

# **Online Quantitative Appendices**

## Appendix A: Summary and Descriptive Statistics

Table A.1: **Summary Statistics: Cross-Sectional Data**

	Mean	Median	Min	Max	SD	Obs.
<b>All Groups (Territorial Control)</b>						
Revolutionary Goals	0.65	1.00	0.00	1.00	0.48	108
Rebel Strength	1.16	1.00	0.00	4.00	0.81	108
Competition	2.95	2.00	1.00	12.00	2.28	108
Infant Mortality	88.96	90.95	8.20	254.30	50.41	72
GDP per capita	7.20	6.97	5.33	9.88	1.06	72
Population Density	3.59	3.63	0.92	5.74	1.14	82
Rugged Terrain	2.55	2.63	0.00	4.31	1.25	107
<b>Revolutionary (Territorial Control)</b>						
Rebel Strength	1.07	1.00	0.00	3.00	0.67	70
Competition	2.90	2.00	1.00	12.00	2.57	70
Infant Mortality	80.53	76.10	8.20	254.30	54.69	42
GDP per capita	7.48	7.27	5.80	9.88	1.07	41
Population Density	3.75	3.68	0.92	5.74	1.17	48
Rugged Terrain	2.73	3.01	0.00	4.31	1.19	69
<b>Non-Revolutionary (Territorial Control)</b>						
Rebel Strength	1.32	1.00	0.00	4.00	1.02	38
Competition	3.05	3.00	1.00	7.00	1.64	38
Infant Mortality	100.77	110.70	13.50	171.50	41.77	30
GDP per capita	6.85	6.72	5.33	9.12	0.93	31
Population Density	3.37	3.30	0.97	5.55	1.07	34
Rugged Terrain	2.23	2.25	0.34	4.20	1.30	38

Table A.2: Summary of Controls and Coding

Variables	Original Variable	Operationalization
Extensiveness of Governance	Level of education, (0-2 range), Level of health (0-2 range) (Stewart 2018)	Summed Education, Health (0 to 4 range) 0=No Services 4=Most Extensive Services
Revolutionary Goals	“Conflict Type” variable (Cunningham et al. 2009) for independence groups; “Marxist Rebels” (Kalyvas and Balcells 2010) and data from NSA Case Notes for communist groups; “Islamist” (Gleditsch and Rudolfson 2016) for Islamist groups	1=Revolutionary Goals if “Conflict Type” contains term “Secessionist” or “Anti-Colonial”; listed as Communist in Kalyvas and Balcells (2010) or described as “Maoist,” “socialist,” “communist” or “Marxist” in NSA Case Notes; listed as “Islamist in” Gleditsch and Rudolfson (2016)  0=Non-Revolutionary Goals (all other rebel groups)
Competition	Number of rebel groups operating simultaneously in a country (Cunningham et al. 2009)	Rebel groups (count)
Rebel Strength	“Much Stronger” “Weaker” “Parity” “Stronger” “Much Stronger” (Cunningham et al. 2009)	0=Much Weaker 1=Weaker 2=Parity 3=Stronger 4=Much Stronger
Infant Mortality	Infant Mortality Rate (World Bank 2012)	Infant Mortality Rate
GDP per capita	GDP per capita (Heston et al. 2012)	Log of GDP per capita
Population Density	Population Density (World Bank 2012)	Natural log of Population Density
Rugged Terrain	Log of Mountainous Terrain (Fearon and Laitin 2003)	Log of Mountainous Terrain
Territorial Control	“Yes” or “No” (Cunningham et al. 2009)	1=Territorial control 0=No territorial control

## Appendix B: Robustness Checks

Table B.1: **Fixed Effects**

	(1)	(2)	(3)
Revolutionary Goals	1.11** (0.54)	0.93+ (0.56)	0.78 (0.75)
Rebel Strength	-0.15 (0.25)	-0.32 (0.28)	0.19 (0.37)
Competition	0.19* (0.11)	0.17 (0.12)	0.19 (0.28)
Infant Mortality	0.01 (0.01)	0.02+ (0.01)	0.05+ (0.03)
GDPpc	0.71** (0.26)	0.79** (0.30)	1.49* (0.77)
Population Density	-0.04 (0.31)	0.04 (0.34)	3.07 (2.34)
Rugged Terrain	0.35** (0.15)	0.34 (0.24)	
Constant	-5.69** (2.56)	-7.74** (3.15)	-27.44+ (15.56)
Region Fixed Effects	Yes	Yes	No
Decade Fixed Effects	No	Yes	No
Country Fixed Effects	No	No	Yes
Observations	54	54	55
$R^2$	0.390	0.417	0.938

*Note:* The unit of analysis for all models in Table B.1 is insurgency. The dependent variable for all models in Table B.1 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table B.2: **Additional Controls**

	(1)	(2)	(3)	(4)	(5)	(6)
Revolutionary Goals	1.03*	0.77 <sup>+</sup>	0.87	0.84 <sup>+</sup>	1.04	1.00 <sup>+</sup>
	(0.52)	(0.52)	(0.59)	(0.56)	(0.77)	(0.59)
Rebel Strength	-0.08	-0.33	-0.04	-0.29	-0.41	0.16
	(0.24)	(0.27)	(0.25)	(0.24)	(0.38)	(0.20)
Competition	0.18	0.25*	0.23*	0.12	0.25 <sup>+</sup>	0.23 <sup>+</sup>
	(0.13)	(0.14)	(0.13)	(0.12)	(0.15)	(0.14)
Infant Mortality	0.01	0.01*	0.01 <sup>+</sup>	0.02**	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc	0.52**	0.81***	0.69***	0.75***	0.61**	0.55*
	(0.23)	(0.24)	(0.22)	(0.22)	(0.25)	(0.28)
Population Density	-0.03	-0.09	0.02	0.10	-0.17	-0.04
	(0.30)	(0.31)	(0.29)	(0.28)	(0.35)	(0.31)
Rugged Terrain	0.25	0.11	0.35*	0.43**	0.25	0.27
	(0.18)	(0.19)	(0.19)	(0.17)	(0.26)	(0.20)
Duration	0.02					
	(0.03)					
Group Size		0.45**				
		(0.21)				
Intensity			0.14 <sup>+</sup>			
			(0.09)			
Non-Military Support				0.78*		
				(0.41)		
Resource Rents					-0.08	
					(0.11)	
Rebel Strength Categories						Yes
Constant	-4.23*	-9.73***	-6.86**	-6.94***	-2.78	-4.67 <sup>+</sup>
	(2.44)	(3.14)	(2.54)	(2.47)	(3.77)	(3.16)
Observations	54	49	51	48	37	54
$R^2$	0.381	0.437	0.409	0.423	0.426	0.394

*Note:* The unit of analysis for all models in Table B.2 is insurgency. The dependent variable for all models in Table B.2 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table B.3: **Outliers Omitted**

	(1)
Revolutionary Goals	1.38** (0.59)
Rebel Strength	-0.15 (0.27)
Competition	0.16 (0.12)
Infant Mortality	0.01* (0.01)
GDPpc	0.47** (0.23)
Population Density	-0.03 (0.30)
Rugged Terrain	0.30* (0.17)
Constant	-4.11* (2.41)
Observations	52
$R^2$	0.421

*Note:* The unit of analysis in Table B.3 is insurgency. The dependent variable in Table B.3 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table B.4: **Jackknifing**

	1
Revolutionary Goals	1.08* (0.58)
Rebel Strength	-0.10 (0.28)
Competition	0.21 (0.14)
Infant Mortality	0.01 (0.01)
GDPpc	0.55** (0.26)
Population Density	-0.07 (0.33)
Rugged Terrain	0.29+ (0.19)
Constant	-4.39+ (2.79)
Observations	54
$R^2$	0.371

*Note:* The unit of analysis in Table B.4 is insurgency. The dependent variable in Table B.4 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table B.5: **Alternative Estimator**

	(1)
Revolutionary Goals	1.76** (0.73)
Rebel Strength	-0.09 (0.32)
Competition	0.43* (0.25)
Infant Mortality	0.02* (0.01)
GDPpc	0.64** (0.30)
Population Density	-0.01 (0.47)
Rugged Terrain	0.35 (0.27)
/	
cut1	8.12** (3.45)
cut2	8.46** (3.51)
cut3	9.36*** (3.60)
cut4	9.48*** (3.63)
Observations	54
Pseudo $R^2$	0.186

*Note:* The unit of analysis in Table B.5 is insurgency. The dependent variable in Table B.5 is the extensiveness of rebel governance institutions, which varies from 0 to +4. Ordered logistic regression is used and logistic coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table B.6: **Alternative Dependent Variable**

	(1)	(2)	(3)	(4)
	Binary (High)	Binary (Low)	Education	Health
Revolutionary Goals	1.71** (0.70)	1.45** (0.69)	0.78*** (0.27)	0.45+ (0.30)
Rebel Strength	-0.18 (0.44)	-0.27 (0.42)	0.08 (0.13)	-0.12 (0.13)
Competition	0.51** (0.23)	0.56** (0.27)	0.12* (0.06)	0.08 (0.07)
Infant Mortality	0.02 (0.01)	0.02 (0.01)	0.00 (0.00)	0.01+ (0.00)
GDPpc	0.66 (0.47)	0.65+ (0.45)	0.16 (0.14)	0.34*** (0.11)
Population Density	-0.18 (0.39)	-0.11 (0.40)	-0.02 (0.15)	-0.08 (0.15)
Rugged Terrain	0.52+ (0.36)	0.54+ (0.35)	0.06 (0.10)	0.20** (0.09)
Constant	-9.14* (5.03)	-9.27* (4.91)	-1.37 (1.44)	-2.42* (1.20)
Observations	54	54	58	54
Pseudo $R^2$	0.320	0.309		
$R^2$			0.312	0.372

*Note:* The unit of analysis in Table B.6 is insurgency. In Model 1, the dependent variable is a binary indicator of whether a rebel group provided the most extensive governance (a score of +4), and in Model 2, the dependent variable is a binary indicator of whether the rebel group provided more extensive governance (a score of +3 or +4). In Model 3, the dependent variable is a trichotomous measure (ranging from 0 to +2) of the extensiveness of rebel education. In Model 4, the dependent variable is a trichotomous measure (ranging from 0 to +2) of the extensiveness of rebel health care. In Models 1 and 2, logistic regression is used and logistic coefficients are reported. In Models 3 and 4 OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table B.7: **Bias through Missingness**

	(1) No Missingness	(2) Large Groups	(3) Post-1970s Groups
Revolutionary Goals	0.95** (0.47)	1.08 <sup>+</sup> (0.66)	0.90 <sup>+</sup> (0.56)
Rebel Strength	-0.22 (0.25)	-0.18 (0.33)	-0.28 (0.25)
Competition	0.18 <sup>+</sup> (0.12)	0.14 (0.19)	0.21 <sup>+</sup> (0.13)
Infant Mortality	0.02*** (0.01)	0.01 (0.01)	0.01 (0.01)
GDPpc	0.66*** (0.22)	0.60* (0.31)	0.56** (0.21)
Population Density	0.06 (0.25)	-0.19 (0.37)	-0.10 (0.32)
Rugged Terrain	0.32* (0.16)	0.27 (0.29)	0.39** (0.17)
Constant	-6.34*** (2.16)	-3.57 (2.71)	-4.04 <sup>+</sup> (2.49)
Observations	63	38	49
$R^2$	0.358	0.283	0.419

*Note:* The unit of analysis for all models in Table B.7 is insurgency. The dependent variable for all models in Table B.7 is the extensiveness of rebel governance institutions, which varies from 0 to +4. To account for bias due to missingness, in Model 1, I replace all missing values for extensiveness of governance institutions with a 0, indicating no governance. In Model 2, I assume that larger rebel groups will have more information about them, so I limit the sample to all rebel groups that are above average (mean) in size, based on the variable *Rebel Group Size*. Finally, in Model 3, I assume that more contemporary rebel groups will have more information about them, and re-analyze the data using all rebel groups that operated after 1970. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table B.8: **Bootstrapping**

	(1)
Revolutionary Goals	1.08* (0.64)
Rebel Strength	-0.10 (0.35)
Competition	0.21 (0.18)
Infant Mortality	0.01 (0.01)
GDPpc	0.55 (0.41)
Population Density	-0.07 (0.36)
Rugged Terrain	0.29 (0.26)
Constant	-4.39 (4.12)
Observations	54
$R^2$	0.371

*Note:* The unit of analysis in Table B.8 is insurgency. The dependent variable in Table B.8 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## Appendix C: Panel Data Analysis

Table C.1: Summary Statistics: Panel Data

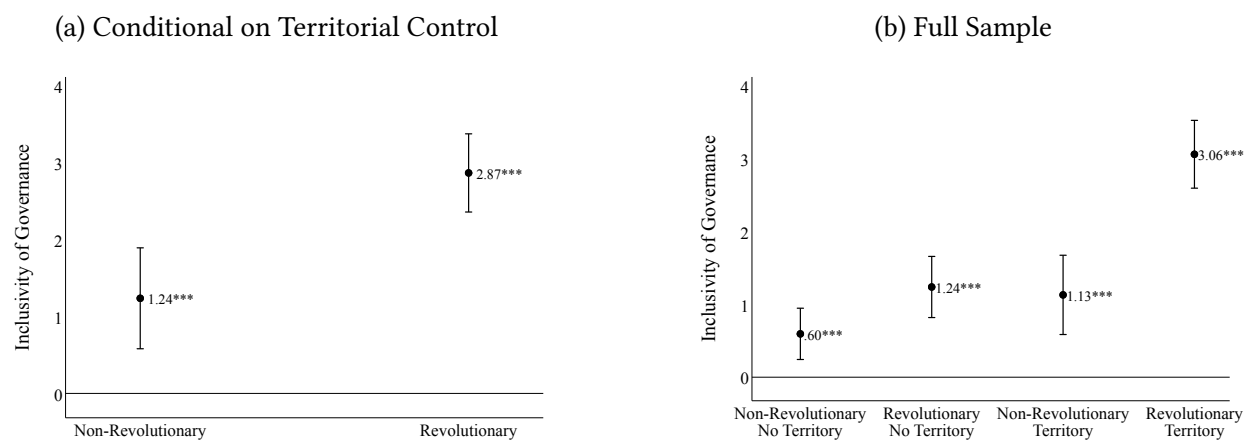
	Mean	Median	Min	Max	SD	Obs.
<b>All Groups (Territorial Control)</b>						
Revolutionary Goals	0.71	1.00	0.00	1.00	0.46	964
Rebel Strength	0.89	1.00	0.00	4.00	0.76	964
Competition	3.11	2.00	1.00	12.00	2.21	964
Infant Mortality	84.31	81.00	5.20	259.20	45.51	757
Population Density	3.65	3.62	0.88	5.89	1.08	837
GDP per capita	7.33	7.25	5.12	10.05	1.11	643
Rugged Terrain	2.86	3.13	0.00	4.31	1.13	963
<b>Revolutionary (Territorial Control)</b>						
Rebel Strength	0.78	1.00	0.00	3.00	0.61	681
Competition	3.31	2.00	1.00	12.00	2.34	681
Infant Mortality	78.55	74.00	5.20	259.20	45.79	507
Population Density	3.82	3.71	0.88	5.89	1.03	574
GDP per capita	7.46	7.56	5.49	10.05	1.11	421
Rugged Terrain	3.06	3.60	0.00	4.31	1.10	680
<b>Non-Revolutionary (Territorial Control)</b>						
Rebel Strength	1.13	1.00	0.00	4.00	0.98	283
Competition	2.64	2.00	1.00	7.00	1.78	283
Infant Mortality	95.98	102.75	5.20	172.10	42.71	250
Population Density	3.28	3.29	0.95	5.72	1.09	263
GDP per capita	7.09	6.86	5.12	10.05	1.07	222
Rugged Terrain	2.37	2.25	0.34	4.20	1.05	283

Table C.2: **Revolutionary Goals Predict More Extensive Governance, Panel Data**

	(1)	(2)	(3)	(4)	(5)
Revolutionary Goals	1.31*** (0.14)	1.23*** (0.39)	1.70*** (0.36)	1.63*** (0.44)	0.64** (0.29)
Revolutionary Goals × Territorial Control					1.29** (0.52)
Territorial Control					0.54 (0.39)
Rebel Strength		-0.05 (0.23)		0.07 (0.24)	0.30* (0.16)
Competition		0.11 (0.09)		0.17** (0.08)	0.08** (0.04)
Infant Mortality			0.01 (0.01)	0.00 (0.01)	0.01* (0.00)
Population Density			-0.14 (0.23)	-0.26 (0.24)	-0.08 (0.11)
GDP per capita			0.34 (0.31)	0.35 (0.29)	0.17 (0.17)
Rugged Terrain			0.27* (0.13)	0.20 (0.14)	0.07 (0.13)
Constant	1.30*** (0.11)	1.07 <sup>+</sup> (0.65)	-1.79 (3.40)	-1.56 (3.26)	-1.55 (1.70)
Observations	731	731	449	449	1234
$R^2$	0.112	0.134	0.294	0.324	0.317

*Note:* The unit of analysis for all models in Table C.2 is insurgency-year. The dependent variable for all models in Table C.2 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* and *Revolutionary Goals × Territorial Control*, supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. <sup>+</sup>  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Figure C.1: Predicted Effect of Revolutionary Goals on Extensiveness of Governance, Panel Results**



*Note:* Figure C.1a presents the predicted effect on the extensiveness of rebel governance when rebels espouse revolutionary goals, conditional on territorial control. Meanwhile, Figure C.1b demonstrates this same effect, but uses the full sample of rebel groups. Results are consistent with expectations.

Table C.3: Fixed Effects, Panel

	(1)	(2)	(3)
Revolutionary Goals	1.37*** (0.44)	1.48*** (0.39)	2.08*** (0.30)
Rebel Strength	-0.02 (0.20)	-0.08 (0.14)	0.11 (0.15)
Competition	0.17** (0.08)	0.12 <sup>+</sup> (0.08)	0.16*** (0.05)
Infant Mortality	0.00 (0.01)	0.01 (0.01)	-0.01 (0.01)
Population Density	-0.10 (0.21)	-0.19 (0.20)	1.34* (0.70)
GDPpc	0.40 (0.29)	0.68*** (0.24)	-0.94*** (0.24)
Rugged Terrain	0.20 (0.14)	0.37** (0.14)	
Constant	-1.92 (3.10)	-4.39 <sup>+</sup> (2.75)	0.98 (4.40)
Region Fixed Effects	Yes	Yes	No
Decade Fixed Effects	No	Yes	No
Country Fixed Effects	No	No	Yes
Observations	449	449	449
$R^2$	0.354	0.427	0.714

Note: The unit of analysis for all models in Table C.3 is insurgency-year. The dependent variable for all models in Table C.3 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. <sup>+</sup>  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C.4: **Additional Controls, Panel**

	(1)	(2)	(3)	(4)	(5)	(6)
Revolutionary Goals	1.60*** (0.46)	1.95*** (0.43)	1.39*** (0.44)	1.57*** (0.46)	1.64*** (0.53)	1.44*** (0.41)
Rebel Strength	0.09 (0.24)	0.01 (0.28)	0.20 (0.24)	0.05 (0.25)	0.13 (0.21)	
Competition	0.17* (0.08)	0.20** (0.09)	0.20** (0.08)	0.19** (0.08)	0.19** (0.09)	0.20* (0.10)
Infant Mortality	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.00 (0.01)
Population Density	-0.22 (0.24)	-0.16 (0.22)	-0.15 (0.22)	-0.31 (0.24)	-0.23 (0.20)	-0.22 (0.24)
GDP per capita	0.37 (0.30)	0.38 (0.29)	0.46 <sup>+</sup> (0.29)	0.35 (0.30)	0.55** (0.22)	0.41 (0.29)
Rugged Terrain	0.18 (0.14)	-0.05 (0.17)	0.27** (0.12)	0.17 (0.15)	0.44*** (0.10)	0.21 (0.16)
Duration	0.04 (0.03)					
Group Size		0.43** (0.17)				
Intensity			0.06 (0.05)			
Non-Military Support				0.50 <sup>+</sup> (0.32)		
Resource Wealth					-0.13*** (0.03)	
Rebel Strength Categories						Yes
Constant	-2.12 (3.39)	-5.69** (2.62)	-3.47 (3.05)	-1.59 (3.35)	-1.60 (2.68)	-1.25 (3.32)
Observations	449	416	432	393	363	449
$R^2$	0.335	0.342	0.333	0.356	0.491	0.334

*Note:* The unit of analysis for all models in Table C.4 is insurgency-year. The dependent variable for all models in Table C.4 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table C.5: **Outliers Omitted, Panel**

	(1)
Revolutionary Goals	1.88*** (0.45)
Rebel Strength	0.02 (0.24)
Competition	0.18** (0.08)
Infant Mortality	0.01 (0.01)
Population Density	-0.31 (0.24)
GDP per capita	0.36 (0.29)
Rugged Terrain	0.12 (0.15)
Constant	-1.49 (3.39)
Observations	439
$R^2$	0.367

*Note:* The unit of analysis in Table C.5 is insurgency-year. The dependent variable in Table C.5 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C.6: **Jackknifing, Panel**

	(1)
Revolutionary Goals	1.63** (0.72)
Rebel Strength	0.07 (0.38)
Competition	0.17+ (0.12)
Infant Mortality	0.00 (0.01)
Population Density	-0.26 (0.30)
GDP per capita	0.35 (0.39)
Rugged Terrain	0.20 (0.24)
Constant	-1.56 (4.27)
Observations	449
$R^2$	0.324

*Note:* The unit of analysis in Table C.6 is insurgency-year. The dependent variable in Table C.6 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C.7: **Alternative Estimator, Panel**

	(1)
Revolutionary Goals	2.10*** (0.56)
Rebel Strength	0.18 (0.32)
Competition	0.28** (0.13)
Infant Mortality	0.00 (0.01)
Population Density	-0.34 (0.37)
GDP per capita	0.38 (0.39)
Rugged Terrain	0.16 (0.17)
cut1	
Constant	3.29 (4.40)
cut2	
Constant	3.75 (4.43)
cut3	
Constant	4.37 (4.49)
cut4	
Constant	4.42 (4.49)
Observations	449
Pseudo $R^2$	0.150

*Note:* The unit of analysis in Table C.7 is insurgency-year. The dependent variable in Table C.7 is the extensiveness of rebel governance institutions, which varies from 0 to +4. Ordered logistic regression is used and logistic coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C.8: **Alternative Dependent Variable, Panel**

	(1)	(2)	(3)	(4)
	Binary (High)	Binary (Low)	Education	Health
Revolutionary Goals	1.94*** (0.65)	1.99*** (0.64)	0.59** (0.22)	0.89*** (0.21)
Rebel Strength	-0.10 (0.39)	-0.15 (0.39)	0.11 (0.14)	0.05 (0.11)
Competition	0.33** (0.15)	0.30* (0.16)	0.07* (0.04)	0.09* (0.05)
Infant Mortality	0.00 (0.01)	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)
Population Density	-0.57 <sup>+</sup> (0.36)	-0.54 <sup>+</sup> (0.36)	0.06 (0.13)	-0.19 <sup>+</sup> (0.12)
GDP per capita	0.74 <sup>+</sup> (0.48)	0.72 <sup>+</sup> (0.47)	0.08 (0.18)	0.16 (0.16)
Rugged Terrain	0.39 <sup>+</sup> (0.24)	0.46** (0.23)	0.02 (0.10)	0.10* (0.05)
Constant	-6.44 (5.19)	-6.56 (5.13)	-0.79 (2.03)	-0.53 (1.67)
Observations	449	449	549	453
Pseudo $R^2$	0.280	0.289		
$R^2$			0.150	0.355

*Note:* The unit of analysis in Table C.8 is insurgency-year. In Model 1, the dependent variable is a binary indicator of whether a rebel group provided the most extensive governance (a score of +4), and in Model 2, the dependent variable is a binary indicator of whether the rebel group provided more extensive governance (a score of +3 or +4). In Model 3, the dependent variable is a trichotomous measure (ranging from 0 to +2) of the extensiveness of rebel education. In Model 4, the dependent variable is a trichotomous measure (ranging from 0 to +2) of the extensiveness of rebel health care. In Models 1 and 2, logistic regression is used and logistic coefficients are reported. In Models 3 and 4 OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C.9: **Bias through Missingness, Panel**

	(1) No Missingness	(2) Large Groups	(3) Post-1970s Groups
Revolutionary Goals	1.17*** (0.36)	1.54*** (0.46)	1.31** (0.48)
Rebel Strength	0.12 (0.27)	0.03 (0.23)	-0.19 (0.22)
Competition	0.13 (0.10)	0.03 (0.10)	0.15* (0.08)
Infant Mortality	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)
Population Density	0.10 (0.29)	-0.36 (0.26)	-0.21 (0.26)
GDPpc	0.17 (0.34)	0.12 (0.34)	0.41 <sup>+</sup> (0.27)
Rugged Terrain	-0.03 (0.18)	0.22 (0.21)	0.35*** (0.12)
Constant	-1.85 (3.70)	1.33 (3.55)	-2.21 (3.11)
Observations	590	354	361
$R^2$	0.141	0.261	0.392

*Note:* The unit of analysis for all models in Table C.9 is insurgency-year. The dependent variable for all models in Table C.9 is the extensiveness of rebel governance institutions, which varies from 0 to +4. To account for bias due to missingness, in Model 1, I replace all missing values for extensiveness of governance institutions with a 0, indicating no governance. In Model 2, I assume that larger rebel groups will have more information about them, so I limit the sample to all rebel groups that are above average (mean) in size, based on the variable *Rebel Group Size*. Finally, in Model 3, I assume that more contemporary rebel groups will have more information about them, and re-analyze the data using all rebel groups that operated after 1970. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. <sup>+</sup>  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C.10: **Bootstrapping, Panel**

	(1)
Revolutionary Goals	1.63*** (0.39)
Rebel Strength	0.07 (0.21)
Competition	0.17** (0.08)
Infant Mortality	0.00 (0.01)
Population Density	-0.26+ (0.16)
GDP per capita	0.35+ (0.22)
Rugged Terrain	0.20+ (0.12)
Constant	-1.56 (2.23)
Observations	449
$R^2$	0.324

*Note:* The unit of analysis in Table C.10 is insurgency-year. The dependent variable in Table C.10 is the extensiveness of rebel governance institutions, which varies from 0 to +4. OLS regression coefficients are reported. Positive coefficients correspond to more extensive institutions. The positive coefficient of *Revolutionary Goals* supports the hypothesis that rebel groups espousing revolutionary goals provide more extensive governance. Standard errors in parentheses and are clustered by country. +  $p < 0.15$ , \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## Appendix D: Further Analysis of Extensiveness of Rebel Governance and Victory

To test whether more extensive rebel governance was associated with military victory, I used the conflict termination variable from the Non-State Actor Dataset (Cunningham et al. 2009). Based off of new information available from a variety of sources, I updated outcome measures. Using new information from Version 5 of the Conflict Termination Dataset (Kreutz 2010), I changed the following entries: the Afar Liberation Front in Ethiopia, the National Council for the Defense of Democracy (CNDD) in Burundi, the Communist Party of India-Hyderabad (CPI) in Hyderabad, the National Liberation Front of Chad (FROLINAT) in Chad, Hezb-i-Islami in Afghanistan and the Khmer Rouge/PDK in Cambodia. Fortna (2015) updated nine additional cases, according to the data notes. I follow the same procedures and update these cases to match Fortna (2015). Finally, 14 cases in the Non-State Actor Dataset are listed as the termination of anti-colonial conflicts (a '7' in the dataset). Given that some of these rebel groups were successful while others failed, I updated this coding to reflect conflict outcomes beyond the cessation of an anti-colonial conflict. Appendix Table D.1 reports my coding decisions with respect to the conflict outcomes of these 14 cases.

Table D.1: Summary of Coding Decisions Added to Data

Case	Victory?
Khmer Issarak	Yes, upon conclusion of the First Indochinese War, Cambodia attained independence in 1954 (Kiernan 1981, 173-175).
Indonesia People's Army	Yes, the IPA defeated the dutch in 1949 and Indonesia gained independence on December 27th 1949 (Friend 2003, 38).
Lao Issara	Yes, upon conclusion of the First Indochinese War, Laos attained independence in 1954 (Kiernan 1981, 174).
Viet Minh	Yes, upon conclusion of the First Indochinese War, Vietnam attained independence in 1954, partitioned with an independent state of North Vietnam (Khanh 1971, 762).
Communist Party of Malaya (CPM/MCP)	No, the CPM failed to contest the colonial state and the Malaya Emergency was declared over in 1960, although formal peace wouldn't come about until 1989. (Hack 2009, 383).
Istiqlal Party	Yes, after a nationalist revolt including the Istiqlal Party, Morocco won independence in 1956. (Willis 2014, 41-42).
National Liberation Army (Tunisia)	Coded as missing, no available data.
Front de Liberation Nationale (Algeria)	Yes, at the conclusion of the Algerian War in 1962, Algeria signed the Evian Accords with France, granting independence. (Lewis 1966, 165).
Union of the Peoples of Cameroon (UPC)	Yes, ended in a draw. The UPC achieved the Cameroonian independence they were looking for in 1960, and continued fighting thereafter, but support faded overtime (Weigert 1996, 42).
MPLA	Yes, it succeeded in getting independence from Portugal in 1975, before starting another civil war other rebel groups in Angola (Oliveira 2017, 12).
African Party for the Independence of Guinea and Cape Verde (PAIGC)	Yes, Guinea-Bissau achieved independence in 1975 (Chabal 1981, 99).
Frente de Libertacao de Moza-cambique (FRELIMO)	Yes, anti-colonial forces defeated the Portuguese and FRELIMO "emerged as the new nation's only effective political and military force." (Weigert 1996, 69).
Front for the Liberation of Occupied South Yemen (FLOSY)	No, FLOSY failed to beat the British or the NLF, who the British recognized as the victor in Yemen (Halliday 1990, 16-17).
Algerian National Movement (MNA)	Coded as missing because the MNA was defeated by another rebel group, the Algerian FLN. Because the organization was defeated by another rebel group and not a government, I code it as missing because neither the "government victory" outcome does not apply here (Krause 2017, 102).
National Liberation Front (NLF, Yemen)	Yes, the British recognized the NLF as the victor in Yemen (Halliday 1990, 16-17).



**Table D.2: Extensive Governance and Rebel Victory or Settlement, No Secessionist or Anti-Colonial Movements**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (High)</i>	<b>TOTAL</b>
<i>No Victory</i>	14 (74%)	10 (56%)	24 (65%)
<i>Victory</i>	5 (26%)	8 (44%)	13 (35%)
<b>TOTAL</b>	<b>19</b>	<b>18</b>	<b>37</b>

Note:  $\chi^2=1.3329$  indicates that any differences are not statistically significant.

**Table D.3: Extensive Governance and Rebel Victory or Settlement, Lower Governance Threshold**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (Low)</i>	<b>TOTAL</b>
<i>No Victory</i>	22 (67%)	22 (63%)	44 (65%)
<i>Victory</i>	11 (33%)	13 (37%)	24 (35%)
<b>TOTAL</b>	<b>33</b>	<b>35</b>	<b>68</b>

Note:  $\chi^2=0.1079$  indicates that any differences are not statistically significant.

**Table D.4: Extensive Governance and Rebel Victory or Settlement, No Secessionist or Anti-Colonial Movements and Lower Governance Threshold**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (High)</i>	<b>TOTAL</b>
<i>No Victory</i>	12 (71%)	12 (60%)	24 (65%)
<i>Victory</i>	5 (29%)	8 (38%)	13 (40%)
<b>TOTAL</b>	<b>17</b>	<b>20</b>	<b>37</b>

Note:  $\chi^2=0.4520$  indicates that any differences are not statistically significant.

Table D.5: **Extensive Governance and Rebel Victory**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (High)</i>	<b>TOTAL</b>
<i>No Victory</i>	26 (72%)	23 (72%)	49 (72%)
<i>Victory</i>	10 (28%)	9 (28%)	19 (28%)
<b>TOTAL</b>	<b>36</b>	<b>32</b>	<b>68</b>

Note:  $\chi^2=0.0015$  indicates that any differences are not statistically significant.

Table D.6: **Extensive Governance and Rebel Victory, No Secessionist or Anti-Colonial Movements**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (High)</i>	<b>TOTAL</b>
<i>No Victory</i>	14 (74%)	12 (67%)	26 (70%)
<i>Victory</i>	5 (26%)	6 (33%)	11 (30%)
<b>TOTAL</b>	<b>19</b>	<b>18</b>	<b>37</b>

Note:  $\chi^2=0.2179$  indicates that any differences are not statistically significant.

Table D.7: **Extensive Governance and Rebel Victory, Lower Governance Threshold**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (Low)</i>	<b>TOTAL</b>
<i>No Victory</i>	24 (73%)	25 (71%)	49 (72%)
<i>Victory</i>	9 (27%)	10 (29%)	19 (28%)
<b>TOTAL</b>	<b>33</b>	<b>35</b>	<b>68</b>

Note:  $\chi^2=0.0142$  indicates that any differences are not statistically significant.

**Table D.8: Extensive Governance and Rebel Victory, No Secessionist or Anti-Colonial Movements and Lower Governance Threshold**

	<i>Non-Extensive Governance</i>	<i>Extensive Governance (High)</i>	<b>TOTAL</b>
<i>No Victory</i>	12 (71%)	14 (70%)	26 (70%)
<i>Victory</i>	5 (29%)	6 (30%)	11 (30%)
<b>TOTAL</b>	<b>17</b>	<b>20</b>	<b>37</b>

*Note:*  $\chi^2=0.0015$  indicates that any differences are not statistically significant.