Supplementary Information for

The spatio-temporal relationship between social media activism and physical protest: evidence from #JusticeForGeorgeFloyd

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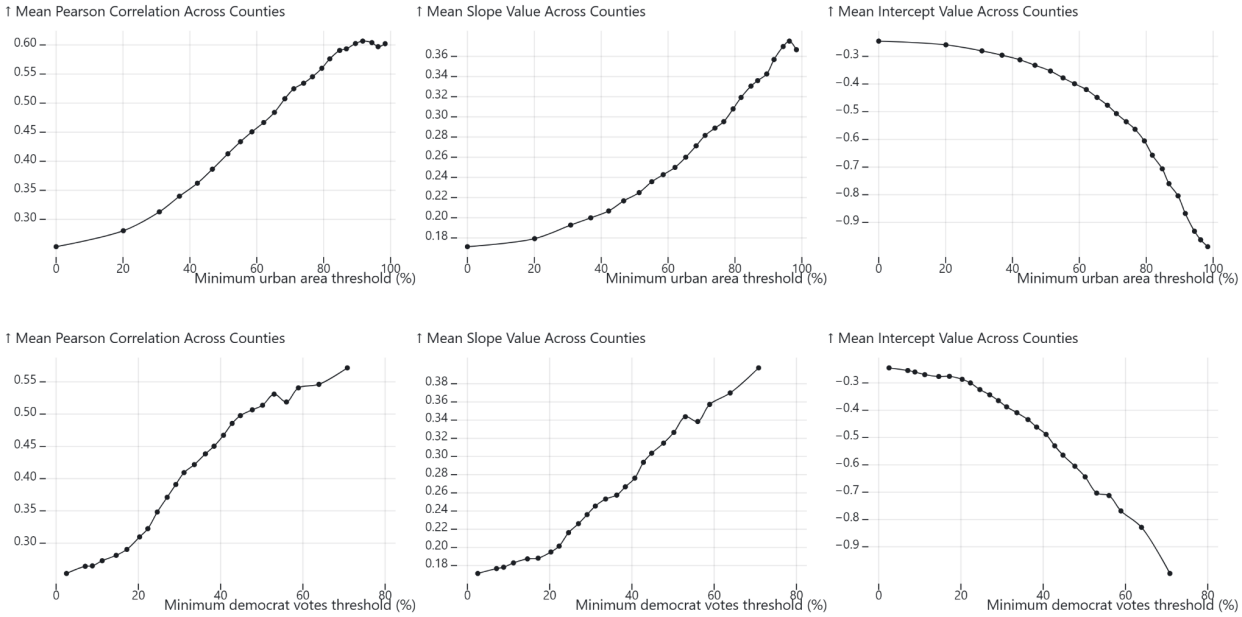

Figure S1. Evolution of power regression parameters (for the power relationship between daily number of tweets and daily number of protests) with population density (top), urban area (middle), and democratic votes turnout (bottom).

state	pearson_r	r2
AK	0.627	0.393
WY	0.575	0.331
MT	0.629	0.396
ND	0.480	0.230
SD	0.715	0.512
NM	0.742	0.551
ID	0.447	0.200
NE	0.764	0.583
NV	0.505	0.255
KS	0.663	0.439
UT	0.715	0.511
ME	0.709	0.503
OR	0.807	0.651
CO	0.768	0.589
IA	0.868	0.754
OK	0.524	0.275
AR	0.643	0.414
MS	0.711	0.505
AZ	0.743	0.552
VT	0.614	0.377
MN	0.823	0.678
WV	0.784	0.615
MO	0.777	0.604
AL	0.726	0.528
WI	0.731	0.534
LA	0.725	0.525
TX	0.829	0.686
KY	0.715	0.511
WA	0.835	0.697
NH	0.689	0.475
TN	0.832	0.692
SC	0.811	0.658
MI	0.834	0.695
GA	0.839	0.705
IN	0.824	0.679
NC	0.836	0.699
VA	0.858	0.736
HI	0.744	0.554
IL	0.805	0.648
CA	0.923	0.853
OH	0.795	0.632
PA	0.797	0.635
FL	0.811	0.658
NY	0.869	0.755
DE	0.329	0.108
MD	0.692	0.480
CT	0.726	0.527
MA	0.764	0.583
RI	0.598	0.358
NJ	0.757	0.573
DC	0.391	0.153

Table S1. Results for state-level power regressions between daily number of tweets and daily number of physical protests.

granger_relationship	p_value	state
tweet_count ->protest_count	0.0	AK
tweet_count ->protest_count	0.0	AL
tweet_count ->protest_count	0.0	AR
tweet_count ->protest_count	0.0	AZ
tweet_count ->protest_count	0.0	CA
tweet_count ->protest_count	0.0	CO
tweet_count ->protest_count	0.0	CT
tweet_count ->protest_count	0.0	DC
tweet_count ->protest_count	0.4189	DE
tweet_count ->protest_count	0.0	FL
tweet_count ->protest_count	0.0	GA
tweet_count ->protest_count	0.0	HI
tweet_count ->protest_count	0.0	IA
tweet_count ->protest_count	0.0247	ID
tweet_count ->protest_count	0.0	IL
tweet_count ->protest_count	0.0	IN
tweet_count ->protest_count	0.0	KS
tweet_count ->protest_count	0.0	KY
tweet_count ->protest_count	0.0	LA
tweet_count ->protest_count	0.0	MA
tweet_count ->protest_count	0.0	MD
tweet_count ->protest_count	0.0	ME
tweet_count ->protest_count	0.0	MI
tweet_count ->protest_count	0.0	MN
tweet_count ->protest_count	0.0	MO
tweet_count ->protest_count	0.0	MS
tweet_count ->protest_count	0.0071	MT
tweet_count ->protest_count	0.0	NC
tweet_count ->protest_count	0.2303	ND
tweet_count ->protest_count	0.0	NE
tweet_count ->protest_count	0.0061	NH
tweet_count ->protest_count	0.0	NJ
tweet_count ->protest_count	0.0	NM
tweet_count ->protest_count	0.0	NV
tweet_count ->protest_count	0.0	NY
tweet_count ->protest_count	0.0	OH
tweet_count ->protest_count	0.0	OK
tweet_count ->protest_count	0.0	OR
tweet_count ->protest_count	0.0	PA
tweet_count ->protest_count	0.0062	RI
tweet_count ->protest_count	0.0	SC
tweet_count ->protest_count	0.0	SD
tweet_count ->protest_count	0.0	TN
tweet_count ->protest_count	0.0	TX
tweet_count ->protest_count	0.0	USA
tweet_count ->protest_count	0.0	UT
tweet_count ->protest_count	0.0	VA
tweet_count ->protest_count	0.0	VT
tweet_count ->protest_count	0.0	WA
tweet_count ->protest_count	0.0	WI
tweet_count ->protest_count	0.0	WV
tweet_count ->protest_count	0.1253	WY

Table S2. National and State-level results of Granger causality analysis for the hypothesis that tweet count Granger causes protest count.