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A Descriptive Statistics

B Baseline Regression Models

B.1 Estimation Techniques Discussion

The baseline analysis presented in the paper uses FE Poisson regression with state-fixed effects given the count nature of the outcome data (0-138 events per day). Wooldridge (2010) notes that ordinary least squares (OLS) regression is not preferred for count data because $E(V_{ijt}|X)$ can be negative even when V_{ijt}, the count, is nonnegative. Therefore, applying OLS on count data may lead to inconsistent estimates in the presence of skewed data. I replicated the baseline models with two other estimation techniques for count data: the FE Poisson pseudo maximal likelihood (PPML) estimation with state-fixed effects used by Berman et al. (2022) and the zero-inflated Poisson models with standard errors clustered by state.

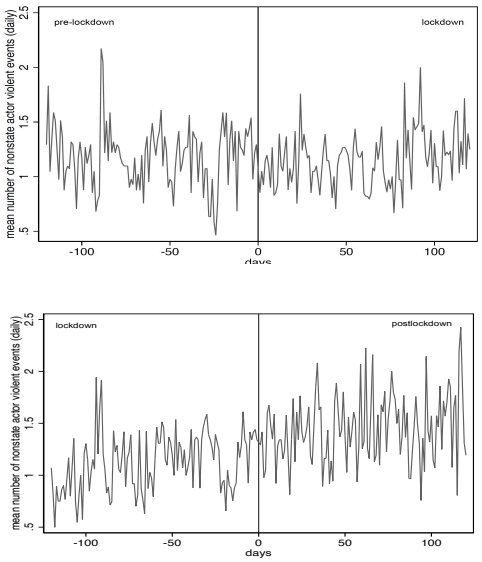
The FE PPML estimation allows for the fast estimation of Poisson models with high dimensional fixed effects and robust estimation (Correia, Guimaraes and Zylkin, 2020). PPML is estimated with quasipoisson distribution and a log-link function. The quasipoisson distribution can accommodate situations where data has many zero observations and more variance than expected under a pure Poisson distribution. (Motta, 54). There are few extreme values in the data and since I use state fixed-effects in the FE Poisson models and the FE PPML models, the number of zeros is significantly reduced. The state fixed-effects drop states where no violent events occurred in the analysis period, allowing for a cleaner comparison among only states with active nonstate actor groups.

The Zero-inflated Poisson (ZIP) models with standard errors clustered by state, unlike the FE Poisson and FE PPML models, do not exclude countries that do not experience nonstate actor violent events in the analysis period. Instead, they predict the "excess zeros" (in this case based on democracy/polyarchy). This allows us to explore the effect of lockdowns in all world states. However, the assumption that these models make that the states with "excess zeros" have no probability of experiencing a violent event is untenable. The probability is likely low but not zero. Furthermore, I am also not interested in modeling the zeros. Since they do not exclude cases with no variation in the outcome of interest, the number of countries included in the analysis is greater than in the fixed effect models. I do not use zero-inflated Poisson mixed effects models, which allow for fixed effects in the logistic model predicting the zeros, because I predict the "excess zeros" in the logistic model based on polyarchy/democracy (V-dem), which changes little, if at all, in most countries in the analysis period.

Wald Tests are used to test if there is a statistically significant difference between the short- and long-term effects of lockdowns. Rejecting the null hypothesis (i.e., coefficients are simultaneously equal to zero) indicates that there is a difference between them (Ramanathan, 2002, 156).

I do not use a fixed effects negative binomial regression because it does not control for all stable covariates (Allison and Waterman, 2002). Further, these models impose a very specific overdispersion (i.e., (1 + c(i)) where the mean effect is c(i)) that is unlikely to be true in practice; they are not known to be robust to the failure to meet of any of their assumptions, and often fail to converge, potentially due to the overdispersion parameter required for every unit in the cross-section (Wooldridge, 2019). I also do not use logistic regression, which Gutiérrez-Romero (2022) used, because it requires dichotomizing the data. This would account for whether or not a violent event occurred in a day rather than the number of events that occurred and, therefore, fail to capture the intensity of the violence initiated by nonstate actors.

Figure 1: Trends Pre- and Post-Lockdown



Note: Violence does not obviously appear to trend down right before lockdowns are imposed or up right before they are lifted.

B.2 Poisson Regression

Table 1: **Baseline Models (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5
dependent variable	NSA	NSA	NSA	NSA	SA
stringency index	-0.00186**				
	(0.000135)				
lockdown (shortterm)†		-0.124**	-0.185**	-0.146**	-0.419**
		(0.00899)	(0.0102)	(0.0118)	(0.01596)
lockdown (midterm)		0.0837**	0.0333**	-0.102**	-0.3937**
		(0.0113)	(0.0108)	(0.0144)	(0.0196)
lockdown (longterm)†		-0.111**	-0.0612**	-0.0418**	-0.293**
		(0.00988)	(0.00888)	(0.00751)	(0.017)
state violence (total week, lag)	9.12e-05**	9.73e-05**	9.12e-05**	8.98e-05**	
	(2.17e-06)	(2.17e-06)	(2.17e-06)	(2.18e-06)	
deaths (week total, lag)	-5.56e-05**	-5.65e-05**	-4.88e-05**	-5.83e-05**	-0.0001**
	(6.67e-06)	(6.70e-06)	(6.48e-06)	(6.72e-06)	(0.00001)
entrance	-1.557**	-1.508**	-1.542**	-1.545**	1.0089**
	(0.0474)	(0.0481)	(0.0481)	(0.0479)	(0.0256)
exit	-1.750**	-1.630**	-1.705**	-1.738**	-2.734**
	(0.0307)	(0.0321)	(0.0320)	(0.0311)	(0.0646)
observations	112,556	112,556	112,556	112,556	81,720
log likelihood	-74929.789	-74828.694	-74827.991	-74932.721	-41513.685
state	62	62	62	62	45
Wald Test (Chi2)†		1.22	107.91	72.18	36.73
prob>chi2		0.2694	0.00	0.00	0.00

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal. NSA=number of violent events initiated by nonstate actors; SA=number of violent events initiated by state actors. Lockdowns are defined by 40%, 50%, 60%, and 50% cutpoints in Models 2, 3, 4, and 5 respectively.

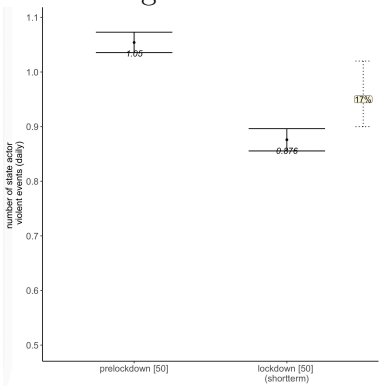
B.3 Poisson Regression

Table 2: **Baseline Models-Additional Models (Poisson, FE)**

	Model 1	Model 2
dependent variable	NSA	NSA
prelockdown [50]	0.06†**	0.185†**
	(0.01)	(0.01)
lockdown [50] (shortterm)	-0.1241†**	
	(0.01)	
lockdown [50] (midterm)	0.09**	0.22**
	(0.01)	(0.01)
lockdown [50] (longterm)		0.12†**
		(0.01)
state violence (total week, lag)	0.00009**	0.00009**
	(2.17e-06)	(2.17e-06)
deaths (week total, lag)	-0.00005**	-0.00005**
	(6.48e-06)	(6.48e-06)
entrance	-1.54**	-1.54**
	(0.048)	(0.048)
exit	-1.705**	-1.705**
	(0.032)	(0.032)
observations	112,556	112,556
log likelihood	-74827.99	-74827.991
state	62	62
Wald Test (Chi2)†	328.15	47.48
prob>chi2	0.00	0.00

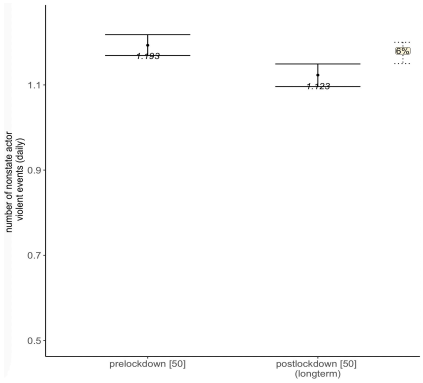
Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal.

Figure 2: Short- and Long-term Effects of Lockdowns



Nonstate Actors (Table 2, Model 1)

Note: Figure depicts the predicted number of violent events initiated daily by nonstate actors at the state level where the fixed effect is zero and controls (i.e., state-initiated violent events (total week, lag), COVID-19 deaths (total week, lag), exit and entrance) are set at their means. For each lockdown measure, the value represents the predicted number of violent events when the measure equals one and all other lockdown measures equal zero. Lockdown [50] (midterm) is omitted from the figure. Solid bars represent 95% confidence intervals.



Nonstate Actors (Table 2, Model 2)

Note: Figure depicts the predicted number of violent events initiated daily by state actors at the state level where the fixed effect is zero and controls (i.e., COVID-19 deaths (total week, lag), exit and entrance) are set at their means. For each lockdown measure, the value represents the predicted number of violent events when the measure equals one and all other lockdown measures equal zero. Lockdown [50] (midterm) is omitted from the figure. Solid bars represent 95% confidence intervals.

Table 3: **Eight Policy Lockdown Measures (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NSA
lockdown	-0.125**	-0.127**	-0.238**	-0.0604**	-0.0178*	-0.0604**	-0.109**	-0.229**
	(0.00848)	(0.00871)	(0.0100)	(0.00845)	(0.00847)	(0.00845)	(0.00988)	(0.00982)
state violence (total week, lag)	9.16e-05**	9.38e-05**	9.01e-05**	9.63e-05**	9.58e-05**	9.63e-05**	9.34e-05**	9.05e-05**
	(2.14e-06)	(2.14e-06)	(2.15e-06)	(2.11e-06)	(2.13e-06)	(2.11e-06)	(2.14e-06)	(2.17e-06)
deaths (week total, lag)	-6.08e-05**	-5.30e-05**	-5.74e-05**	-6.93e-05**	-7.94e-05**	-6.93e-05**	-6.62e-05**	-5.71e-05**
	(6.69e-06)	(6.60e-06)	(6.60e-06)	(7.01e-06)	(7.16e-06)	(7.01e-06)	(6.86e-06)	(6.64e-06)
entrance	-1.587**	-1.576**	-1.545**	-1.563**	-1.561**	-1.563**	-1.576**	-1.578**
	(0.0474)	(0.0474)	(0.0474)	(0.0474)	(0.0474)	(0.0474)	(0.0474)	(0.0474)
exit	-1.770**	-1.682**	-1.779**	-1.734**	-1.737**	-1.734**	-1.752**	-1.752**
	(0.0308)	(0.0309)	(0.0308)	(0.0307)	(0.0307)	(0.0307)	(0.0307)	(0.0308)
observations	112,556	112,556	112,556	112,556	112,556	112,556	112,556	112,556
log likelihood	-74914.743	-74917.966	-74733.756	-75000.136	-75023.703	-75000.136	-74963.638	-74739.868
states	62	62	62	62	62	62	62	62

Note: *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors. Lockdowns are as follows: Model 1 (schools), Model 2 (work), Model 3 (stay-at-home), Model 4 (public events), Model 5 (gatherings), Model 6 (transportation), Model 7 (internal travel), and Model 8 (international travel).

Table 4: **Eight Policy Lockdown Measures-Longterm (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NSA
lockdowns (shortterm)†	-0.133**	-0.141**	-0.225**	-0.0756**	0.0270**	-0.0756**	-0.127**	-0.235**
	(0.00892)	(0.00902)	(0.0104)	(0.00884)	(0.00901)	(0.00884)	(0.0103)	(0.0104)
lockdowns (midterm)	0.00711	-0.0492**	-0.0286**	-0.00214	0.0963**	-0.00214	0.0415**	-0.149**
	(0.0135)	(0.0140)	(0.00978)	(0.0115)	(0.0111)	(0.0115)	(0.0114)	(0.0105)
lockdowns (longterm)†	-0.0351**	-0.0525**	0.102**	-0.0892**	0.188**	-0.0892**	-0.106**	0.0996**
	(0.00888)	(0.00943)	(0.0104)	(0.00967)	(0.0133)	(0.00967)	(0.00864)	(0.00902)
state violence (total week, lag)	9.16e-05**	9.17e-05**	9.01e-05**	9.57e-05**	9.84e-05**	9.57e-05**	9.63e-05**	8.45e-05**
	(2.18e-06)	(2.20e-06)	(2.16e-06)	(2.21e-06)	(2.10e-06)	(2.21e-06)	(2.20e-06)	(2.25e-06)
deaths (week total, lag)	-5.80e-05**	-5.04e-05**	-5.77e-05**	-6.74e-05**	-9.89e-05**	-6.74e-05**	-6.18e-05**	-4.26e-05**
	(6.66e-06)	(6.53e-06)	(6.62e-06)	(6.98e-06)	(7.74e-06)	(6.98e-06)	(6.84e-06)	(6.35e-06)
entrance	-1.556**	-1.533**	-1.545**	-1.483**	-1.714**	-1.483**	-1.483**	-1.703**
	(0.0480)	(0.0482)	(0.0474)	(0.0482)	(0.0486)	(0.0482)	(0.0480)	(0.0482)
exit	-1.736**	-1.673**	-1.884**	-1.669**	-1.886**	-1.669**	-1.637**	-1.907**
	(0.0319)	(0.0310)	(0.0322)	(0.0316)	(0.0333)	(0.0316)	(0.0319)	(0.0320)
observations	112,556	112,556	112,556	112,556	112,556	112,556	112,556	112,556
log likelihood	-74906.385	-74898.158	-74673.343	-74956.329	-74902.899	-74956.329	-74870.488	-74552.198
states	62	62	62	62	62	62	62	62
Wald Test (Chi2)†	82.89	55.98	627.14	1.38	135.28	1.38	3.04	786.57
prob>chi2	0.00	0.00	0.00	0.2404	0.00	0.2404	0.0811	0.000

Note: *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors †Null hypothesis is that coefficients are equal. Lockdowns are as follows: Model 1 (schools), Model 2 (work), Model 3 (stay-at-home), Model 4 (public events), Model 5 (gatherings), Model 6 (transportation), Model 7 (internal travel), and Model 8 (international travel).

Table 5: **Baseline Models - Time (Poisson FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	NSA	NSA	NSA	NSA	NSA	NSA
dependent variable	2020-onwards	2020-onwards	year controls	year controls	month controls	month controls
stringency index	-0.00218**		-0.00172**		-0.00186**	
	(0.000208)		(0.000161)		(0.000135)	
lockdown [50] (shortterm)†		-0.170**		-0.164**		-0.185**
		(0.011)		(0.0137)		(0.0102)
lockdown [50] (midterm)				0.0566**		0.0326**
				(0.0149)		(0.0108)
lockdown [50] (longterm)†				-0.0265		-0.0625**
				(0.0177)		(0.00893)
entrance	-1.485**	-1.522**	-1.545**	-1.537**	-1.558**	-1.542**
	(0.0513)	(0.0514)	(0.0480)	(0.0481)	(0.0474)	(0.0481)
exit	-1.809**	-1.812**	-1.739**	-1.701**	-1.751**	-1.706**
	(0.0321)	(0.032)	(0.0316)	(0.0320)	(0.0308)	(0.0320)
state violence (total week, lag)	6.86e-05**	6.70e-05**	9.13e-05**	9.16e-05**	9.11e-05**	9.11e-05**
	(3.21e-06)	(3.18e-06)	(2.17e-06)	(2.18e-06)	(2.17e-06)	(2.17e-06)
deaths (week total, lag)	3.54e-06	5.23e-06	-5.54e-05**	-4.82e-05**	-5.58e-05**	-4.90e-05**
	(5.69e-06)	(5.61e-06)	(6.66e-06)	(6.47e-06)	(6.68e-06)	(6.48e-06)
month	0.00434**	0.00354**			0.000942	0.00128
	(0.00129)	(0.00129)			(0.000923)	(0.000928)
year			-0.00452	-0.0119*		
			(0.00291)	(0.00523)		
observations	62,988	62,988	112,556	112,556	112,556	112,556
states	58	58	62	62	62	62
log likelihood	-42896.949	-42834.435	-74928.584	-74825.418	-74929.269	-74827.046
Wald Test (Chi2)†				316.58		386.97
prob>chi2				0.00		0.00

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal. NSA=number of violent events initiated by nonstate actors. I did not test the long-term effect of lockdowns for the 2020-2023 period (Model 2) because the reference category for prelockdowns (outside of the pandemic) would be very small in this analysis.

B.4 Poisson Pseudo Maximum Likelihood

Table 6: **Baseline Models (Poisson Pseudo Maximum Likelihood (PPML, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5
dependent variable	NSA	NSA	NSA	NSA	SA
stringency index	-0.00186**				
	(0.000222)				
lockdown (shortterm)†		-0.124**	-0.185**	-0.146**	-0.419**
		(0.0149)	(0.0165)	(0.0184)	(0.0325)
lockdown (midterm)		0.0837**	0.0333	-0.102**	-0.394**
		(0.0190)	(0.0187)	(0.0214)	(0.0390)
lockdown (longterm)†		-0.111**	-0.0612**	-0.0418**	-0.293**
		(0.0182)	(0.0158)	(0.0138)	(0.0355)
state violence (total week, lag)	9.12e-05**	9.73e-05**	9.12e-05**	8.98e-05**	
	(5.81e-06)	(5.74e-06)	(5.80e-06)	(5.88e-06)	
deaths (week total, lag)	-5.56e-05**	-5.65e-05**	-4.88e-05**	-5.83e-05**	-6.19e-05*
	(9.23e-06)	(9.27e-06)	(8.65e-06)	(9.52e-06)	(2.70e-05)
entrance	-1.557**	-1.508**	-1.542**	-1.545**	1.009**
	(0.0927)	(0.0948)	(0.0937)	(0.0933)	(0.0496)
exit	-1.750**	-1.630**	-1.705**	-1.738**	-2.734**
	(0.0493)	(0.0521)	(0.0516)	(0.0501)	(0.100)
constant	1.537**	1.527**	1.537**	1.537**	1.292**
	(0.0115)	(0.0121)	(0.0121)	(0.0122)	(0.0117)
observations	112,556	112,556	112,556	112,556	81,720
log likelihood	-75118.267	-75017.172	-75016.468	-75121.199	-41641.75
states	62	62	62	62	45
Wald Test (Chi2)†		0.40	39.52	27.89	7.65
prob>chi2		0.5263	0.00	0.00	0.01

Note: *p≤0.05 and **p≤0.01. Robust standard errors. NSA=number of violent events initiated by nonstate actors. SA=number of violent events initiated by state actors. †Null hypothesis is that coefficients are equal. Lockdowns are defined by a 40%, 50%, 60%, and 50% cutpoints in Models 2, 3, 4 and 5 respectively.

Table 7: **Eight Policy Lockdown Measures (PPML, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NSA
lockdown	-0.125**	-0.127**	-0.238**	-0.0604**	-0.0178	-0.0604**	-0.109**	-0.229**
	(0.0145)	(0.0148)	(0.0165)	(0.0143)	(0.0138)	(0.0143)	(0.0157)	(0.0165)
state violence (total week, lag)	9.16e-05**	9.38e-05**	9.01e-05**	9.63e-05**	9.58e-05**	9.63e-05**	9.34e-05**	9.05e-05**
	(5.68e-06)	(5.69e-06)	(5.77e-06)	(5.60e-06)	(5.69e-06)	(5.60e-06)	(5.80e-06)	(5.94e-06)
deaths (week total, lag)	-6.08e-05**	-5.30e-05**	-5.74e-05**	-6.93e-05**	-7.94e-05**	-6.93e-05**	-6.62e-05**	-5.71e-05**
	(9.55e-06)	(9.03e-06)	(9.46e-06)	(1.05e-05)	(1.13e-05)	(1.05e-05)	(1.02e-05)	(9.58e-06)
entrance	-1.587**	-1.576**	-1.545**	-1.563**	-1.561**	-1.563**	-1.576**	-1.578**
	(0.0926)	(0.0924)	(0.0925)	(0.0925)	(0.0928)	(0.0925)	(0.0925)	(0.0925)
exit	-1.770**	-1.682**	-1.779**	-1.734**	-1.737**	-1.734**	-1.752**	-1.752**
	(0.0490)	(0.0499)	(0.0494)	(0.0489)	(0.0490)	(0.0489)	(0.0493)	(0.0492)
constant	1.526**	1.522**	1.537**	1.506**	1.500**	1.506**	1.514**	1.534**
	(0.0104)	(0.0104)	(0.0103)	(0.0101)	(0.0107)	(0.0101)	(0.0105)	(0.0104)
observations	112,556	112,556	112,556	112,556	112,556	112,556	112,556	112,556
log likelihood	-75103.221	-75106.444	-74922.233	-75188.614	-75212.181	-75188.614	-75152.115	-74928.346
states	62	62	62	62	62	62	62	62

Note: *p≤0.05 and **p≤0.01. Robust standard errors. NSA=number of violent events initiated by nonstate actors. Lockdowns are as follows: Model 1 (schools), Model 2 (work), Model 3 (stay-at-home), Model 4 (public events), Model 5 (gatherings), Model 6 (transportation), Model 7 (internal travel), and Model 8 (international travel).

Table 8: **Eight Policy Lockdown Measures-Longterm (PPML, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NSA
lockdowns (shortterm)†	-0.133**	-0.141**	-0.225**	-0.0756**	0.0270	-0.0756**	-0.127**	-0.235**
	(0.0154)	(0.0155)	(0.0173)	(0.0152)	(0.0149)	(0.0152)	(0.0166)	(0.0178)
lockdowns (midterm)	0.00711	-0.0492*	-0.0286	-0.00214	0.0963**	-0.00214	0.0415*	-0.149**
	(0.0228)	(0.0235)	(0.0169)	(0.0190)	(0.0202)	(0.0190)	(0.0187)	(0.0191)
lockdowns (longterm)†	-0.0351*	-0.0525**	0.102**	-0.0892**	0.188**	-0.0892**	-0.106**	0.0996**
	(0.0152)	(0.0165)	(0.0190)	(0.0171)	(0.0223)	(0.0171)	(0.0158)	(0.0148)
state violence (total week, lag)	9.16e-05**	9.17e-05**	9.01e-05**	9.57e-05**	9.84e-05**	9.57e-05**	9.63e-05**	8.45e-05**
	(5.77e-06)	(5.87e-06)	(5.81e-06)	(5.86e-06)	(5.69e-06)	(5.86e-06)	(5.85e-06)	(6.18e-06)
deaths (week total, lag)	-5.80e-05**	-5.04e-05**	-5.77e-05**	-6.74e-05**	-9.89e-05**	-6.74e-05**	-6.18e-05**	-4.26e-05**
	(9.33e-06)	(8.73e-06)	(9.44e-06)	(1.03e-05)	(1.34e-05)	(1.03e-05)	(9.90e-06)	(8.29e-06)
entrance	-1.556**	-1.533**	-1.545**	-1.483**	-1.714**	-1.483**	-1.483**	-1.703**
	(0.0935)	(0.0935)	(0.0925)	(0.0937)	(0.0963)	(0.0937)	(0.0934)	(0.0938)
exit	-1.736**	-1.673**	-1.884**	-1.669**	-1.886**	-1.669**	-1.637**	-1.907**
	(0.0513)	(0.0500)	(0.0533)	(0.0512)	(0.0539)	(0.0512)	(0.0522)	(0.0522)
constant	1.534**	1.541**	1.526**	1.526**	1.463**	1.526**	1.531**	1.542**
	(0.0122)	(0.0122)	(0.0117)	(0.0123)	(0.0118)	(0.0123)	(0.0121)	(0.0127)
observations	112,556	112,556	112,556	112,556	112,556	112,556	112,556	112,556
log likelihood	-75094.863	-75086.635	-74861.821	-75144.807	-75091.377	-75144.807	-75058.966	-74740.676
states	62	62	62	62	62	62	62	62
Wald Test (Chi2)†	30.08	19.62	207.73	0.48	50.00	0.48	1.05	295.29
prob>chi2	0.00	0.00	0.00	0.4897	0.00	0.4897	0.3048	0.000

Note: *p≤0.05 and **p≤0.01. Robust standard errors. NSA=number of violent events initiated by nonstate actors. †Null hypothesis is that coefficients are equal. Lockdowns are as follows: Model 1 (schools), Model 2 (work), Model 3 (stay-at-home), Model 4 (public events), Model 5 (gatherings), Model 6 (transportation), Model 7 (internal travel), and Model 8 (international travel).

B.5 Zero-inflated Poisson

Table 9: **Baseline Models (ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5
dependent variable	NSA	NSA	NSA	NSA	SA
stringency index	-0.00524*				
	(0.00205)				
lockdown (shortterm)†		-0.472**	-0.345**	-0.277	-0.536**
		(0.121)	(0.123)	(0.169)	(0.107)
lockdown (midterm)		0.386*	0.327*	0.154	0.169
		(0.180)	(0.158)	(0.261)	(0.213)
lockdown (longterm)†		-0.110	-0.262	-0.153	-0.577
		(0.205)	(0.211)	(0.141)	(0.442)
state violence (total week, lag)	0.000266**	0.000271**	0.000263**	0.000270**	
	(3.91e-05)	(3.70e-05)	(3.61e-05)	(3.99e-05)	
deaths (week total, lag)	-0.000273	-0.000194	-0.000281	-0.000353	3.11e-05
entrance	-1.237**	-1.163**	-1.074**	-1.180**	1.451**
	(0.347)	(0.362)	(0.296)	(0.315)	(0.419)
exit	-0.389*	-0.338	-0.203	-0.299	-0.416
	(0.183)	(0.206)	(0.218)	(0.183)	(0.342)
constant	1.354**	1.315**	1.334**	1.320**	1.429**
	(0.195)	(0.214)	(0.216)	(0.210)	(0.306)
observations	294,875	294,875	294,875	294,875	294,974
log likelihood	-147041.48	-145504.14	-146106.41	-147196.1	-75280.722
states	169	169	169	169	169
Wald Test (Chi2)†		4.19	0.14	0.69	0.01
prob>chi2		0.04	0.710	0.406	0.912

Note: *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors. SA=number of violent events initiated by state actors. Inflation factor=polyarchy. †Null hypothesis is that coefficients are equal. Lockdowns are defined by 40%, 50%, 60%, and 50% cutpoints in Models 2, 3, 4, and 5 respectively.

Table 10: **Eight Policy Lockdown Measures (ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NSA
lockdowns	0.00639	-0.142	-0.224*	-0.291**	-0.334*	-0.291**	-0.225	-0.321*
	(0.0909)	(0.155)	(0.108)	(0.106)	(0.149)	(0.106)	(0.131)	(0.147)
state violence (total week, lag)	0.000274**	0.000275**	0.000269**	0.000275**	0.000260**	0.000275**	0.000274**	0.000274**
	(3.93e-05)	(3.87e-05)	(4.11e-05)	(3.78e-05)	(4.03e-05)	(3.78e-05)	(3.74e-05)	(3.55e-05)
deaths (week total, lag)	-0.000435	-0.000365	-0.000385	-0.000313	-0.000318	-0.000313	-0.000349	-0.000336
	(0.000272)	(0.000285)	(0.000266)	(0.000236)	(0.000222)	(0.000236)	(0.000259)	(0.000240)
entrance	-1.268**	-1.293**	-1.296**	-1.322**	-1.202**	-1.322**	-1.295**	-1.310**
	(0.325)	(0.322)	(0.322)	(0.321)	(0.395)	(0.321)	(0.323)	(0.326)
exit	-0.382*	-0.314	-0.419*	-0.326	-0.471*	-0.326	-0.409*	-0.398*
	(0.181)	(0.194)	(0.184)	(0.212)	(0.190)	(0.212)	(0.177)	(0.179)
constant	1.251**	1.273**	1.288**	1.299**	1.340**	1.299**	1.278**	1.285**
	(0.194)	(0.189)	(0.197)	(0.189)	(0.202)	(0.189)	(0.190)	(0.192)
observations	295,945	295,945	295,945	295,945	295,945	295,945	295,945	295,945
log likelihood	-147951.02	-147833.59	-147700.16	-147422.07	-147199.19	-147422.07	-147713.96	-147492.31
states	169	169	169	169	169	169	169	169

Note: *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors. Inflation factor=polyarchy. Lockdowns are as follows: Model 1 (schools), Model 2 (work), Model 3 (stay-at-home), Model 4 (public events), Model 5 (gatherings), Model 6 (transportation), Model 7 (internal travel), and Model 8 (international travel).

Table 11: **Eight Policy Lockdown Measures-Longterm (ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA	NSA
lockdown (shortterm)†	-0.0796	-0.171	-0.214	-0.289	-0.373	-0.289	-0.241	-0.335**
	(0.130)	(0.186)	(0.109)	(0.150)	(0.199)	(0.150)	(0.162)	(0.114)
lockdown (midterm)	0.370	0.0573	0.269	0.149	0.389*	0.149	0.132	0.135
	(0.195)	(0.278)	(0.148)	(0.256)	(0.164)	(0.256)	(0.282)	(0.185)
lockdown (longterm)†	-0.312	-0.136	-0.191	-0.0940	-0.546	-0.0940	-0.141	-0.170
	(0.207)	(0.199)	(0.295)	(0.200)	(0.348)	(0.200)	(0.228)	(0.282)
state violence (total week, lag)	0.000268**	0.000272**	0.000266**	0.000275**	0.000261**	0.000275**	0.000273**	0.000268**
	(3.51e-05)	(3.89e-05)	(3.94e-05)	(3.95e-05)	(3.22e-05)	(3.95e-05)	(3.83e-05)	(3.38e-05)
deaths (week total, lag)	-0.000352	-0.000357	-0.000386	-0.000329	-0.000210	-0.000329	-0.000358	-0.000345
	(0.000215)	(0.000289)	(0.000265)	(0.000262)	(0.000176)	(0.000262)	(0.000275)	(0.000254)
entrance	-1.018**	-1.186**	-1.282**	-1.232**	-0.883**	-1.232**	-1.177**	-1.159**
	(0.298)	(0.308)	(0.332)	(0.311)	(0.293)	(0.311)	(0.325)	(0.352)
exit	-0.141	-0.278	-0.220	-0.268	0.0668	-0.268	-0.291	-0.270
	(0.203)	(0.200)	(0.274)	(0.193)	(0.341)	(0.193)	(0.222)	(0.250)
constant	1.321**	1.305**	1.280**	1.303**	1.347**	1.303**	1.301**	1.319**
	(0.215)	(0.206)	(0.220)	(0.210)	(0.206)	(0.210)	(0.211)	(0.218)
observations	295,945	295,945	295,945	295,945	295,945	295,945	295,945	295,945
log likelihood	-146750.15	-147697.58	-147032.35	-147248.66	-145410.73	-147248.66	-147458.68	-147132.47
states	169	169	169	169	169	169	169	169
Wald Test (Chi2)†	1.90	0.02	0.01	0.94	0.59	0.94	0.22	0.28
prob>chi2	0.1675	0.884	0.937	0.3326	0.444	0.3326	0.636	0.5999

Note: *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors. Inflation factor=polyarchy. †Null hypothesis is that coefficients are equal. Lockdowns are as follows: Model 1 (schools), Model 2 (work), Model 3 (stay-at-home), Model 4 (public events), Model 5 (gatherings), Model 6 (transportation), Model 7 (internal travel), and Model 8 (international travel).

B.6 Subset: Noncivilian and Civilian Attacks

Table 12: **Subset: Noncivilian Attacks (Poisson, PPML, ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	NSA	NSA	NSA	NSA	NSA	NSA
dependent variable	(non-civilians)	(non-civilians)	(non-civilians)	(non-civilians)	(non-civilians)	(non-civilians)
stringency index	-0.00330**		-0.00330**		-0.00651**	
	(0.000154)		(0.000260)		(0.00225)	
lockdown (shortterm)†		-0.278**		-0.278**		-0.414**
		(0.0116)		(0.0189)		(0.130)
lockdown (midterm)		-0.0287*		-0.0287		0.245
		(0.0119)		(0.0214)		(0.158)
lockdown (longterm)†		-0.188**		-0.188**		-0.401
		(0.0106)		(0.0200)		(0.266)
entrance	-2.095**	-1.978**	-2.095**	-1.978**	-1.461**	-1.183**
	(0.0622)	(0.0629)	(0.130)	(0.132)	(0.245)	(0.237)
exit	-1.881**	-1.738**	-1.881**	-1.738**	-0.423**	-0.133
	(0.0336)	(0.0353)	(0.0495)	(0.0530)	(0.157)	(0.239)
state violence (total week, lag)	9.09e-05**	9.06e-05**	9.09e-05**	9.06e-05**	0.000265**	0.000262**
	(2.25e-06)	(2.27e-06)	(5.16e-06)	(5.18e-06)	(3.89e-05)	(3.52e-05)
deaths (week total, lag)	-6.24e-05**	-5.18e-05**	-6.24e-05**	-5.18e-05**	-0.000304	-0.000301
	(8.55e-06)	(8.17e-06)	(1.23e-05)	(1.12e-05)	(0.000226)	(0.000202)
Constant			1.540**	1.557**	1.339**	1.334**
			(0.0129)	(0.0135)	(0.195)	(0.219)
Observations	103,480	103,480	103,480	103,480	294,875	294,875
log likelihood	-61679.349	-61527.953	-61845.588	-61694.191	-118370.66	-117578.26
states	57	57	57	57	169	169
Wald Test (Chi2)†		40.81		13.56		0.00
prob>chi2		0.00		0.00		0.96

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal. NSA=number of violent events initiated by nonstate actors. FE Poisson=Model 1 and 2; FE PPML= Model 3 and 4; ZIP=Model 5 and 6.

Table 13: **Subset: Civilian Attacks (Poisson, PPML, ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	NSA	NSA	NSA	NSA	NSA	NSA
dependent variable	(civilians)	(civilians)	(civilians)	(civilians)	(civilians)	(civilians)
stringency index	0.00335**		0.00335**		-0.000880	
	(0.000287)		(0.000344)		(0.00196)	
lockdown (shortterm)†		0.196**		0.196**		-0.345**
		(0.0223)		(0.0265)		(0.123)
lockdown (midterm)		0.343**		0.343**		0.327*
		(0.0258)		(0.0288)		(0.158)
lockdown (longterm)†		0.300**		0.300**		-0.262
		(0.0169)		(0.0205)		(0.211)
entrance	2.131**	1.938**	2.131**	1.938**	0.157	-1.074**
	(0.176)	(0.176)	(0.166)	(0.167)	(0.244)	(0.296)
exit	-0.751**	-0.898**	-0.751**	-0.898**	0.172	-0.203
	(0.0793)	(0.0807)	(0.141)	(0.140)	(0.327)	(0.218)
state violence (total week, lag)	5.78e-05**	6.68e-05**	5.78e-05	6.68e-05	0.000154**	0.000263**
	(9.73e-06)	(9.67e-06)	(3.95e-05)	(3.87e-05)	(4.25e-05)	(3.61e-05)
deaths (week total, lag)	-4.96e-05**	-4.10e-05**	-4.96e-05**	-4.10e-05**	-2.74e-05	-0.000281
	(1.02e-05)	(9.99e-06)	(1.15e-05)	(1.09e-05)	(6.05e-05)	(0.000207)
Constant			-0.448**	-0.537**	0.0271	1.334**
			(0.0205)	(0.0213)	(0.223)	(0.216)
Observations	101,664	101,664	101,664	101,664	294,875	294,875
states	56	56	56	56	169	169
log likelihood	-35858.381	-35722.965	-36011.461	-35876.045	-62892.649	-146106.41
Wald Test (Chi2)†		19.76		14.52		0.14
prob>chi2		0.00		0.00		0.710

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal. NSA=number of violent events initiated by nonstate actors. FE Poisson=Model 1 and 2; FE PPML= Model 3 and 4; ZIP=Model 5 and 6.

C Economic Pathway Models

C.1 Estimation Techniques Discussion

The economic models presented in the paper for which nonstate actor violence is the outcome use FE Poisson regression with state-fixed effects given the count nature of the outcome data (0-138 events per day). Wooldridge (2010) notes that ordinary least squares (OLS) regression is not preferred for count data because $E(V_{ijt}|X)$ can be negative even when V_{ijt}, the count, is nonnegative. The models where GDP and unemployment are the outcome measures use OLS since they are both continuous variables. I replicated the FE Poisson models with two other estimation techniques appropriate for count data: the FE Poisson pseudo maximal likelihood (PPML) estimation with state fixed-effects and standard errors clustered by state-quarter, as well as zero-inflated Poisson (ZIP) models with standard errors clustered by state-year-quarter.

The FE Poisson and the FE Poisson pseudo maximal likelihood (PPML) estimation both control for factors that do not vary within states over time through the fixed effects. In dropping the states for which there is no violence in the analysis through the fixed effects, the FE Poisson and FE PPML models allow for a cleaner comparison among only states that have active nonstate actors. The FE PPML models also allow me to cluster the standard errors by state-year-quarter. The economic data is quarterly and clustering the data by quarter ensures that all days within the same quarter in a state are not treated as independent observations in the calculation of the standard errors. The clustered results are more conservative as a result.

The ZIP models with standard errors clustered by state-year-quarter, unlike the FE Poisson and FE PPML models, do not exclude countries that do not experience any violent events in the analysis period. Since it does not exclude cases with no variation in the outcome of interest, the number of countries included in the analysis is greater than in the FE models. Instead, it predicts the "excess zeros" (in this case based on democracy/polyarchy (V-Dem)). The assumption that the states with "excess zeros" have no probability of experiencing a violent event is untenable. The probability is likely low, but not zero. I am also not interested in modeling the zeros. As in the FE PPML models, the clustering of the data by state-year-quarter ensures that all days within the same quarter are not treated as independent observations in the calculation of the standard errors.

Wald Tests are used to test if there is a statistically significant difference between the short- and long-term effects of lockdowns. Rejecting the null hypothesis (i.e., coefficients are simultaneously equal to zero) indicates that there is a significant difference between them (Ramanathan, 2002, 156).

To see the results of the identification models with economic controls, see Appendix E.1. For a discussion of why I do not use alternative models, such as fixed effects negative binomial or zero-inflated Poisson mixed-effects models, see *Baseline Models: Estimation Techniques Discussion.*

C.2 Economic Outcomes: OLS Regression

Table 14: **Economic Outcome Models (OLS, FE)**

	Model 1	Model 2	Model 3	Model 4
dependent variable	lnrealGDP	lnrealGDP	unemploy	unemploy
article models		Figure 3, Model 3		Figure 3, Model 4
lockdown (shortterm) [50] (qtr, lag)†		-0.0249**		0.800**
		(0.000476)		(0.00817)
lockdown (midterm) [50] (qtr, lag)		0.0471**		-0.0145
		(0.000662)		(0.0112)
lockdown (longterm) [50] (qtr, lag)†		0.0762**		-0.637**
		(0.000524)		(0.00883)
deaths (week total, lag)	-7.12e-07**	-4.36e-07*	0.000108**	0.000110**
	(1.96e-07)	(1.80e-07)	(3.51e-06)	(3.43e-06)
stringency index (qtr, lag)	-0.000135**		0.0112**	
	(6.59e-06)		(0.000105)	
Constant	11.09**	11.08**	6.835**	7.021**
	(0.000290)	(0.000268)	(0.00461)	(0.00454)
observations	139,727	139,727	127,309	127,309
R-squared	0.004	0.164	0.107	0.152
states	84	84	77	77
log likelihood	156151.41	168432.06	-204174.18	-200875.74
F-test†		22343.18		15703.74
prob >F		0.00		0.00

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal.

C.3 Poisson Regression

Table 15: **Economic Predictor Models (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA
article models	Figure 4a, Model 5		Figure 4a, Model 6	Figure 4b, Model 7		Figure 4b, Model 8	
stringency index		-0.00477**			-0.00359**		-0.00452**
		(0.000280)			(0.000360)		(0.000350)
lockdown [50] (shortterm)†			-0.330**			-0.315**	
			(0.0197)			(0.0250)	
lockdown [50] (midterm)			-0.175**			-0.0919*	
			(0.0431)			(0.0456)	
lockdown [50] (longterm)†			-0.399**			-0.728**	
			(0.0271)			(0.0344)	
state violence (total week, lag)	0.000118**	0.000110**	0.000112**	0.000102**	9.46e-05**	0.000110**	0.000112**
	(3.89e-06)	(4.15e-06)	(4.42e-06)	(3.87e-06)	(4.02e-06)	(4.52e-06)	(4.19e-06)
deaths (week total, lag)	-7.27e-05**	-1.99e-05**	-1.77e-05**	-0.000174**	-0.000110**	-5.02e-06	-4.05e-06
	(6.96e-06)	(6.38e-06)	(6.09e-06)	(1.37e-05)	(1.46e-05)	(1.51e-05)	(1.47e-05)
real GDP (ln qtr, lag)	-1.888**	-2.036**	-1.750**				-2.218**
	(0.0728)	(0.0736)	(0.0786)				(0.0830)
unemployment (qtr, lag)				0.00285	0.0225**	0.0166**	-0.0185**
				(0.00528)	(0.00555)	(0.00554)	(0.00599)
observations	42,660	42,660	42,660	35,490	35,490	35,490	30,311
states	24	24	24	22	22	22	18
log likelihood	-20240.31	-20092.658	-20025.367	-15270.709	-15219.097	-15000.059	-14548.742
Wald Test (Chi2)†			5.02			133.28	
prob >chi2			0.03			0.00	

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal.

Table 16: **Economic Predictor Models-Time (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA
stringency index	-0.00476**		-0.00360**		-0.00452**	
	(0.000281)		(0.000361)		(0.000351)	
lockdown [50] (shortterm)†		-0.331**		-0.320**		-0.359**
		(0.0198)		(0.0251)		(0.0248)
lockdown [50] (midterm)		-0.180**		-0.100*		-0.217**
		(0.0431)		(0.0457)		(0.0459)
lockdown [50] (longterm)†		-0.400**		-0.726**		-0.506**
		(0.0271)		(0.0344)		(0.0356)
state violence (total week, lag)	0.000111**	0.000113**	9.59e-05**	0.000110**	0.000114**	0.000117**
	(4.18e-06)	(4.45e-06)	(4.06e-06)	(4.55e-06)	(4.24e-06)	(4.59e-06)
deaths (week total, lag)	-2.03e-05**	-1.80e-05**	-0.000115**	-8.74e-06	-8.89e-06	3.86e-05**
	(6.41e-06)	(6.11e-06)	(1.47e-05)	(1.51e-05)	(1.47e-05)	(1.50e-05)
real GDP (ln qtr, lag)	-2.041**	-1.759**			-2.231**	-1.936**
	(0.0737)	(0.0787)			(0.0833)	(0.0878)
month	0.00289	0.00557*	0.00749**	0.00712**	0.0108**	0.0119**
	(0.00230)	(0.00229)	(0.00248)	(0.00249)	(0.00264)	(0.00263)
unemployment (qtr, lag)			0.0259**	0.0199**	-0.0148*	-0.0116
			(0.00563)	(0.00564)	(0.00603)	(0.00598)
observations	42,660	42,660	35,490	35,490	30,311	30,311
states	24	24	22	22	18	18
log likelihood	-20091.871	-20022.406	-15214.552	-14995.956	-14540.371	-14455.484
Wald Test (Chi2)†		5.04		128.70		15.25
prob >chi2		0.03		0.00		0.00

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal.

Table 17: **Economic Predictor Models-Time (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA
stringency index	-0.00128**		0.00188**		-0.000807	
	(0.000378)		(0.000422)		(0.000442)	
lockdown [50] (shortterm)†		-0.128**		-0.0205		-0.179**
		(0.0333)		(0.0378)		(0.0388)
lockdown [50] (midterm)		0.0320		0.199**		-0.0305
		(0.0512)		(0.0535)		(0.0546)
lockdown [50] (longterm)†		-0.0901		-0.250**		-0.248**
		(0.0494)		(0.0578)		(0.0580)
state violence (total week, lag)	0.000115**	0.000114**	0.000109**	0.000113**	0.000118**	0.000118**
	(4.25e-06)	(4.40e-06)	(4.23e-06)	(4.50e-06)	(4.29e-06)	(4.53e-06)
deaths (week total, lag)	-1.71e-05**	-1.59e-05**	-1.52e-05	8.78e-06	3.69e-05*	4.95e-05**
	(6.12e-06)	(6.03e-06)	(1.47e-05)	(1.50e-05)	(1.48e-05)	(1.50e-05)
real GDP (ln qtr, lag)	-1.597**	-1.584**			-1.817**	-1.800**
	(0.0805)	(0.0815)			(0.0883)	(0.0895)
year	-0.115**	-0.103**	-0.212**	-0.155**	-0.136**	-0.0898**
	(0.00871)	(0.0137)	(0.00979)	(0.0150)	(0.0105)	(0.0155)
unemployment (qtr, lag)			0.0139**	0.0144**	-0.0170**	-0.0155**
			(0.00540)	(0.00548)	(0.00584)	(0.00589)
observations	42,660	42,660	35,490	35,490	30,311	30,311
states	24	24	22	22	18	18
log likelihood	-20003.604	-19996.847	-14968.114	-14945.32	-14461.917	-14448.898
Wald Test (Chi2)†		1.25		33.17		2.86
prob >chi2		0.2640		0.00		0.09

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal.

Table 18: **Economic Predictor Models: Outcome: Civilian Attacks (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
dependent variable	NSA-CIV	NSA-CIV	NSA-CIV	NSA-CIV	NSA-CIV	NSA-CIV
stringency index		-0.000651			-0.000523	
		(0.000638)			(0.00108)	
lockdown[50] (shortterm)†			-0.0563			-0.128
			(0.0464)			(0.0812)
lockdown[50] (midterm)			0.120			0.0262
			(0.0960)			(0.113)
lockdown[50] (longterm)†			-0.126*			-0.222**
			(0.0528)			(0.0721)
state violence (total week, lag)	7.58e-05	7.39e-05	7.21e-05	6.90e-05	6.74e-05	6.13e-05
	(6.00e-05)	(6.08e-05)	(6.23e-05)	(6.25e-05)	(6.30e-05)	(6.72e-05)
deaths (week total, lag)	-2.90e-05**	-2.50e-05*	-2.57e-05**	-7.34e-05	-6.63e-05	-4.99e-05
	(9.22e-06)	(9.83e-06)	(9.78e-06)	(4.35e-05)	(4.58e-05)	(4.60e-05)
real GDP (ln qtr, lag)	-0.200	-0.212	0.00608			
	(0.239)	(0.240)	(0.264)			
unemployment (qtr, lag)				0.00918	0.0121	0.0165
				(0.0103)	(0.0119)	(0.0120)
observations	39,029	39,029	39,029	33,675	33,675	33,675
states	22	22	22	21	21	21
log likelihood	-8013.1267	-8012.6044	-8008.6392	-4802.3348	-4802.2179	-4796.6978
Wald Test (Chi2)†			1.33			1.14
prob >chi2			0.250			0.286

Note: *p≤0.05 and **p≤0.01. NSA-CIV=number of violent events initiated by nonstate actors against Civilians. †Null hypothesis is that coefficients are equal. The lockdown measures are jointly significant in Model 3 and 6.

C.4 Poisson Pseudo Maximum Likelihood

Table 19: **Economic Models (PPML, Clustered SE)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA
stringency index		-0.00477**			-0.00359		-0.00452*
		(0.00142)			(0.00254)		(0.00187)
lockdown [50] (shortterm)†			-0.330**			-0.315	
			(0.102)			(0.175)	
lockdown [50] (midterm)			-0.175			-0.0919	
			(0.105)			(0.148)	
lockdown [50] (longterm)†			-0.399**			-0.728**	
			(0.119)			(0.175)	
state violence (total week, lag)	0.000118**	0.000110**	0.000112**	0.000102**	9.46e-05**	0.000110**	0.000112**
	(1.50e-05)	(1.31e-05)	(1.63e-05)	(1.48e-05)	(1.50e-05)	(2.13e-05)	(1.34e-05)
deaths (week total, lag)	-7.27e-05	-1.99e-05	-1.77e-05	-0.000174	-0.000110	-5.02e-06	-4.05e-06
	(4.81e-05)	(2.34e-05)	(1.99e-05)	(0.000104)	(7.61e-05)	(6.76e-05)	(6.90e-05)
real GDP (ln qtr, lag)	-1.888**	-2.036**	-1.750**				-2.218**
	(0.579)	(0.527)	(0.563)				(0.579)
unemployment (qtr, lag)				0.00285	0.0225	0.0166	-0.0185
				(0.0273)	(0.0338)	(0.0341)	(0.0269)
constant	21.80**	23.59**	20.38**	0.688**	0.582*	0.664**	25.20**
	(6.548)	(5.970)	(6.384)	(0.214)	(0.229)	(0.224)	(6.374)
observations	42,660	42,660	42,660	35,490	35,490	35,490	30,311
log likelihood	-20306.511	-20158.86	-20091.568	-15328.55	-15276.938	-15057.9	-14598.555
Wald Test (Chi2)†			0.21			4.08	
prob >chi2			0.646			0.043	

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal. The lockdown measures are jointly significant in Model 3 and 6.

C.5 Zero-inflated Poisson

Table 20: **Economic Models (ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA	NSA
oxfstringindex		-0.00560*			-0.00627		-0.00645**
		(0.00247)			(0.00507)		(0.00221)
lockdown [50] (shortterm)†			-0.303			-0.335	
			(0.163)			(0.297)	
lockdown [50] (midterm)			-0.276			-0.233	
			(0.302)			(0.435)	
lockdown[50] (longterm)†			-0.833**			-1.484**	
			(0.219)			(0.296)	
state violence (total week, lag	0.000173**	0.000169**	0.000200**	0.000218**	0.000214**	0.000264**	0.000123**
	(3.53e-05)	(3.27e-05)	(4.12e-05)	(3.98e-05)	(3.96e-05)	(4.01e-05)	(1.63e-05)
deaths (week total, lag)	3.32e-06	4.11e-05*	3.23e-05	-0.000102	4.03e-05	0.000150	-4.66e-06
	(2.03e-05)	(1.83e-05)	(2.40e-05)	(0.000177)	(0.000227)	(0.000173)	(5.24e-05)
real GDP (ln qtr, lag)	-0.389**	-0.400**	-0.330*				-0.994**
	(0.120)	(0.117)	(0.152)				(0.102)
unemployment (qtr, lag				0.00712	0.0168	0.0131	0.0573**
				(0.00990)	(0.0117)	(0.0104)	(0.00947)
constant	5.116**	5.372**	4.579*	0.628**	0.639**	0.637**	11.40**
	(1.421)	(1.398)	(1.830)	(0.209)	(0.214)	(0.207)	(1.148)
observations	143,876	141,704	141,704	131,449	128,191	128,191	115,202
log likelihood	-38282.707	-38010.166	-37770.394	-30372.809	-30130.017	-29560.048	-26399.9
Wald Test (Chi2)†			3.94			10.18	
prob >chi2			0.05			0.00	

Note: *p≤0.05 and **p≤0.01. †Null hypothesis is that coefficients are equal. Inflation factor=polyarchy. The lockdown measures are jointly significant in Model 3 and 6.

D Logistical Pathway Models

D.1 Estimation Techniques Discussion

The logistical pathway analysis presented in the paper uses a FE Poisson regression with state-fixed effects. given the count nature of the outcome data (0-138 events per day). Wooldridge (2010) notes that ordinary least squares (OLS) regression is not preferred because $E(V_{ijt}|X)$ can be negative even when V_{ijt}, the count of the number of events, is nonnegative. I replicated the population analysis in the appendix with two other estimation techniques: the Poisson pseudo maximal likelihood (PPML) estimation with state fixed-effects and standard errors clustered by state-administrative districts and the zero-inflated Poisson (ZIP) models with standard errors clustered by state-administrative districts.

The FE Poisson and the Poisson pseudo maximal likelihood (PPML) estimation both control for factors that do not vary within states over time through the fixed effects. The latter also allows me to cluster the standard errors by administrative district. This ensures that all days within the same district are not treated as independent observations in the calculation of the standard errors. The clustered results are more conservative as a result. Both models exclude cases with no violent events in the analysis period, resulting in a cleaner comparison since lockdowns are unlikely to have any effect in states where nonstate actors are not active.

In the ZIP models, the clustered SEs, as in the PPML models, ensure that all days within the same district are not treated as independent observations in the calculation of the standard errors. Unlike the FE Poisson and FE PPML models, the ZIP models do not exclude countries that do not experience any nonstate actor violent events in the analysis period, allowing us to explore the effect of lockdowns in all states. Instead, it predicts the "excess zeros" (in this case, based on democracy/polyarchy (V-dem)). However, the assumption that these models make that the states with "excess zeros" have no probability of experiencing a violent event is untenable. The probability is likely low but not zero. Furthermore, I am also not interested in modeling the zeros. Since they do not exclude cases with no variation in the outcome of interest, the number of countries included in the analysis is greater than in the fixed effect models. I do not use zero-inflated Poisson mixed effects models, which allow for fixed effects in the logistic model predicting the zeros, because I predict the "excess zeros" in the logistic model based on polyarchy/democracy, which changes little, if at all, in most countries in the analysis period.

Wald Tests are used to test the joint significance of the interaction terms. Rejecting the null hypothesis (i.e., coefficients for the main effects and interaction terms are simultaneously equal to zero) indicates that there is a statistically significant interaction effect (Ramanathan, 2002, 156). I also examined the relationship of different values of the independent variables to different categories of the outcome variables because interaction effects may be significant for certain values but insignificant for others in non-linear models (Brambor, Clark and Golder, 2006).

For a discussion of why I do not use alternative models, such as FE negative binomial or zero-inflated Poisson mixed-effects models, see *Baseline Models: Estimation Techniques Discussion.*

D.2 Population Density-Poisson Regression

Table 21: **Population Density Interactions (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4
dependent variable	NSA	NSA	NSA	NSA
stringency index†	-0.00224**			
	(0.000135)			
stringency index*	-0.000648**			
population density†	(0.000122)			
lockdown†		-0.124**	-0.192**	-0.200**
		(0.00894)	(0.0100)	(0.0113)
lockdown*		-0.0558**	-0.0631**	-0.0454**
population density†		(0.00985)	(0.0118)	(0.0122)
population density†	-0.0421**	-0.0473**	-0.0481**	-0.0499**
	(0.00303)	(0.00257)	(0.00256)	(0.00256)
population	0.00442**	0.00445**	0.00443**	0.00441**
	(0.000359)	(0.000359)	(0.000359)	(0.000359)
size (km^2)	-1.74e-06**	-1.76e-06**	-1.75e-06**	-1.75e-06**
	(7.48e-08)	(7.50e-08)	(7.49e-08)	(7.48e-08)
state violence (total week, lag)	0.000817**	0.000819**	0.000803**	0.000814**
	(8.68e-06)	(8.70e-06)	(8.66e-06)	(8.57e-06)
deaths (week total, lag)	-4.14e-05**	-4.35e-05**	-3.90e-05**	-4.70e-05**
	(6.15e-06)	(6.21e-06)	(6.07e-06)	(6.32e-06)
entrance	-1.883**	-1.916**	-1.926**	-1.911**
	(0.0487)	(0.0487)	(0.0488)	(0.0489)
exit	-1.470**	-1.488**	-1.490**	-1.481**
	(0.0308)	(0.0308)	(0.0308)	(0.0308)
state-controlled district	1.881**	1.877**	1.876**	1.870**
	(0.0131)	(0.0131)	(0.0131)	(0.0131)
contested-district	-0.809**	-0.814**	-0.818**	-0.824**
	(0.0100)	(0.0100)	(0.0100)	(0.00999)
log likelihood	-258233.46	-258271.46	-258167.34	-258217.11
observations	2,510,892	2,510,892	2,510,892	2,510,892
state	62	62	62	62
Wald Test (Chi2)†	758.42	676.60	865.44	790.29
prob>chi2	0.00	0.00	0.00	0.00

Note: *p≤0.05 and **p≤0.01. †Wald Test of significance of the interaction effect. Lockdowns are defined by a 40%, 50%, and 60% cutpoints in Models 2, 3, and 4 respectively.

Table 22: **Population Density Interactions-Time (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4
dependent variable	NSA	NSA	NSA	NSA
stringency index†	-0.00249**		-0.00225**	
	(0.000159)		(0.000135)	
population density†	-0.0419**	-0.0481**	-0.0421**	-0.0481**
	(0.00303)	(0.00256)	(0.00303)	(0.00256)
stringency index*	-0.000656**		-0.000648**	
population density†	(0.000122)		(0.000122)	
lockdown [50] (shortterm)†		-0.185**		-0.193**
		(0.0102)		(0.0100)
lockdown [50] (shortterm)*		-0.0634**		-0.0631**
population density†		(0.0118)		(0.0118)
population	0.00442**	0.00443**	0.00442**	0.00443**
	(0.000359)	(0.000359)	(0.000359)	(0.000359)
size (km^2)	-1.74e-06**	-1.75e-06**	-1.74e-06**	-1.75e-06**
	(7.48e-08)	(7.49e-08)	(7.48e-08)	(7.49e-08)
state violence (total week, lag)	0.000816**	0.000804**	0.000816**	0.000802**
	(8.68e-06)	(8.69e-06)	(8.68e-06)	(8.66e-06)
deaths (week total, lag)	-4.17e-05**	-3.70e-05**	-4.11e-05**	-3.86e-05**
	(6.17e-06)	(6.04e-06)	(6.14e-06)	(6.06e-06)
entrance	-1.904**	-1.906**	-1.883**	-1.926**
	(0.0492)	(0.0492)	(0.0487)	(0.0488)
exit	-1.489**	-1.472**	-1.467**	-1.487**
	(0.0315)	(0.0313)	(0.0308)	(0.0308)
state-controlled district	1.878**	1.879**	1.881**	1.876**
	(0.0131)	(0.0131)	(0.0131)	(0.0131)
contested-district	-0.813**	-0.814**	-0.810**	-0.819**
	(0.0101)	(0.0101)	(0.0100)	(0.0100)
year	0.00879**	-0.00799**		
	(0.00295)	(0.00254)		
month			-0.00143	-0.00199*
			(0.000920)	(0.000920)
observations	2,510,892	2,510,892	2,510,892	2,510,892
states	62	62	62	62
log likelihood	-258229.03	-258162.38	-258232.26	-258165.01
Wald Test (Chi2)†	716.11	825.94	760.29	869.41
prob>chi2	0.00	0.00	0.00	0.00

Note: *p≤0.05 and **p≤0.01. †Wald Test of significance of the interaction effect.

Table 23: **Population Density Interactions-Additional Models (Poisson, FE)**

	Model 1	Model 2	Model 3
dependent variable	NSA	NSA	NSA
lockdown [50] (shortterm)	-0.1589†	-0.25317**	-0.18819**
	(0.0454)	(0.0935)	(0.08725)
lockdown [50]*	-0.07†		
population density	(0.04)		
population density	-0.045†**	0.9873†	-2.689†
	(0.033)	(3.67)	(2.4782)
GDP (ln, lag)		-1.979†**	
		(0.3094)	
unemployment (lag)			0.020207†
			(0.0250295)
GDP (ln, lag)*		-0.14249†	
population density		(0.2857233)	
unemployment (lag)*			0.0765983†
population density			(0.0935539)
population	0.0042**	-0.0015	0.1614276
	(0.0051)	(.00793)	(0.11043)
size (km^2)	-1.88e-06	-5.12e-07**	-7.11e-06
	(1.55e-06)	(3.06e-06)	(5.23e-06)
state violence (total week, lag)	0.0008**	0.0005782	0.0004747**
	(0.00018)	(0.0001712)	(0.000167)
deaths (week total, lag)	-0.00004**	-0.0000216	-0.000096**
	(0.00001)	(0.0000159)	(0.0000334)
entrance	-1.9210**	-3.189915**	-3.252697**
	(0.531)	(0.2504)	(0.318299)
state-controlled district	1.726**	-4.202401**	-2.675503*
	(0.3127)	(1.311276)	(1.084179)
contested-district	-1.060**	-9.67242**	-8.375906**
	(0.199)	(1.378698)	(1.071509)
log likelihood	-260049.83	-50134.458	-35726.106
observations	5,373,477	2,933,986	2,719,459
districts	2,953	1,674	1,603
Wald Test (Chi2)†	19.92	2.34	7.03
prob>chi2	0.00	0.311	0.07

Note: *p≤0.05 and **p≤0.01. †Wald Test of significance of the interaction effect. Lockdowns are 50%. In Model 1, one can reject the hypothesis that the coefficients for the interaction terms between lockdowns and population density are simultaneously equal to zero, indicating the interaction effect is significant. In Model 2 and Model 3 respectively, one cannot reject the hypothesis that the interaction terms between population density and GDP and between population density and unemployment are simultaneously equal to zero, indicating the interaction effects are not significant.

D.3 Population Density-Poisson Pseudo Maximum Likelihood

Table 24: **Population Density Interactions (PPML FE and Clustered SE)**

	Model 1	Model 2	Model 3	Model 4
dependent variable	NSA	NSA	NSA	NSA
stringency index†	-0.00224*			
	(0.00106)			
stringency index*	-0.000648			
population density†	(0.000588)			
population density†	-0.0421	-0.0473	-0.0481	-0.0499
	(0.0287)	(0.0314)	(0.0333)	(0.0339)
lockdown†		-0.124*	-0.192**	-0.200**
		(0.0509)	(0.0479)	(0.0524)
lockdown*		-0.0558	-0.0631	-0.0454
population density†		(0.0582)	(0.0406)	(0.0394)
population	0.00442	0.00445	0.00443	0.00441
	(0.00510)	(0.00509)	(0.00510)	(0.00509)
size (km^2)	-1.74e-06	-1.76e-06	-1.75e-06	-1.75e-06
	(1.53e-06)	(1.53e-06)	(1.53e-06)	(1.53e-06)
state violence (total week, lag)	0.000817**	0.000819**	0.000803**	0.000814**
	(0.000186)	(0.000187)	(0.000186)	(0.000182)
deaths (week total, lag)	-4.14e-05**	-4.35e-05**	-3.90e-05**	-4.70e-05**
	(1.42e-05)	(1.25e-05)	(1.17e-05)	(1.41e-05)
entrance	-1.883**	-1.916**	-1.926**	-1.911**
	(0.543)	(0.549)	(0.537)	(0.537)
exit	-1.470**	-1.488**	-1.490**	-1.481**
	(0.320)	(0.322)	(0.321)	(0.318)
state-controlled district	1.881**	1.877**	1.876**	1.870**
	(0.322)	(0.322)	(0.322)	(0.321)
contested-district	-0.809**	-0.814**	-0.818**	-0.824**
	(0.240)	(0.239)	(0.239)	(0.237)
constant	-2.155**	-2.168**	-2.162**	-2.162**
	(0.322)	(0.321)	(0.321)	(0.320)
observations	2,510,892	2,510,892	2,510,892	2,510,892
log likeliood	-258421.42	-258459.42	-258355.3	-258405.07
states	62	62	62	62
Wald Test (Chi2)†	7.32	9.62	24.10	20.03
prob>chi2	0.06	0.02	0.00	0.00

Note: *p≤0.05 and **p≤0.01. †Wald Test of significance of the interaction effect. Lockdowns are defined by a 40%, 50%, and 60% cutpoints in Models 2, 3, and 4 respectively.

D.4 Population Density-Zero-inflated Poisson

Table 25: **Population Density Interactions (ZIP and Clustered SE)**

	Model 1	Model 2	Model 3	Model 4
dependent variable	NSA	NSA	NSA	NSA
stringency index†	-0.00431**			
	(0.00117)			
stringency index*	-0.000818			
population density†	(0.00101)			
lockdown		-0.301**	-0.293**	-0.243**
		(0.0834)	(0.0930)	(0.0806)
lockdown*†		-0.0648	-0.111	-0.106
population density†		(0.0862)	(0.106)	(0.129)
population density†	-0.0738**	-0.0818**	-0.0809**	-0.0822**
	(0.0276)	(0.0282)	(0.0294)	(0.0298)
population	0.0164**	0.0164**	0.0167**	0.0167**
	(0.00486)	(0.00494)	(0.00507)	(0.00503)
size (km^2)	-1.13e-06	-1.11e-06	-1.17e-06	-1.17e-06
	(8.05e-07)	(7.97e-07)	(8.27e-07)	(8.32e-07)
state violence (total week, lag)	0.000738**	0.000753**	0.000733**	0.000738**
	(5.73e-05)	(5.90e-05)	(5.54e-05)	(5.62e-05)
deaths (week total, lag)	-2.09e-05	-1.41e-05	-2.85e-05	-4.62e-05
	(6.37e-05)	(6.05e-05)	(6.10e-05)	(6.69e-05)
entrance	-1.205**	-1.174**	-1.300**	-1.290**
	(0.255)	(0.256)	(0.255)	(0.258)
exit	-1.847**	-1.871**	-1.853**	-1.831**
	(0.277)	(0.275)	(0.275)	(0.274)
state-controlled district	4.078**	4.050**	4.049**	4.056**
	(0.235)	(0.235)	(0.234)	(0.234)
contested-district	0.0282	0.00820	0.00208	-0.00404
	(0.181)	(0.179)	(0.180)	(0.180)
constant	-3.617**	-3.610**	-3.622**	-3.641**
	(0.261)	(0.260)	(0.259)	(0.259)
observations	5,373,477	5,373,477	5,373,477	5,373,477
log likelihood	-297478.49	-297365.93	-297476.41	-297708.28
states	169	169	169	169
Wald Test (Chi2)†	20.32	21.40	18.82	18.05
prob>chi2	0.00	0.00	0.00	0.00

Note: *p≤0.05 and **p≤0.01. †Wald Test of significance of the interaction effect Inflation factor=polyarchy. Lockdowns are defined by 40%, 50%, and 60% cutpoints in Models 2, 3, and 4 respectively.

D.5 Base Districts-OLS and Logit Models

Table 26: **Base District Model Interactions (OLS FE, Logit Clustered SE)**

	Model 1	Model 2	Model 3
dependent variable	NSA (% total)	NSA (% total)	NSA (% total)
lockdown (travel restrictions)†	-0.0113	-0.0383**	-0.0976
	(0.00661)	(0.0137)	(0.0866)
lockdown (travel restrictions)*base†	1.014**	0.966**	0.108
	(0.0437)	(0.0644)	(0.274)
base†	5.916**	5.754**	1.663**
	(0.0191)	(0.0281)	(0.269)
population density	-0.0360**	-0.0577**	-0.0807
	(0.00171)	(0.00316)	(0.0487)
population	-0.00521**	-0.00374**	0.0156**
	(0.000324)	(0.000549)	(0.00366)
size (km^2)	-1.47e-07**	-4.02e-07**	-1.60e-06
	(1.85e-08)	(3.94e-08)	(8.31e-07)
state violence (total week, lag)	0.0322**	0.0313**	0.00341
	(0.000113)	(0.000165)	(0.00280)
deaths (week total, lag)	-1.96e-06	-4.68e-06	-0.000178
	(2.08e-06)	(4.89e-06)	(0.000104)
entrance	-1.504**	-1.692**	-2.515*
	(0.0472)	(0.0690)	(1.046)
exit	1.364**	1.289**	-1.114**
	(0.0495)	(0.0738)	(0.311)
state-controlled district	2.510**	4.019**	3.929**
	(0.0259)	(0.0444)	(0.255)
contested-district	-2.556**	-2.602**	-0.0965
	(0.0279)	(0.0457)	(0.250)
constant	2.714**	2.868**	-5.596**
	(0.0281)	(0.0463)	(0.287)
observations	5,379,897	2,510,892	5,379,897
R-squared	0.063	0.068	0.3426
states	169	62	62
F Test†	40749.39	17826.96	39.58
prob > F	0.00	0.00	0.00

Note: *p≤0.05 and **p≤0.01. † Wald Test of the significance of the interaction effect. NSA (% total)=number of nonstate actor-initiated violent events in a district as a percentage of all events in a state. Model 1 and Model 2 are OLS models with state-fixed effects. Model 3 is limited to the same population as Table 22 Model 3 (for the sake of comparison). Model 3 is estimated with a logit model with standard errors clustered by district.

Logistical arguments predict that the percentage of violent events that occur in base districts should be greater when internal travel restrictions are in place because these restrictions make it more difficult for nonstate actors to move within states without detection (Brancati, Birnir and Idlbi, 2023). The results support logistical arguments. Base districts are measured with an indicator coded 1 if a district had the largest percentage of violent events committed by all groups in a state in the six months prior to the pandemic being declared, and 0 otherwise.

D.6 Population Density Interactions-No Civilians

Table 27: **Population Density Interactions-No Civilians (Poisson, PPML, ZIP)**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
dependent variable	NSA (no civilians)	NSA (no civilians)	NSA (no civilians)	NSA (no civilians)	NSA (no civilians)	NSA (no civilians)
stringency index†	-0.00367**		-0.00367**		-0.00494**	
	(0.000153)		(0.00125)		(0.00146)	
stringency index*	-0.000302*		-0.000302		-0.000554	
population density†	(0.000151)		(0.000652)		(0.00116)	
population density†	-0.0629**	-0.0647**	-0.0629	-0.0647	-0.108*	-0.112*
	(0.00407)	(0.00338)	(0.0416)	(0.0464)	(0.0435)	(0.0457)
lockdown[50]		-0.254**		-0.254**		-0.260*
		(0.0114)		(0.0538)		(0.110)
lockdown[50]*		-0.0430**		-0.0430		-0.107
population density†		(0.0139)		(0.0405)		(0.112)
population	0.00380**	0.00383**	0.00380	0.00383	0.0158**	0.0161**
	(0.000474)	(0.000474)	(0.00571)	(0.00571)	(0.00415)	(0.00422)
size (km^2)	-1.87e-06**	-1.89e-06**	-1.87e-06	-1.89e-06	-1.92e-06*	-1.98e-06*
	(9.32e-08)	(9.33e-08)	(1.83e-06)	(1.83e-06)	(9.58e-07)	(9.85e-07)
state violence (total week, lag)	0.000820**	0.000802**	0.000820**	0.000802**	0.000750**	0.000743**
	(8.91e-06)	(8.86e-06)	(0.000204)	(0.000201)	(6.12e-05)	(5.88e-05)
deaths (week total, lag)	-4.08e-05**	-4.92e-05**	-4.08e-05*	-4.92e-05**	-9.07e-06	-2.83e-05
	(7.68e-06)	(7.89e-06)	(1.94e-05)	(1.68e-05)	(6.36e-05)	(6.14e-05)
entrance	-2.350**	-2.399**	-2.350**	-2.399**	-1.544**	-1.637**
	(0.0630)	(0.0630)	(0.405)	(0.399)	(0.281)	(0.302)
exit	-1.562**	-1.586**	-1.562**	-1.586**	-1.858**	-1.853**
	(0.0339)	(0.0339)	(0.349)	(0.348)	(0.289)	(0.287)
state-controlled district	1.897**	1.889**	1.897**	1.889**	4.286**	4.258**
	(0.0151)	(0.0150)	(0.359)	(0.359)	(0.251)	(0.250)
contested-district	-0.847**	-0.862**	-0.847**	-0.862**	-0.0283	-0.0628
	(0.0112)	(0.0111)	(0.259)	(0.255)	(0.202)	(0.199)
constant			-2.290**	-2.306**	-3.822**	-3.832**
			(0.351)	(0.350)	(0.271)	(0.270)
observations	2,375,217	2,375,217	2,375,217	2,375,217	5,373,477	5,373,477
log likelihood	-208774.87	-208794.67	-208940.55	-208960.35	-235226.32	-235389.86
states	57	57	57	57	169	169
Wald Test (Chi2)†	1036.48	976.23	10.54	31.13	17.51	13.10
prob>chi2	0.00	0.00	0.01	0.00	0.00	0.00

Note: *p≤0.05 and **p≤0.01. † Wald Test of significance of the interaction effect. Model 1 and Model 2 are FE Poisson models with state-fixed effects. Model 3 and 4 FE PPML models with state-fixed effects and robust standard errors. Model 5 and 6 are. ZIP models with standard errors clustered by district.

E Identification Models

E.1 Estimation Techniques Discussion

To identify the causal effect of lockdown on nonstate actor violence, I used multiple approaches. I used instrumental variable regression with state-fixed effects, which produces consistent results in the case of unobserved heterogeneity, simultaneity, and dynamic endogeneity. Gutiérrez-Romero (2022) also used IV regression. I use different instruments than her that are appropriate for my analysis with different predictor and outcome variables. For it, I devised two instruments: pandemic date and border deaths. I expect both instruments to be strongly associated with lockdowns and not to be strongly associated with nonstate actor violence except via lockdowns. The first-stage regression models confirm that the instruments are strongly associated with lockdowns. Sargan-Hansen tests indicate that one cannot reject the null hypothesis that the instruments are uncorrelated with the error term.

Pandemic date should be strongly associated with lockdowns and not nonstate actor violence since most states in the world adopted lockdowns within one month of WHO declaring COVID-19 a pandemic regardless of the intensity of nonstate actor violence they experienced. WHO declared COVID-19 a pandemic to encourage states to adopt mitigation strategies (Ghebreyesus, 2020). Its decision was not explicitly related to nonstate actor violence. At the time, four states accounted for 90% of COVID-19 cases, none of which experienced nonstate violence in the analysis period. The monotonicity assumption is unlikely to be violated. Monotonicity requires that the proposed instrument only affects the exposure in one direction in all individuals. The monotonicity assumption could be violated if nonstate actors declared ceasefires and fewer nonstate actors declared ceasefires since the date WHO declared COVID-19 a pandemic. Less than a handful of nonstate actors declared, and even fewer actually implemented, ceasefires despite the Secretary-General's call for a global ceasefire (See supplementary codebook).

Border deaths should be strongly associated with lockdowns since COVID-19 can spread through travel. They are unlikely to be strongly related to nonstate actor violence in bordering states. Were it the case that border deaths increased nonstate actor violence in states and spilled over to other states, they could have independently caused other states to have imposed state-level lockdowns in response to increased nonstate actor violence. However, upon investigation of each of the states where violence occurred in the analysis period, there is no evidence to this effect. Besides, in this case, I'd expect borderdeaths to affect lockdowns imposed at the subnational level, not national-level lockdowns studies here. Further, COVID-19 deaths are not consistently related to nonstate actor violence, when controlling for lockdowns within states, let alone in other states. I calculated border deaths using *GeoDataSource* to identify bordering states and *WHO COVID-19 Dashboard* to determine death tolls.

I also analyzed a subset of the data (period ending the 30, 60 and 90 days of the pandemic) for which the case for exogeneity is strongest (as indicated above) using FE Poisson with state-fixed effects and difference-in-difference (DiD). Exogeneity claims are strongest for this period since only 8 countries did not have lockdowns [50] in the first 30 days: Belarus (none); Burundi (violence); Chad (violence); Japan (none); Nicaragua (none); Taiwan (none); Tajikistan (violence); and Tanzania (none). Whether they experienced violence or not in the analysis period is indicated in parentheses. Chad, Tajikistan, and Tanzania adopted them within 60 days. No additional country adopted them within 90 days. Very few countries lifted lockdowns as well. In it, I find that the lockdowns significantly reduce nonstate actor violence.

Except for the subsetted analysis, I do not take the DiD approach that Berman et al. (2022) and Mehrl and Thurner (2021) use in combination with their PPML and/or Poisson models respectively. The technique compares changes in the number of violent events over time between treated and untreated cases. Instead of

fixed effects, this approach deals with unobserved time-invariant heterogeneity by subtracting the number of violent events for the same states between two time periods. This approach is not appropriate for the full sample because once treated, treated cases remain treated for the entire analysis period. In this analysis, states lifted and reimposed lockdowns and the effect of lockdowns after they have been lifted is of theoretical interest. This method also requires parallel trends (i.e., in the absence of treatment, the difference between the treatment and control is constant over time).

In the subsetted analysis, I use a standard DiD approach rather than a staggered DiD approach (Callaway and Sant'Anna, 2021; Sun and Abraham, 2021). Staggered difference-in-difference models are used to estimate the effect of a treatment on a given outcome when the treatment is adopted at different times by units, as it was for lockdowns in states/countries. The approach also allows "not-yet treated units" as well as "never-treated" units (of which there are only a few) to be used as controls.

The approach, however, requires that there be at least 5 units (in this case states/countries) that are either never treated or treated at the same time (in this case on the same day). As Callaway and Sant'Anna write "asymptotic results are unlikely to provide good approximations to the sampling distribution of group-time average treatment effects when the number of units in a group is small" (Callaway and Sant'Anna, 2024).

In the data used in the paper, there are 21 (out of 36) day-groups for which there are fewer than 5 states that are treated on the same day. If I aggregate up to weeks, there are 11 (out of a total 15) week-groups that do not meet this condition. If I aggregate to months, there are 4 (out of 7) month groups that do not meet this condition. Since the difference-in-difference method (staggered or not) is only applied to the subsample population analysis (first 30, 60, 90 days of the pandemic), aggregating to the month level is not particularly useful.

To circumvent this problem, the authors suggest using a function to take group-time average treatment effects and aggregate them into a smaller number of parameters. One of the options that they offer to do this, which makes the most sense in the context of this study, computes average effects across different lengths of exposure to the treatment ("dynamic") is similar to the event study, according to the authors. Therefore, I utilize the event study approach instead. The event study approach of Borusyak, Jaravel and Spiess (2024) is a staggered difference-in-difference design that allows for heterogeneous causal effects. The parallel trends assumption that they make, like all DiD models, appears to hold.

I also explore counterfactual estimation. Unlike traditional difference-in-difference approaches, it allows for staggered treatments and treatment reversals. It calculates the average treatment effect on the treated by imputing counterfactual outcomes for treated observations (Liu, Wang and Xu, 2024). The approach can only be used on the dichotomous treatment (not the stringency index). For this, I used a matrix completion (MC) estimator. It relaxes the parallel assumption of difference-in-difference estimators. It is a generalization of the interactive fixed effects (IFE) counterfactual estimator, which relaxes the strict exogeneity assumption of the fixed effects IFE estimator, and does not require fixing the number of unobserved factors and using all observed data to estimate unobserved factors. The results are consistent with the results in the paper, showing a negative relationship and, in many cases, a significant relationship between lockdowns and nonstate actor violence.

However, this approach does not perform well when the number of states is small and only allows for limited carryover effects (i.e., limited periods over which the effect of lockdowns can persist once they have been removed). Specifically, this estimator does not do well when the number of units is $<$ less than 40) and so I do not use the estimator in the economic models (24 or fewer states). The model seemingly performs better, on the district-level analysis (1388 districts), than the state-level analysis (62 units) for this reason. The

identifying assumptions are that there are no pretrends or carryover effects (i.e., past treatments directly affect current outcomes). Theoretically, we expect and observe carry-over effects. (For the pretrend tests, a larger placebo p-value and a smaller placebo TOST (equivalence) p-value are preferred.) According to the authors, under staggered adoption, potential carryover effects may not be a concern for researchers who care about the overall cumulative effects of the treatment over an extended time period. In this analysis, the carry-over effects are of theoretical interest.

I did not use alternative methods for causal inference, such as matching, because matching is conditional on observables. The assumption that all of the factors that determine selection into treatment have been measured in the model is untenable. Public opinion, for example, against lockdowns has been shown to affect the duration of lockdowns, but public opinion data for all of states in the analysis does not exist. Heckman selection models present a similar problem.

E.2 Instrumental Variable Regression

Table 28: **IV Models-Baseline Models**

	Model 1	Model 2	Model 3	Model 4
dependent variable	NSA	NSA	NSA	NSA
Second-stage Results	(full pop)	(full pop)	(baseline pop)	(baseline pop)
lockdown [50]	-0.0359**		-0.103**	
	(0.0117)		(0.0320)	
stringency index		-0.000295†		-0.000861†
		(0.00018)		(0.00052)
entrance	-2.546**	-2.536**	-2.557**	-2.529**
	(0.0415)	(0.0415)	(0.0673)	(0.0675)
exit	-9.059**	-9.053**	-9.078**	-9.062**
	(0.0544)	(0.0544)	(0.0884)	(0.0882)
state violence (total week, lag)	0.00146**	0.00146**	0.00145**	0.00145**
	(8.66e-06)	(8.68e-06)	(1.41e-05)	(1.42e-05)
deaths (week total, lag)	-4.53e-06	-6.05e-06*	-9.51e-06	-1.41e-05
	(2.89e-06)	(2.99e-06)	(7.71e-06)	(8.16e-06)
constant	0.318**	0.317**	0.836**	0.835**
	(0.00337)	(0.00488)	(0.00911)	(0.0140)
observations	294,875	294,875	112,556	112,556
states	169	169	62	62
Sargan-Hansen Statistic	0.556	0.545	0.528	0.533
First-stage Results (Abbreviated)				
dependent variable	lockdown [50]	stringency index	lockdown [50]	stringency index
pandemic distance	-0.0004**	-0.0191**	-0.0004**	-0.0174**
	(2.45e-06)	(.00017)	(3.92e-06)	(0.00027)
border deaths	0.0001**	.00487**	000056**	0.00448**
	(3.39e-07)	(0.00002)	(5.39e-07)	(0.00004)
constant	0.392**	29.81**	0.383**	30.12**
	(0.0013)	(0.092)	(0.002)	(0.15)
+ controls	-	-	-	-
F-Test	187.05**	164.37**	178.08**	110.91**
Reduced Form (Abbreviated)				
dependent variable	NSA	NSA	NSA	NSA
border deaths	-6.86e-06**	-6.86e-06**	-0.00002**	-0.00002**
	(1.07e-06)	(1.07e-06)	(2.94e-06)	(2.94e-06)
pandemic distance	-0.00008**	-0.00008**	-0.0002**	-0.0002**
	(8.05e-06)	(8.05e-06)	(0.00002)	(0.00002)
constant	0.373**	0.373**	1.0188**	1.0188**
	(0.004)	(0.004)	(0.0121)	(0.0121)

Note: †$p \leq 0.10$, *$p \leq 0.05$ and **$p \leq 0.01$. The controls include: state violence (total week, lag), deaths (week total, lag), entrance and exit. The Sargen-Hansen null is that all overidentifying restrictions are valid. The statistic is insignificant, indicating that the null cannot be rejected. The F-statistic null is that instruments are not correlated with the endogenous explanatory variable. Rejecting it, indicates they are related to it. The F-test tests indicate that the instruments are strongly related to lockdowns.

Table 29: **Placebo Test**

	Model 1	Model 2	Model 3	Model 4
dependent variable	Asia (placebo)	Asia-Oceania (placebo)	NSA	NSA
border deaths	-0.00001	-0.00003		
	(0.00003)	(0.00004)		
pandemic distance	-6.09e-06	-7.54e-06		
	(0.000011)	(0.00001)		
Asia			8.237**	
			(0.707)	
Asia-Oceania				20.78
				(603.68)
Africa			7.014**	19.66
			(0.707)	(603.68)
Europe			6.383**	19.031
			(0.707)	(603.68)
Latin America			5.114**	17.76
			(0 .7076)	(603.68)
North America			-12.497	
			(578.132)	
constant	-0.9293**	-0.7674**	-8.4205	-21.0699
	(0.1745)	(0.1698)	(0.707)	(603.68)
loglikelihood	-175045.65	-182790.37	-303076.46	-310227.9
observations	294,875	294,875	294,875	294,875

Note: *p≤0.05 and **p≤0.01. The instruments are not related to the pre-treatment placebos – Asia and Asia and Oceania. The lack of significance is consistent with a valid instrument. These variables are pretreament because COVID-19 originated in China and proximity to Asia would increase the likelihood of having a lockdown.

Table 30: **Covariate Balance Tests**

covariate	lockdown [50] (treatment)	border deaths (instrument)	pandemic distance (instrument)
	ASD	ASD	ASD
state violence (total week, lag)	0.08	0.03	0.004
deaths (week total, lag)	0.35	0.34	0.04
entrance	0.06	0.11	0.07
exit	0.07	0.09	0.09

Note: An absolute standardized difference (ASD) of 0.10 or more indicates that covariates are imbalanced between groups (Austin, 2009).
An imbalance in measured confounders across categories of the instrumental variable (IV) makes the assumption that the instrument is not associated with unmeasured confounders after conditioning on measured confounders less plausible. If the measured covariates are a proxy of the unmeasured confounders, an association between the measured confounders and the IV suggests that there will be an association between the IV and unmeasured confounders. Instruments are dichotomized at their medians to perform the tests because they are continuous.

Table 31: **IV Models-Additional Controls**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA
Second-stage Results						
stringency index		-2.45e-05**		-0.00112**		-0.00103**
		(8.06e-06)		(0.000109)		(0.000123)
lockdown [50]	-0.00272**		-0.0759**		-0.0478**	
	(0.000512)		(0.00752)		(0.00820)	
state violence (total week, lag)	0.00266**	0.00266**	0.000825**	0.000825**	0.000829**	0.000828**
	(4.49e-06)	(4.49e-06)	(6.58e-06)	(6.57e-06)	(6.43e-06)	(6.42e-06)
deaths (week total, lag)	-4.42e-08	-1.20e-07	-4.71e-06**	-3.86e-06**	-2.12e-06	9.56e-07
	(9.23e-08)	(9.68e-08)	(1.43e-06)	(1.47e-06)	(1.60e-06)	(1.67e-06)
GDP (ln, lag)			-0.483**	-0.454**		
			(0.0194)	(0.0184)		
unemployment (lag)					0.00226	0.00409**
					(0.00127)	(0.00128)
entrance	-0.156**	-0.155**				
	(0.00189)	(0.00188)				
exit	-0.373**	-0.373**				
	(0.00198)	(0.00198)				
population density	-0.00278**	-0.00278**				
	(6.81e-05)	(6.81e-05)				
population	-7.99e-06	-7.98e-06				
	(1.29e-05)	(1.29e-05)				
size (km^2)	-4.61e-09**	-4.61e-09**				
	(7.37e-10)	(7.37e-10)				
state-controlled district	0.119**	0.119**				
	(0.00103)	(0.00103)				
contested-district	-0.119**	-0.118**				
	(0.00111)	(0.00111)				
constant	0.131**	0.131**	5.471**	5.156**	0.0825**	0.0825**
	(0.00113)	(0.00113)	(0.216)	(0.204)	(0.00850)	(0.00822)
observations	5,373,477	5,373,477	141,704	141,704	128,191	128,191
states	169	169	84	84	77	77
Sargan-Hansen Statistic	1.139	1.054	0.513	0.043	2.561	3.518
First-stage Results (Abbreviated)						
dependent variable	lockdown [50]	stringency index	lockdown [50]	stringency index	lockdown [50]	stringency index
border deaths	.000062**	0.00486**	.000058**	0.00495**	0.0000506**	0.004414**
	(7.74e-08)	(5.25e-06)	(4.29e-07)	(0.000028)	(4.44e-07)	(.000029)
pandemic distance	-0.00044**	-0.018319**	-0.000465**	-0.0211983**	-0.0004693**	-0.020977**
	(5.83e-07)	(.0000396)	(3.58e-06)	(0.0002373)	(3.65e-06)	(0.000241)
constant	0.4064**	28.1439**	8.0506**	355.845**	0.000586	2.59754**
	(0.00198)	(0.13436)	(0.14072)	(9.336)	(0.0061521)	(0.4064829)
+ controls	-	-	-	-	-	-
F-Test	3490.43**	2917.76**	215.17**	188.16**	234.09**	242.09**
Reduced Form (Abbreviated)						
dependent variable	NSA	NSA	NSA	NSA	NSA	NSA
border deaths	-3.43e-07**	-3.43e-07**	-6.86e-06**	-6.86e-06**	-6.86e-06**	-6.86e-06**
	(4.23e-08)	(4.23e-08)	(1.07e-06)	(1.07e-06)	(1.07e-06)	(1.07e-06)
pandemic distance	-4.68e-06**	-4.68e-06**	-0.000085**	-0.000085**	-0.000085**	-0.000085**
	(3.35e-07)	(3.53e-07)	(8.05e-06)	(8.05e-06)	(8.05e-06)	(8.05e-06)
constant	0.02066	.02066	0.3734	0.37339	0.3734	0.3734
	(0.00019)	(0.00019)	(0.0044)	(0.0044)	(0.0044)	(0.0044)

Note: *p≤0.05 and **p≤0.01. Entrance and exit dropped to few values. The Sargen-Hansen null is that all overidentifying restrictions are valid. The statistic is insignificant, indicating that the null cannot be rejected. The F-statistic null is that instruments are not correlated with the endogenous explanatory variable. Rejecting it, indicates they are related to it. The F-test tests indicate that the instruments are strongly related to lockdowns

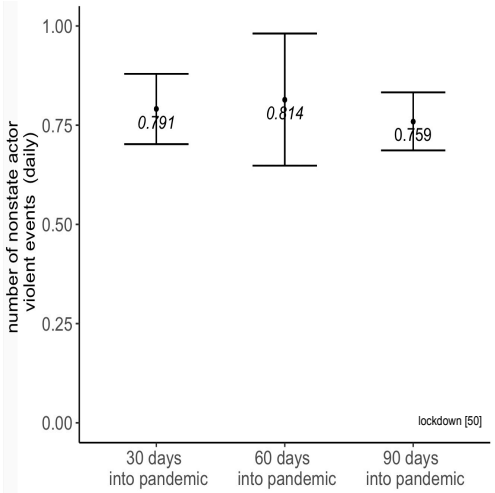
E.3 Subpopulation Analysis

Table 32: **Subpopulation Analysis (Poisson, FE)**

dependent variable	NSA	NSA	NSA	NSA
	Model 1	Model 2	Model 3	Model 4
	pandemic, first 30 days	pandemic, first 60 days	pandemic, first 90 days	2000-onwards
lockdown [50]	-0.196**	-0.262**	-0.291**	-0.176**
	(0.0594)	(0.0496)	(0.0471)	(0.00983)
state violence	-0.000201*	2.47e-05	8.97e-05**	9.06e-05**
(total week, lag)	(8.37e-05)	(5.39e-05)	(3.04e-05)	(2.14e-06)
deaths	-0.000406	0.000248	7.10e-06	-5.15e-05**
(total week, lag)	(0.00145)	(0.000288)	(0.000183)	(6.51e-06)
entrance				-1.596**
				(0.0474)
exit				-1.775**
				(0.0308)
observations	840	1,860	3,060	112,556
states	28	31	34	62
log likelihood	-993.24972	-2100.0787	-3203.9914	-74860.788

Note: §p≤0.10. *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors.

Figure 3: Subpopulation FE Poisson Analysis



Note: Figure depicts the predicted number of violent events initiated daily by nonstate actors at the state-level from based on the Models 1-3 in Table 32 where the fixed effect is zero and baseline controls (i.e., COVID-19 deaths (total week, lag) and state-initiated violent events (total week, lag)) are set at their means. Exit and entrance are not included (no variation). Solid bars represent 95% confidence intervals. N= 840 (30 days), N=1,860 (60 days), N=3,060 (90 days).

Table 33: **Subpopulation Analysis-Alternative Lockdown Measure (Poisson, FE)**

	Model 1	Model 2	Model 3	Model 4
dependent variable	NSA	NSA	NSA	NSA
	pandemic, first 30 days	pandemic, first 60 days	pandemic, first 90 days	2000-onwards
stringency index	-0.000321	-0.00290**	-0.00372**	-0.00186**
	(0.00132)	(0.000968)	(0.000904)	(0.000135)
state violence	-0.000280**	-1.62e-06	8.38e-05**	9.12e-05**
(total week, lag)	(8.37e-05)	(5.34e-05)	(3.03e-05)	(2.17e-06)
deaths	-0.000685	0.000217	-3.12e-05	-5.56e-05**
(total week, lag)	(0.00149)	(0.000287)	(0.000184)	(6.67e-06)
entrance				-1.557**
				(0.0474)
exit				-1.750**
				(0.0307)
observations	840	1,860	3,060	112,556
states	28	31	34	62
log likelihood	-998.58435	-2108.9879	-3213.7709	-74929.789

Note: §p≤0.10. *p≤0.05 and **p≤0.01. NSA=number of violent events initiated by nonstate actors.

Table 34: **Nonstate Actor Violent Events (DiD)**

	lockdowns [50]
30 days into pandemic	ATET
Model 1 (no controls)	-0.112** (0.057)
Model 2 (baseline controls)	-0.150* (0.088)
60 days into pandemic	lockdowns [50]
Model 3 (no controls)	-0.106* (0.056)
Model 4 (baseline controls)	-0.125* (0.075)
90 days into pandemic	lockdowns [50]
Model 5 (no controls)	-0.118* (0.066)
Model 6 (baseline controls)	-0.109* (0.063)

Parallel Trends Test	NSA
lockdown [50]	0.03
	(0.04)
lockdown [50]*time (days)	-0.0002**
	(0.00004)
time (days)	-0.0001**
	(7.21e-06)
constant	0.43
	(0.01)
N	298751

Note: *p≤0.10. **p≤0.05 and ***p≤0.01. The dependent variable is NSA=number of violent events initiated by nonstate actors.ATET=average treatment effect on the treated. Parallel Trends: The significance of the interaction terms suggests that the trends are not equal.

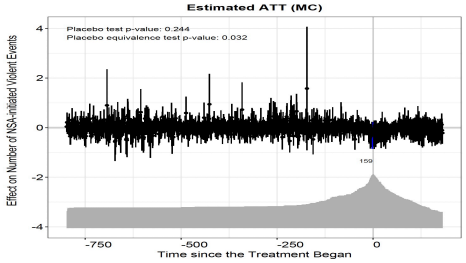
Table 35: **Nonstate Actor Violent Events (Event Study)**

		lockdowns [50]		
30 days into pandemic	ACETU	estimate	N	switches
Model 1 (no controls)	ACETU	-0.15* (0.07)	2177	152
Placebo Test		-0.02 (.10)		
Model 2 (baseline controls)	ACETU	-0.15* (0.07)	2142	151
Placebo Test		-0.02 (0.10)		
60 days into pandemic		estimate	N	switches
Model 3 (no controls)	ACETU	-0.15* (0.07)	2198	155
Placebo Test		-0.02 (0.09)		
Model 4 (baseline controls)	ACETU	-0.15* (0.07)	2160	154
Placebo Test		-0.02 (0.10)		
90 days into pandemic		estimate	N	switches
Model 5 (no controls)	ACETU	-0.15* (0.07)	2198	155
Placebo Test		-0.02 (0.09)		
Model 6 (baseline controls)	ACETU	-0.15* (0.07)	2160	154
Placebo Test		-0.02 (0.10)		

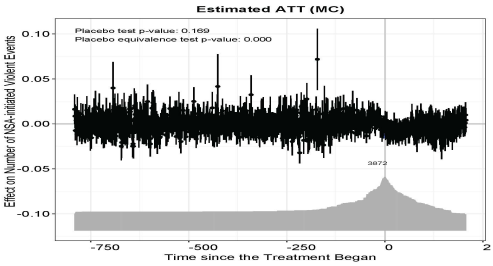
Note: *p≤0.05 and **p≤0.01. The dependent variable is NSA=number of violent events initiated by nonstate actors. ACETU=Average cumulative (total) effect per treatment unit. The placebo test: the null hypothesis is that difference between the treatment and control is zero before treatment. Failing to reject the null as above suggests that the pre-trends are parallel.

E.4 Matrix Completion (MC) Method

Table 36: **Matrix Completion (MC) Method**



(a) state-level analysis (62 states). Model includes: lockdowns [50] (treatment), state actor violence (total week, lag), COVID-19 deaths (total week, lag), exit, and entrance. ATT (Units Equally Weighted): -0.22 (0.16); (Observations Equally Weighted): -0.059 (0.09).



(b) district-level analysis (1388 districts): Model includes: lockdowns [50] (treatment), state actor violence (total week, lag), COVID-19 deaths (total week, lag), exit, and entrance and time-vary district controls (i.e., state-controlled territory and contested territory). Unit of analysis state-administrative district. ATT (Units Equally Weighted) -0.01** (0.002); ATT (Observations Equally Weighted) -0.004 (0.003.)

A larger placebo p-value and a smaller placebo TOST (equivalence test) p-value are desirable. The state-level has a larger placebo p-value, but the district level has a smaller TOST p-value.

References

Allison, Paul D. and Richard P. Waterman. 2002. "Fixed Effects Negative Binomial Regression." *Sociological Methodology* 32:247–265.

Austin, Peter C. 2009. "Balance Diagnostics for Comparing the Distribution of Baseline Covariates Between Treatment Groups in Propensity-score Matched Samples." *Statistics in Medicine* 28(25):3083–3107.

Berman, Nicolas, Mathieu Couttenier, Nathalie Monnet and Rohit Ticku. 2022. "Shutdown Policies and Conflict Worldwide." *Journal of Comparative Economics* 50:240–255.

Borusyak, Kirill, Xavier Jaravel and Jann Spiess. 2024. "Revisiting Event-Study Designs: Robust and Efficient Estimation." *The Review of Economic Studies* 91(6):3253–3285.

Brambor, Thomas, William Roberts Clark and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14(1):63–82.

Brancati, Dawn, Jóhanna Birnir and Qutaiba Idlbi. 2023. "Locking Down Violence: The COVID-19 Pandemic's Impact on Non-State Actor Violence." *American Political Science Review* 117(4):1327–1343.

Callaway, Brantly and Pedro H.C. Sant'Anna. 2021. "Difference-in-Differences with multiple time periods." *Journal of Econometrics* 225(2):200–230.

Callaway, Brantly and Pedro H.C. Sant'Anna. 2024. "Getting Started with the did Package.".

Correia, Sergio, Paulo Guimaraes and Tom Zylkin. 2020. "Fast Poisson Estimation with High-dimensional Fixed Effects." *The Stata Journal* 20(1).

Ghebreyesus, Tedros. 2020. "WHO Director-General's Opening Remarks at the Media Briefing on COVID-19 - 11 March 2020." Geneva, Switzerland.

Gutiérrez-Romero, Roxana. 2022. "Conflicts Increased in Africa Shortly after COVID-19 Lockdowns, but Welfare Assistance Reduced Fatalities." *Economic Modelling* 16:105991.

Liu, Licheng, Ye Wang and Yiqing Xu. 2024. "A Practical Guide to Counterfactual Estimators for Causal Inference with Time-Series Cross-Sectional Data." *American Journal of Political Science* 68(1):160–176.

Mehrl, Marius and Paul W Thurner. 2021. "The Effect of the Covid-19 Pandemic on Global Armed Conflict: Early Evidence." *Political Studies Review* 19(2):286–293.

Motta, Victor. 54. "Estimating Poisson Pseudo-Maximum-Likelihood Rather than Log-Linear Model of a Log-Transformed Dependent Variable." *RAUSP Management Journal* 4(508-518).

Ramanathan, Ramu. 2002. *Introductory Econometrics with Applications*. San Diego, CA: Harcourt.

Sun, Liyang and Sarah Abraham. 2021. "Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects." *Journal of Econometrics* 225(2):175–199.

Wooldridge, Jeff. 2019. "Correcting Standard Errors for a Fixed Effects Poisson Model.". **URL:** *https://www.statalist.org/forums*

Wooldridge, Jeffrey M. 2010. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.