed (URNG and FRG).

**Table A12:** Wartime violence, prewar mobilization, and voting for FRG, Partido Patriota, and FCN

	Most affected departments			
	(1)	(2)	(3)	(4)
(Intercept)	0.573*** (0.076)	0.525*** (0.074)	0.958*** (0.196)	0.660*** (0.183)
State-led killings	-0.047** (0.014)	-0.019** (0.007)	-0.109*** (0.030)	-0.013 (0.010)
% Non-paved roads	-0.004 (0.017)		-0.132 <sup>+</sup> (0.070)	
Violence $\times$ Non-paved	0.051** (0.016)		0.121*** (0.033)	
Log. Dist to Pan-Am Hwy		-0.006 (0.004)		0.002 (0.008)
Violence $\times$ Dist to Pan-Am		0.006** (0.002)		0.004 (0.003)
Log. Population 1973	0.000 (0.005)	0.002 (0.005)	-0.000 (0.011)	0.006 (0.012)
% Indigenous 1973	-0.038* (0.016)	-0.038* (0.016)	-0.050 (0.038)	-0.044 (0.038)
% Literate 1973	0.124*** (0.030)	0.129*** (0.030)	0.130 <sup>+</sup> (0.070)	0.151* (0.070)
Elevation SD	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Forest cover	-0.020 (0.015)	-0.019 (0.016)	-0.062 <sup>+</sup> (0.033)	-0.076* (0.034)
Log. Dist to capital	-0.007 (0.012)	0.003 (0.012)	-0.056 <sup>+</sup> (0.034)	-0.031 (0.033)
Log. Area	-0.004 (0.005)	-0.005 (0.005)	-0.007 (0.010)	-0.012 (0.010)
Rebel violence pre-78	0.003 (0.079)	-0.007 (0.079)	0.219 (0.278)	0.223 (0.281)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,601	491	491
R <sup>2</sup>	0.465	0.464	0.450	0.439
Adjusted R <sup>2</sup>	0.453	0.452	0.427	0.415

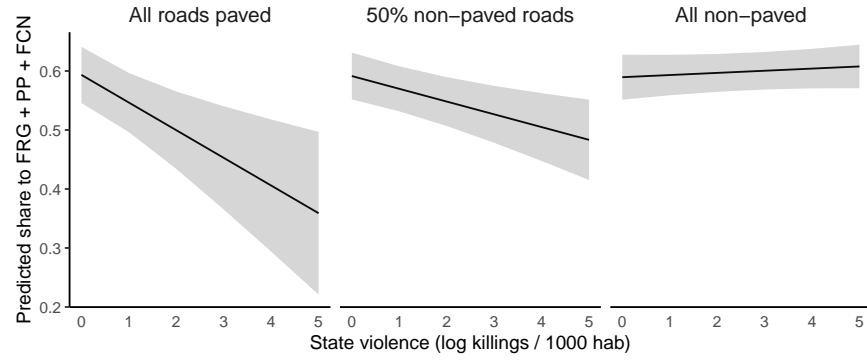
*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.



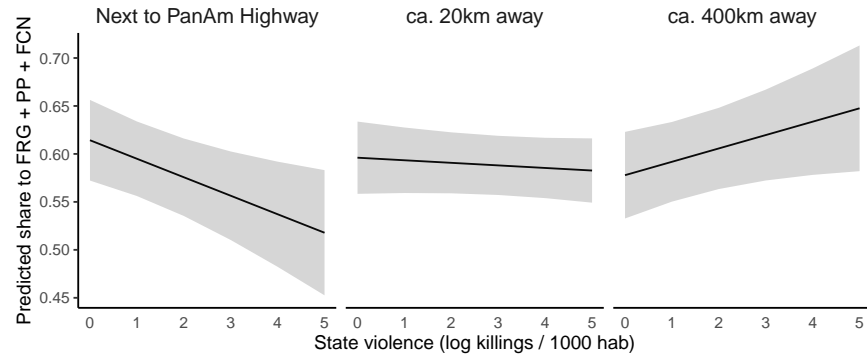
**Table A13:** Wartime violence, prewar mobilization, and voting for URNG and UNE

	Most affected departments			
	(1)	(2)	(3)	(4)
(Intercept)	−0.039 (0.068)	0.028 (0.066)	−0.423* (0.170)	−0.138 (0.158)
State-led killings	0.062*** (0.013)	0.037*** (0.006)	0.112*** (0.026)	0.032*** (0.009)
% Non-paved roads	0.007 (0.016)		0.112+ (0.060)	
Violence × Non-paved	−0.062*** (0.014)		−0.118*** (0.029)	
Log. Dist to Pan-Am Hwy		0.009** (0.003)		0.008 (0.007)
Violence × Dist to Pan-Am		−0.010*** (0.002)		−0.009*** (0.002)
Log. Population 1973	0.002 (0.005)	−0.001 (0.005)	0.013 (0.010)	0.005 (0.010)
% Indigenous 1973	0.033* (0.014)	0.033* (0.014)	0.034 (0.033)	0.019 (0.033)
% Literate 1973	−0.088** (0.027)	−0.091*** (0.027)	−0.069 (0.061)	−0.105+ (0.061)
Elevation SD	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)
Forest cover	−0.001 (0.014)	−0.004 (0.014)	0.006 (0.028)	0.008 (0.029)
Log. Dist to capital	0.016 (0.011)	0.003 (0.011)	0.061* (0.029)	0.035 (0.028)
Log. Area	0.011* (0.005)	0.013** (0.005)	0.008 (0.008)	0.014 (0.009)
Rebel violence pre-78	−0.053 (0.071)	−0.038 (0.071)	−0.191 (0.241)	−0.179 (0.242)
Department FE	Yes	Yes	Yes	Yes
Election FE	Yes	Yes	Yes	Yes
Observations	1,601	1,601	491	491
R <sup>2</sup>	0.586	0.589	0.494	0.490
Adjusted R <sup>2</sup>	0.577	0.579	0.472	0.468

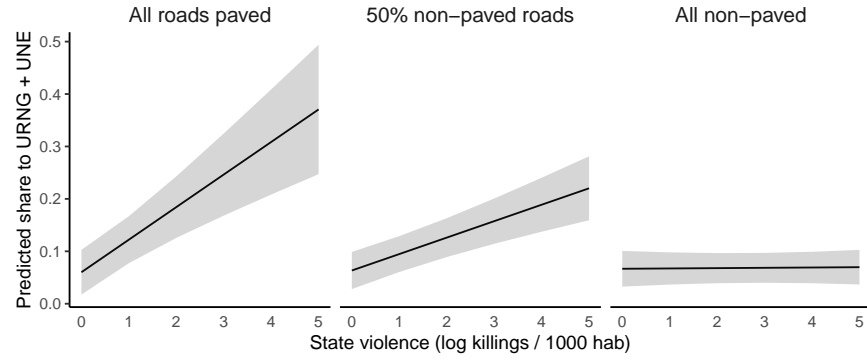
*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All models pool all observations across all elections. Election and department FEs not shown. Most affected departments include Huehuetenango, Chimaltenango, Quiché, Alta Verapaz, Baja Verapaz, and Petén.



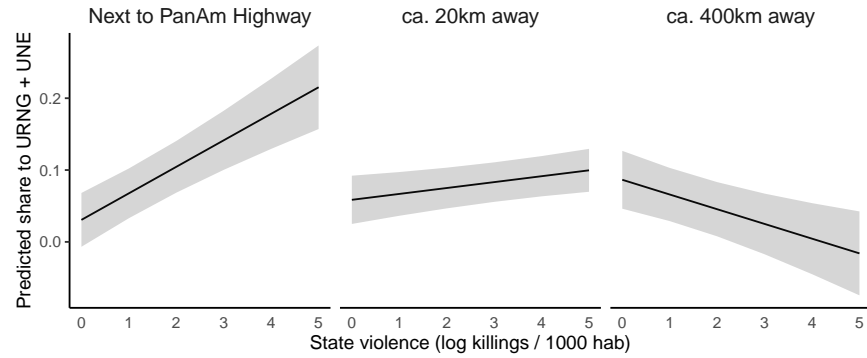
**Figure A2:** Wartime state violence and FRG + PP + FCN share depending on prewar political mobilization (proxied by % non-paved roads), calculated for a municipality in Quiché, in 1999 elections, keeping all other variables at their mean, using Model 1 in Table A12



**Figure A3:** Wartime state violence and FRG + PP + FCN share depending on prewar political mobilization (proxied by distance to Pan-American Highway), calculated for a municipality in Quiché, in 1999 elections, keeping all other variables at their mean, using Model 2 in Table A12



**Figure A4:** Wartime state violence and URNG + UNE share depending on prewar political mobilization (proxied by % non-paved roads), calculated for a municipality in Quiché, in 1999 elections, keeping all other variables at their mean, using Model 1 in Table A13.



**Figure A5:** Wartime state violence and URNG + UNE share depending on prewar political mobilization (proxied by distance to Pan-American Highway), calculated for a municipality in Quiché, in 1999 elections, keeping all other variables at their mean, using Model 2 in Table A13

## G Results of cross-sectional models by election

Table [A14](#) shows results for the base models (without interactions) on URNG vote using a cross-section of each election. Tables [A15](#) and [A16](#) include the interaction with the share of non-paved roads and distance to the Pan-American Highway, respectively. Table [A17](#) shows these same base models for the FRG vote, while tables [A18](#) and [A19](#) include the interaction with the share of non-paved roads and distance to the Highway, respectively. All these cross-sectional models include as well turnout as a control variable (except in 2007, for which no data is available).

Results can be clearly seen in the predicted shares plots. Figure [A6](#) shows the predicted share of URNG votes in each election depending on state violence and the share of non-paved roads. Figure [A7](#) uses distance to the Pan-American Highway as the interaction variable. Figure [A8](#) and figure [A9](#) repeat these same graphs, respectively, but using FRG vote share as the predicted value.

**Table A14:** Wartime violence and URNG share, by year (base models)

	1999	2003	2007	2011	2015
	(1)	(2)	(3)	(4)	(5)
(Intercept)	−0.072 (0.136)	0.077 (0.076)	−0.085 (0.062)	−0.092 (0.090)	−0.020 (0.054)
State-led killings	0.022*** (0.006)	0.000 (0.003)	0.003 (0.003)	0.002 (0.003)	0.002 (0.002)
Turnout	−0.061 (0.056)	−0.057 (0.035)		−0.033 (0.052)	−0.028 (0.027)
Log. Population 1973	0.012 (0.009)	−0.003 (0.005)	0.005 (0.004)	0.002 (0.005)	−0.000 (0.003)
% Indigenous 1973	0.084** (0.027)	0.014 (0.015)	0.019 (0.013)	0.044** (0.015)	0.024* (0.010)
% Literate 1973	−0.045 (0.050)	−0.029 (0.029)	−0.024 (0.025)	−0.045 (0.029)	−0.010 (0.019)
Elevation SD	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)
Forest cover	0.029 (0.026)	0.022 (0.015)	0.007 (0.013)	0.018 (0.015)	0.005 (0.010)
Log. Dist to capital	0.008 (0.019)	−0.006 (0.010)	0.002 (0.010)	0.009 (0.011)	0.001 (0.007)
Log. Area	0.008 (0.008)	0.006 (0.005)	0.004 (0.004)	0.006 (0.005)	0.008* (0.003)
Rebel violence pre-78	−0.008 (0.132)	0.014 (0.072)	0.018 (0.067)	0.013 (0.077)	0.015 (0.049)
Department FE	Yes	Yes	Yes	Yes	Yes
Observations	325	261	323	320	315
R <sup>2</sup>	0.444	0.263	0.232	0.365	0.280
Adjusted R <sup>2</sup>	0.385	0.167	0.153	0.297	0.201

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Each model includes cross-sectional data on a specific election. Department FE not shown.

**Table A15:** Wartime violence and URNG share, by year (interaction, roads)

	1999	2003	2007	2011	2015
	(1)	(2)	(3)	(4)	(5)
(Intercept)	−0.185 (0.134)	0.061 (0.078)	−0.114 <sup>+</sup> (0.062)	−0.140 (0.091)	−0.039 (0.055)
State-led killings	0.115*** (0.023)	0.007 (0.013)	0.021 <sup>+</sup> (0.012)	0.030* (0.014)	0.017 <sup>+</sup> (0.009)
% Non-paved roads	0.013 (0.028)	0.003 (0.016)	0.008 (0.015)	−0.002 (0.017)	−0.007 (0.011)
Violence × Non-paved	−0.107*** (0.026)	−0.007 (0.015)	−0.021 (0.013)	−0.032* (0.015)	−0.018 <sup>+</sup> (0.010)
Turnout	−0.039 (0.054)	−0.059 <sup>+</sup> (0.036)		−0.025 (0.052)	−0.020 (0.027)
Log. Population 1973	0.013 (0.009)	−0.004 (0.005)	0.004 (0.004)	0.001 (0.005)	−0.001 (0.003)
% Indigenous 1973	0.096*** (0.021)	0.022 <sup>+</sup> (0.012)	0.026* (0.011)	0.058*** (0.013)	0.028*** (0.008)
% Literate 1973	−0.000 (0.000)	−0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)
Elevation SD	0.024 (0.025)	0.023 (0.015)	0.007 (0.013)	0.018 (0.015)	0.005 (0.010)
Forest cover	0.018 (0.019)	−0.006 (0.010)	0.004 (0.010)	0.013 (0.011)	0.004 (0.007)
Log. Dist to capital	0.010 (0.008)	0.007 (0.005)	0.004 (0.004)	0.008 <sup>+</sup> (0.005)	0.009** (0.003)
Log. Area	−0.020 (0.129)	0.008 (0.072)	0.014 (0.066)	0.005 (0.076)	0.011 (0.049)
Department FE	Yes	Yes	Yes	Yes	Yes
Observations	325	261	323	320	315
R <sup>2</sup>	0.474	0.261	0.236	0.370	0.292
Adjusted R <sup>2</sup>	0.417	0.161	0.155	0.300	0.211

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Each model includes cross-sectional data on a specific election. Department FE not shown.

**Table A16:** Wartime violence and URNG share, by year (interaction, PanAm)

	1999	2003	2007	2011	2015
	(1)	(2)	(3)	(4)	(5)
(Intercept)	−0.044 (0.131)	0.070 (0.076)	−0.089 (0.061)	−0.101 (0.089)	−0.022 (0.053)
State-led killings	0.063*** (0.011)	0.002 (0.007)	0.012* (0.006)	0.017* (0.007)	0.008+ (0.004)
Log. Dist to Pan-Am Hwy	0.000 (0.006)	0.001 (0.004)	0.002 (0.003)	0.001 (0.004)	0.002 (0.002)
Violence × Dist to Pan-Am	−0.013*** (0.003)	−0.001 (0.002)	−0.003 (0.002)	−0.005* (0.002)	−0.002+ (0.001)
Turnout	−0.069 (0.054)	−0.061+ (0.035)		−0.031 (0.053)	−0.025 (0.027)
Log. Population 1973	0.005 (0.009)	−0.004 (0.005)	0.003 (0.004)	−0.001 (0.005)	−0.001 (0.003)
% Indigenous 1973	0.098*** (0.021)	0.022+ (0.012)	0.027* (0.011)	0.058*** (0.013)	0.027*** (0.008)
% Literate 1973	−0.000 (0.000)	−0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)
Elevation SD	0.027 (0.025)	0.023 (0.015)	0.007 (0.013)	0.018 (0.015)	0.004 (0.010)
Forest cover	0.010 (0.020)	−0.007 (0.011)	0.001 (0.010)	0.009 (0.012)	−0.000 (0.008)
Log. Dist to capital	0.015+ (0.008)	0.007 (0.005)	0.006 (0.004)	0.009* (0.005)	0.009** (0.003)
Log. Area	0.009 (0.129)	0.010 (0.072)	0.018 (0.066)	0.014 (0.076)	0.016 (0.049)
Department FE	Yes	Yes	Yes	Yes	Yes
Observations	325	261	323	320	315
R <sup>2</sup>	0.476	0.260	0.237	0.374	0.287
Adjusted R <sup>2</sup>	0.419	0.160	0.155	0.304	0.206

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Each model includes cross-sectional data on a specific election. Department FE not shown.

**Table A17:** Wartime violence and FRG share, by year (base models)

	1999	2003	2007	2015
	(1)	(2)	(3)	(4)
(Intercept)	0.516** (0.176)	0.362* (0.164)	0.143 (0.102)	0.030+ (0.017)
State-led killings	-0.010 (0.008)	-0.000 (0.007)	0.002 (0.005)	0.001 (0.001)
Turnout	-0.129+ (0.073)	0.073 (0.077)		-0.028** (0.008)
Log. Population 1973	0.005 (0.011)	-0.019+ (0.010)	0.001 (0.007)	-0.001 (0.001)
% Indigenous 1973	-0.035 (0.035)	-0.011 (0.032)	0.006 (0.022)	0.004 (0.003)
% Literate 1973	0.206** (0.065)	-0.179** (0.062)	-0.026 (0.041)	0.006 (0.006)
Elevation SD	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
Forest cover	-0.038 (0.033)	-0.052 (0.033)	-0.022 (0.021)	-0.001 (0.003)
Log. Dist to capital	0.024 (0.025)	0.008 (0.022)	-0.007 (0.016)	-0.001 (0.002)
Log. Area	-0.005 (0.011)	0.006 (0.010)	0.009 (0.007)	0.000 (0.001)
Rebel violence pre-78	0.034 (0.172)	0.087 (0.156)	-0.031 (0.109)	-0.004 (0.015)
Department FE	Yes	Yes	Yes	Yes
Observations	325	261	323	315
R <sup>2</sup>	0.319	0.393	0.388	0.201
Adjusted R <sup>2</sup>	0.247	0.314	0.325	0.114

*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Each model includes cross-sectional data on a specific election. Department FE not shown.



**Table A18:** Wartime violence and FRG share, by year (interaction, roads)

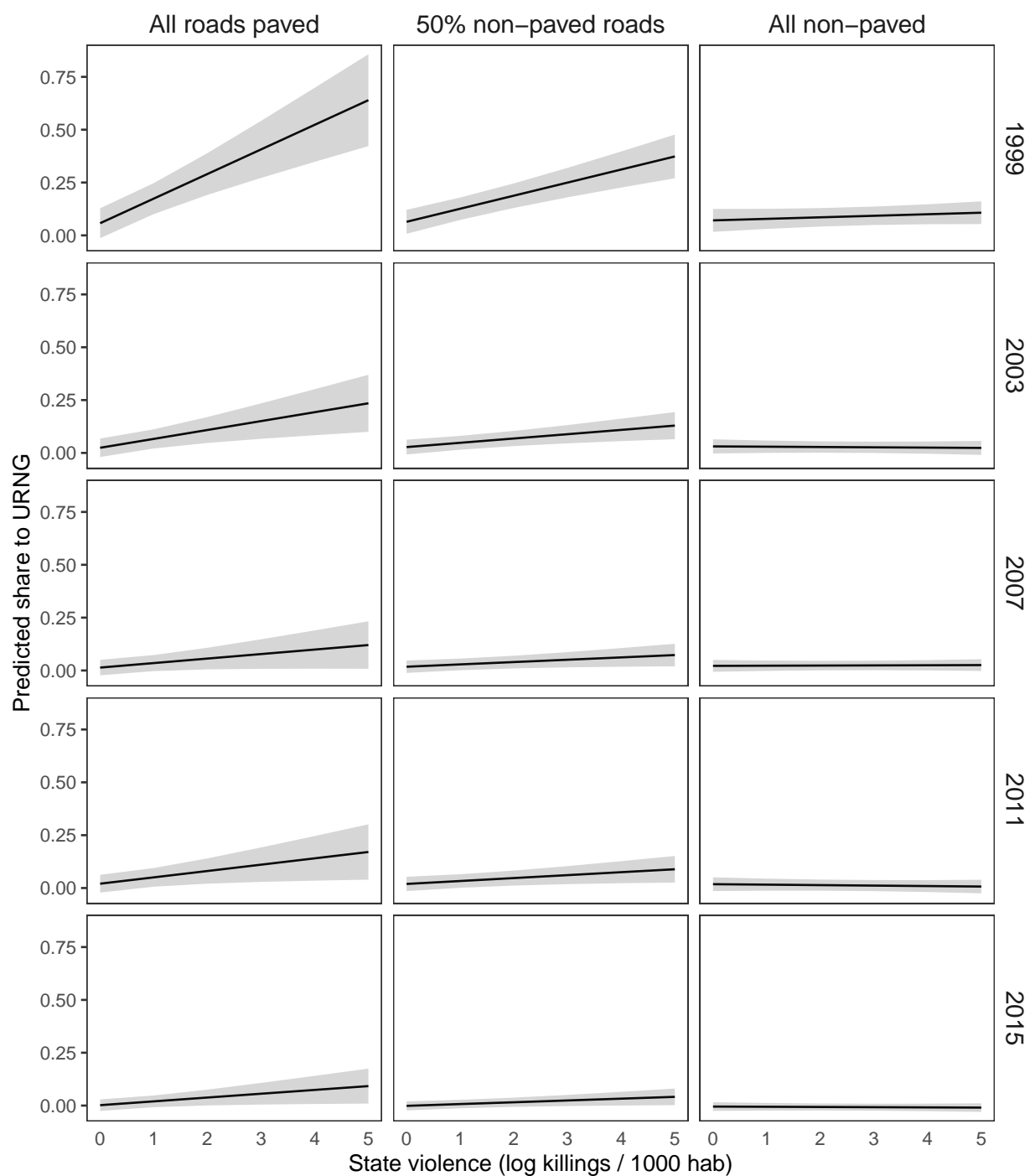
	1999	2003	2007	2015
	(1)	(2)	(3)	(4)
(Intercept)	0.684*** (0.179)	0.263 (0.171)	0.147 (0.101)	0.037* (0.017)
State-led killings	-0.103*** (0.031)	0.015 (0.029)	-0.026 (0.019)	0.000 (0.003)
% Non-paved roads	-0.015 (0.037)	0.058 (0.036)	0.004 (0.024)	-0.006 <sup>+</sup> (0.003)
Violence $\times$ Non-paved	0.107** (0.034)	-0.016 (0.032)	0.033 (0.022)	0.000 (0.003)
Turnout	-0.124 <sup>+</sup> (0.073)	0.043 (0.078)		-0.027** (0.009)
Log. Population 1973	0.010 (0.012)	-0.020 <sup>+</sup> (0.011)	0.000 (0.007)	-0.001 (0.001)
% Indigenous 1973	-0.098*** (0.028)	0.038 (0.027)	0.014 (0.018)	0.003 (0.003)
% Literate 1973	-0.000 <sup>+</sup> (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
Elevation SD	-0.038 (0.033)	-0.044 (0.033)	-0.019 (0.021)	-0.001 (0.003)
Forest cover	0.013 (0.026)	0.003 (0.023)	-0.011 (0.016)	-0.001 (0.002)
Log. Dist to capital	-0.013 (0.011)	0.009 (0.010)	0.009 (0.007)	0.000 (0.001)
Log. Area	0.068 (0.172)	0.055 (0.157)	-0.031 (0.109)	-0.004 (0.015)
Department FE	Yes	Yes	Yes	Yes
Observations	325	261	323	315
R <sup>2</sup>	0.319	0.378	0.393	0.208
Adjusted R <sup>2</sup>	0.245	0.294	0.328	0.118

*Note:*  $+p < 0.1$ ;  $*p < 0.05$ ;  $**p < 0.01$ ;  $***p < 0.001$ . Each model includes cross-sectional data on a specific election. Department FE not shown.

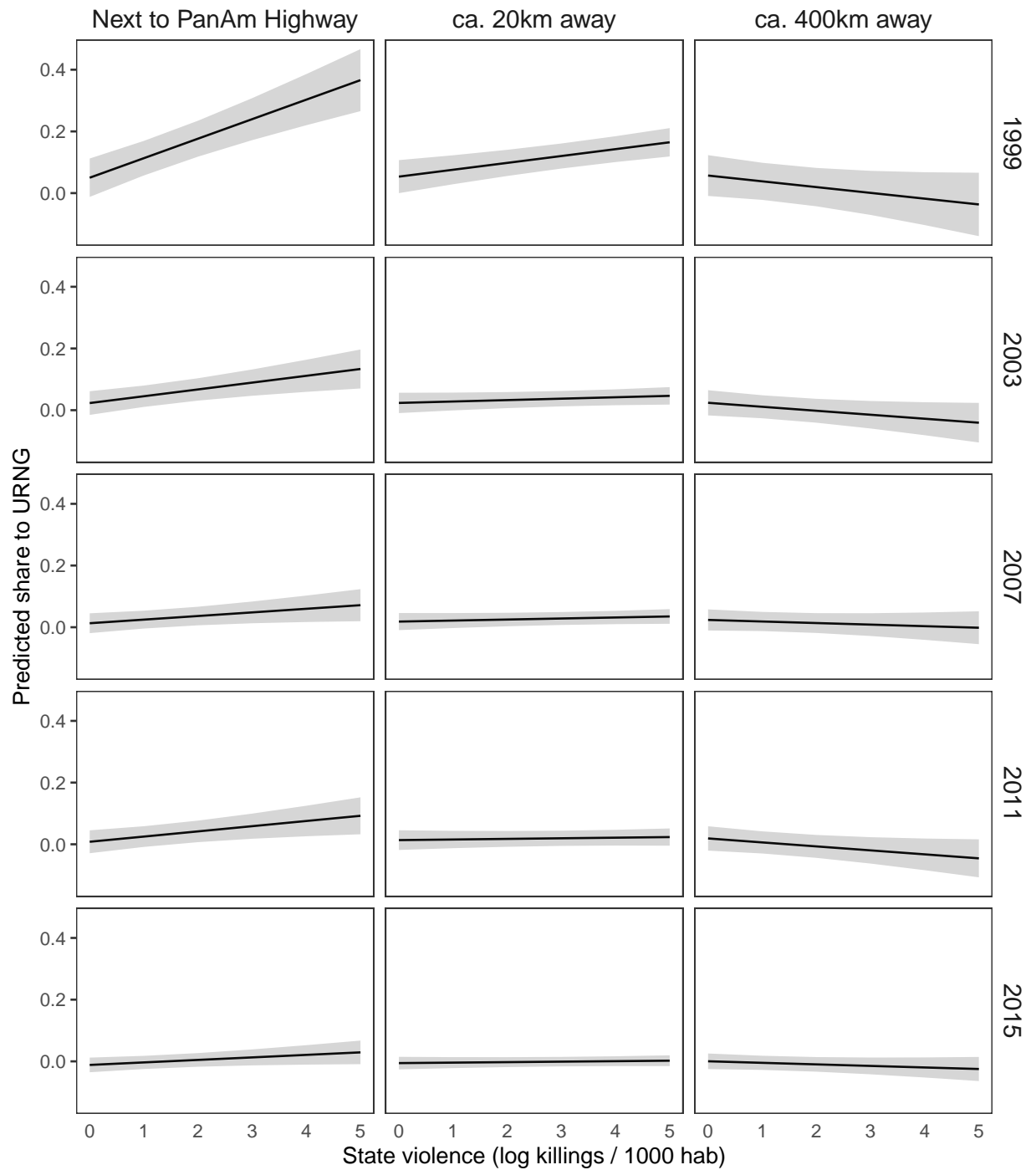
**Table A19:** Wartime violence and FRG share, by year (interaction, PanAm)

	1999	2003	2007	2015
	(1)	(2)	(3)	(4)
(Intercept)	0.567** (0.177)	0.308 <sup>+</sup> (0.165)	0.131 (0.100)	0.034* (0.017)
State-led killings	-0.038* (0.015)	0.015 (0.015)	0.005 (0.010)	0.003* (0.001)
Log. Dist to Pan-Am Hwy	-0.007 (0.008)	0.017* (0.008)	0.006 (0.005)	-0.001 (0.001)
Violence $\times$ Dist to Pan-Am	0.009* (0.004)	-0.005 (0.004)	-0.001 (0.003)	-0.001 (0.000)
Turnout	-0.103 (0.073)	0.054 (0.077)		-0.027** (0.008)
Log. Population 1973	0.015 (0.012)	-0.024* (0.010)	0.001 (0.007)	-0.001 (0.001)
% Indigenous 1973	-0.101*** (0.028)	0.040 (0.027)	0.015 (0.018)	0.002 (0.002)
% Literate 1973	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 <sup>+</sup> (0.000)
Elevation SD	-0.040 (0.034)	-0.050 (0.033)	-0.024 (0.021)	-0.001 (0.003)
Forest cover	0.029 (0.027)	-0.008 (0.024)	-0.013 (0.017)	0.000 (0.002)
Log. Dist to capital	-0.016 (0.011)	0.014 (0.010)	0.010 (0.007)	0.000 (0.001)
Log. Area	0.050 (0.174)	0.066 (0.157)	-0.036 (0.109)	-0.001 (0.015)
Department FE	Yes	Yes	Yes	Yes
Observations	325	261	323	315
R <sup>2</sup>	0.306	0.383	0.390	0.217
Adjusted R <sup>2</sup>	0.230	0.300	0.325	0.128

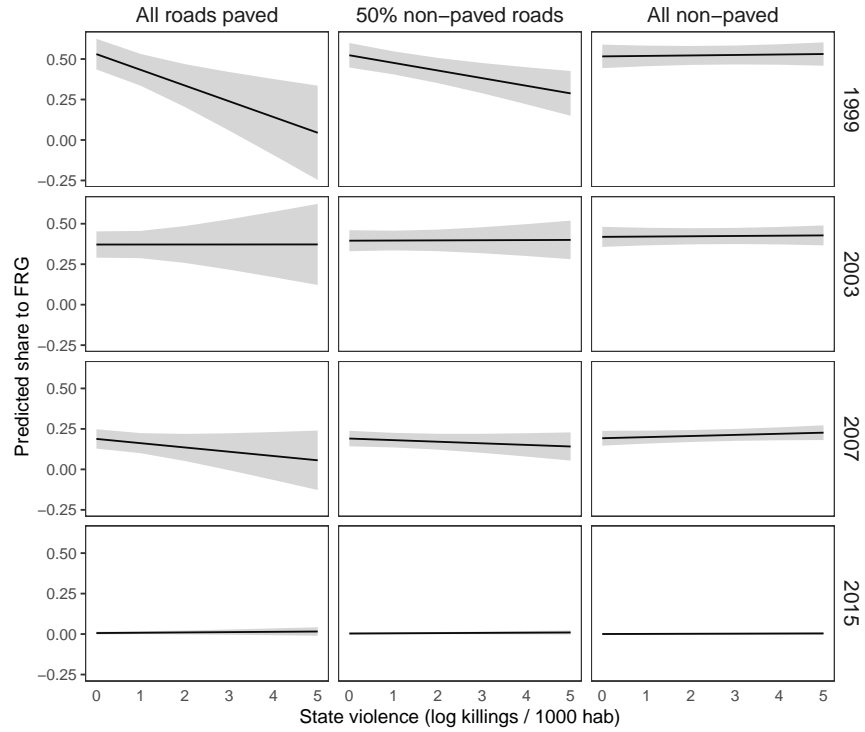
*Note:* + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Each model includes cross-sectional data on a specific election. Department FE not shown.



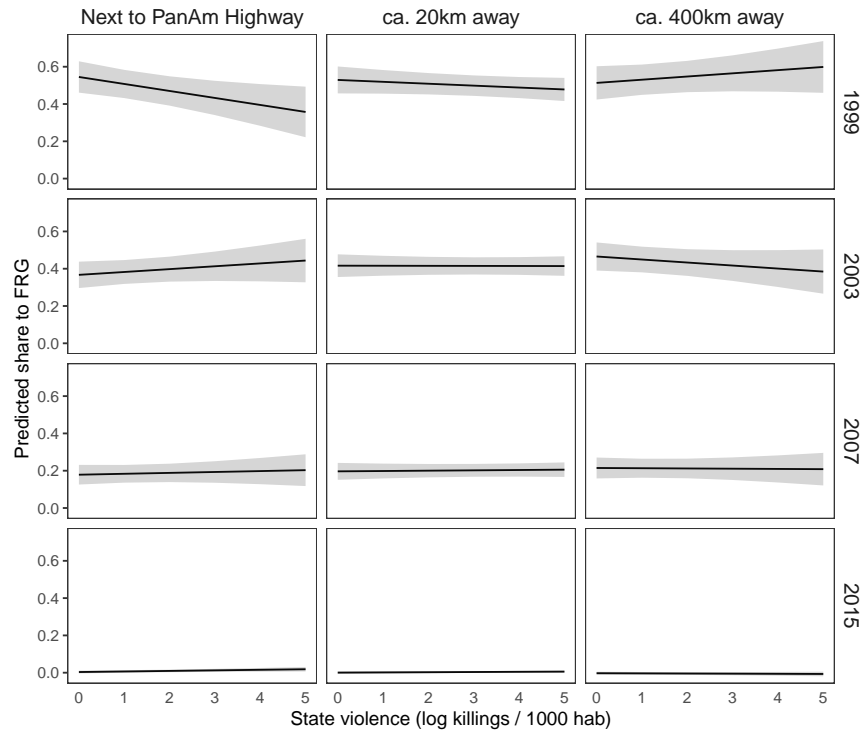
**Figure A6:** Wartime state violence and URNG share depending on prewar political mobilization (proxied by % non-paved roads)



**Figure A7:** Wartime state violence and URNG share depending on prewar political mobilization (proxied by distance to Pan-American Highway)



**Figure A8:** Wartime state violence and FRG share depending on prewar political mobilization (proxied by % non-paved roads)



**Figure A9:** Wartime state violence and FRG share depending on prewar political mobilization (proxied by distance to Pan-American Highway)