ONLINE APPENDIX FOR

Black Lives Matter Protests and Risk Avoidance:

**The Case of Civil Unrest During a Pandemic**

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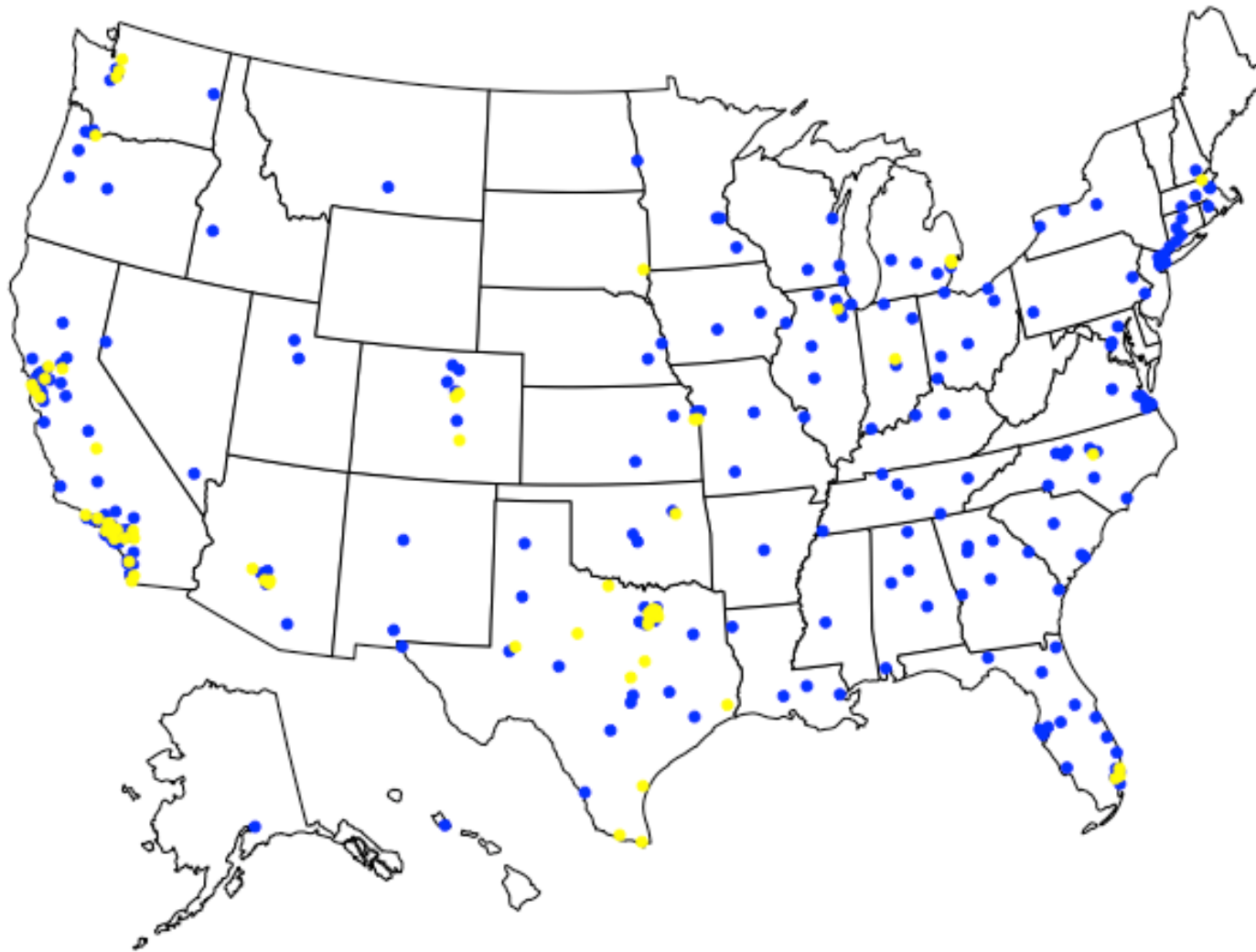**Appendix Figure 1: Distribution of Large U.S. Cities with and without Protests**

Note: Red dots represent cities with protests. Black dots represent cities with >100,000 population and without a protest.

Appendix Figure 2. Distribution of Large Cities with Protests, by Whether Accompanied by Media Reports of Violence
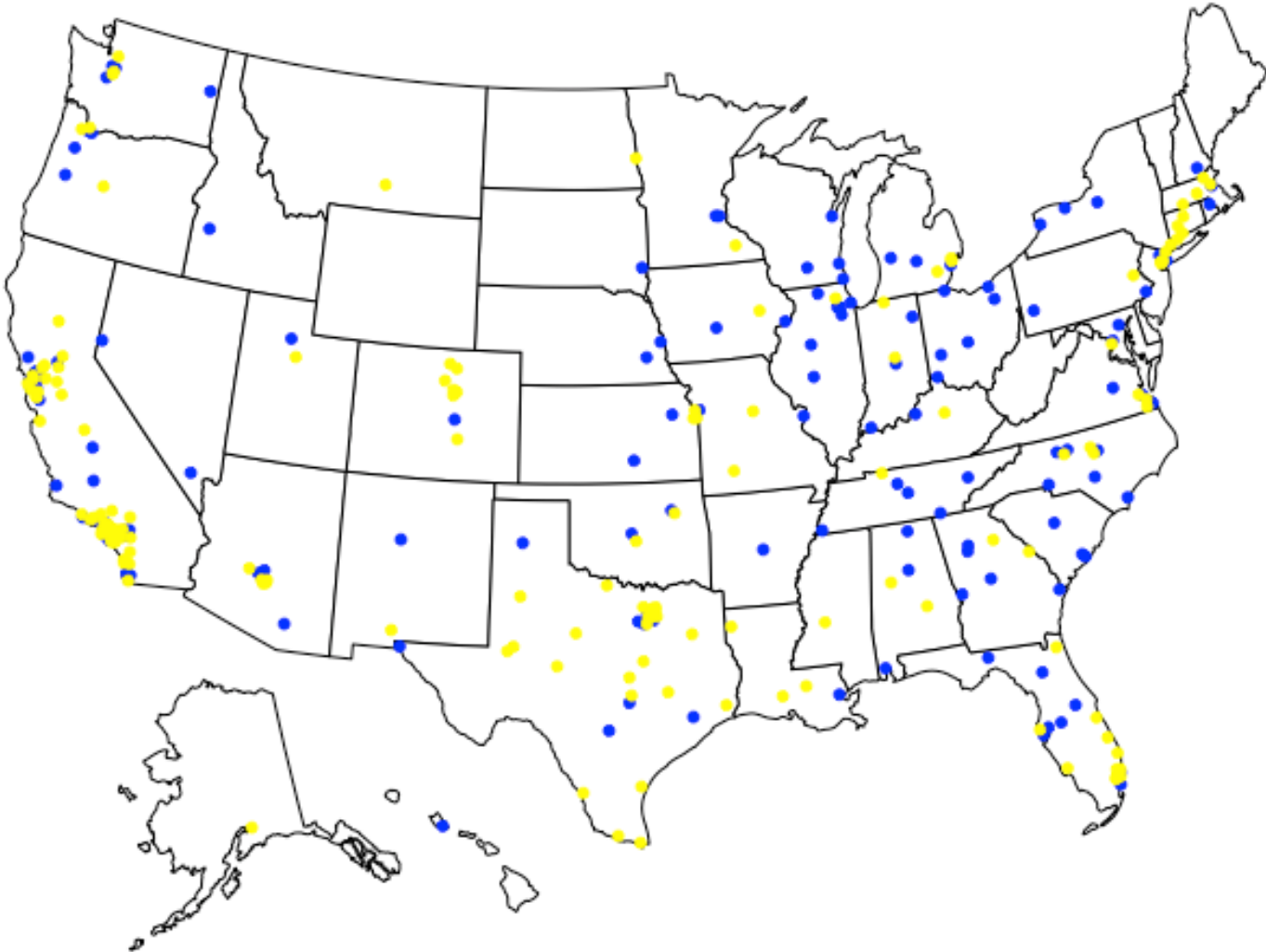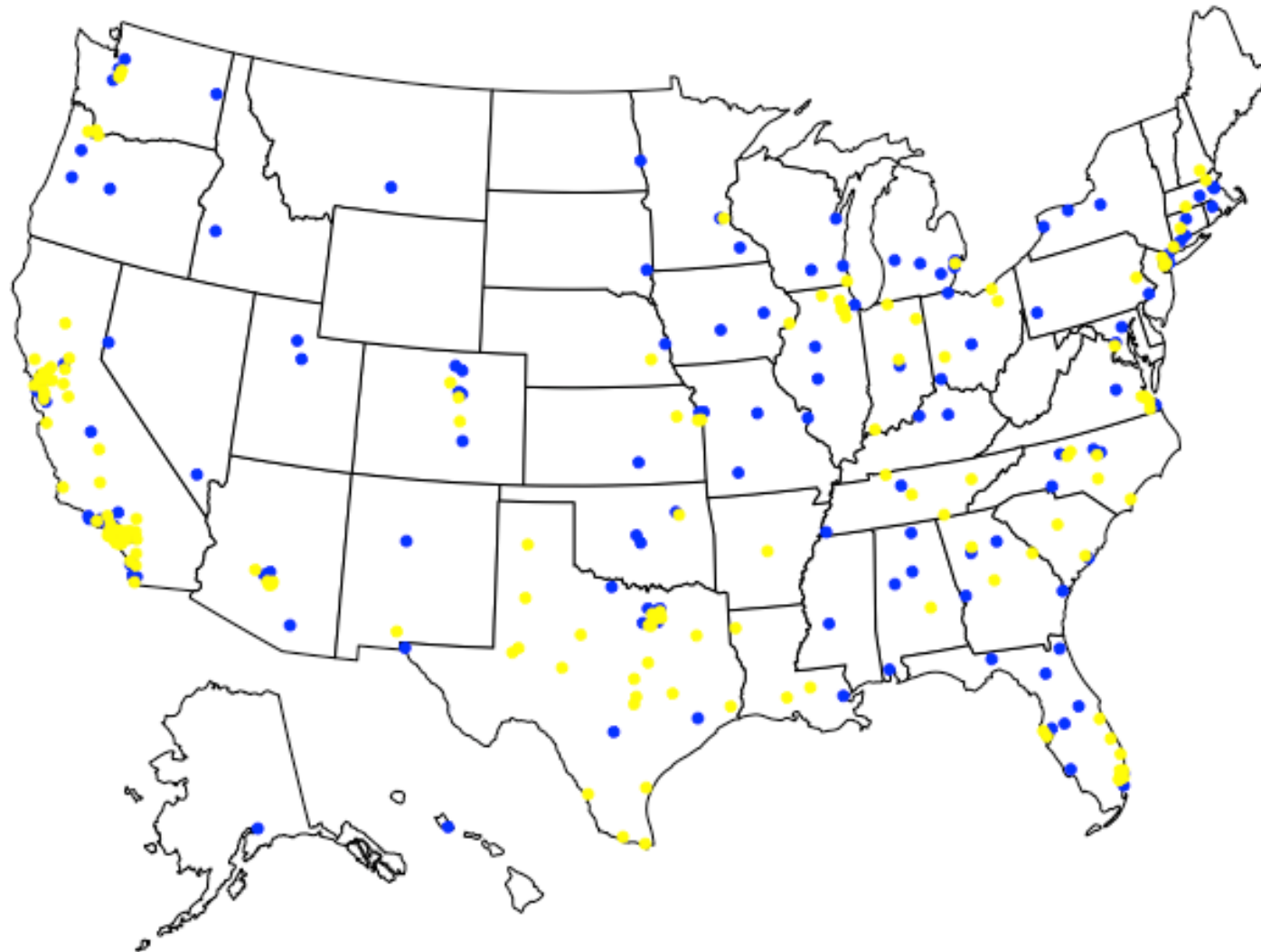

Note: Blue dots represent cities with protests that were accompanied by mainstream media reports of violence. Yellow dots represent cities with protests that were consistently described as peaceful.

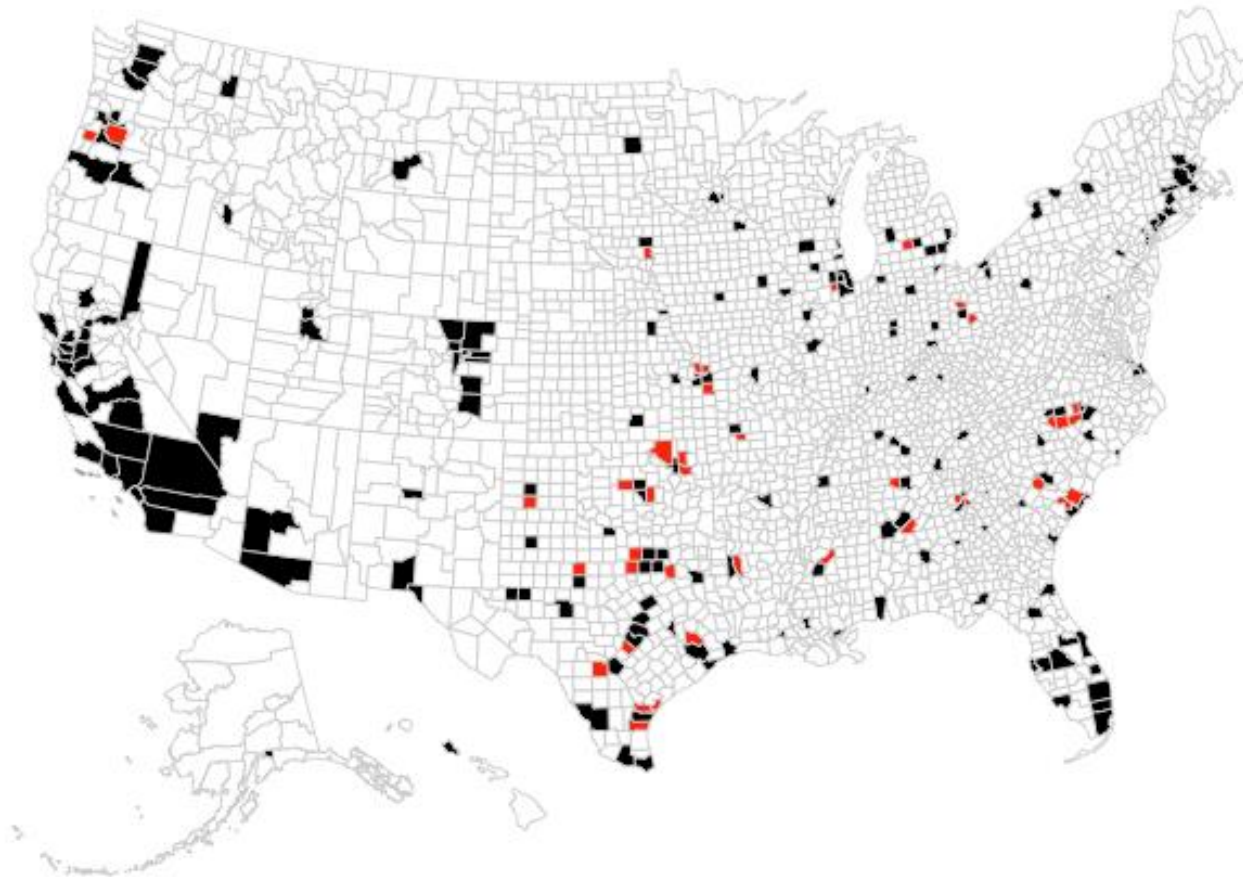**Appendix Figure 3. Distribution of Large Cities with Protests, by Protest Persistence**

Note: Blue dots represent cities with protests that persisted for three or more days. Yellow dots represent cities with protests that only persisted for one or two days.

Appendix Figure 4. Distribution of Large Cities with Protests, by Whether Protest Attracted at Least 1,000 Protesters

Note: Blue dots represent cities with protests with crowds of over 1,000 people. Yellow dots represent cities with protests with crowds of less than 1,000 people.
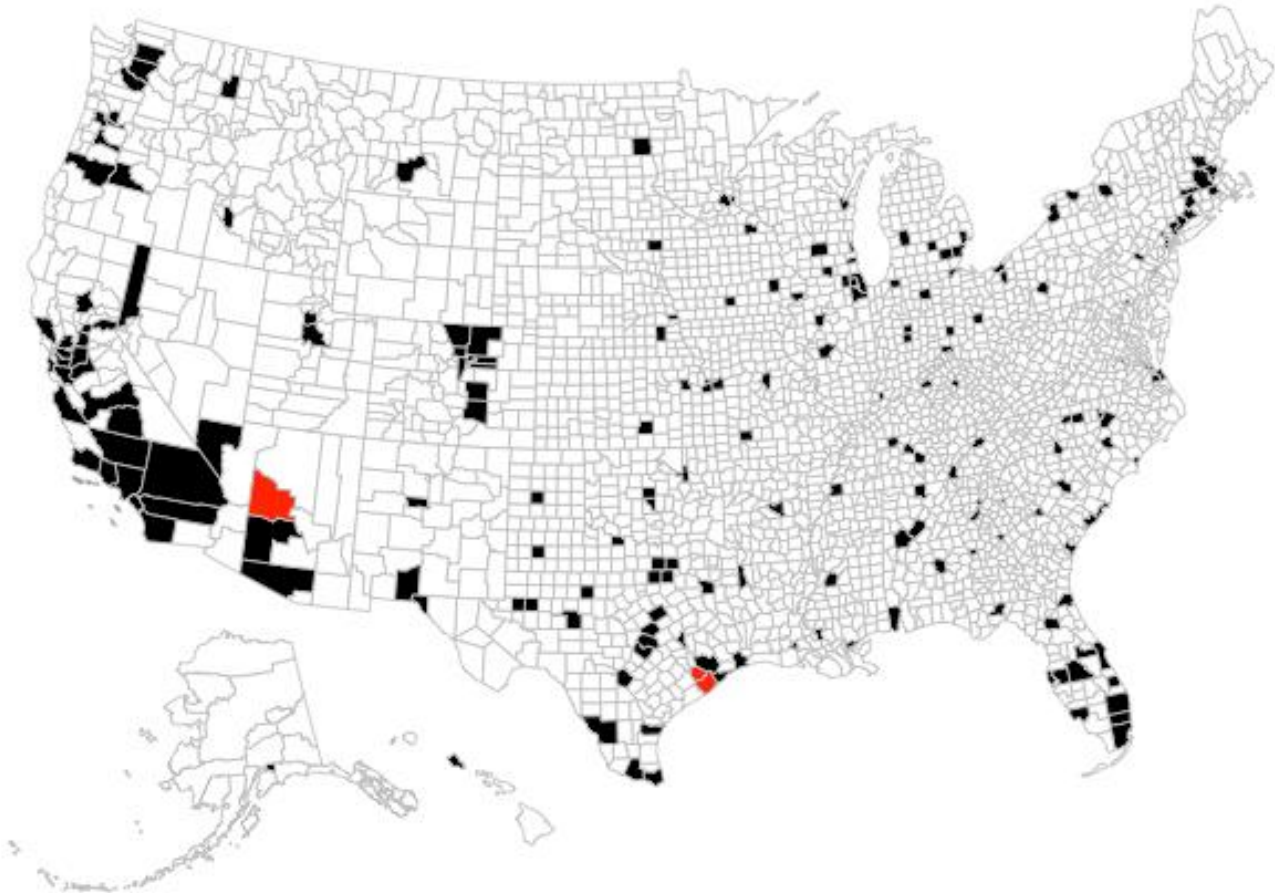
Appendix Figure 5A. Distribution of Counties with at Least One Large Urban Protest

Note: Black shaded counties represent primary counties with a protest. Red shaded counties represent secondary counties with a protest.

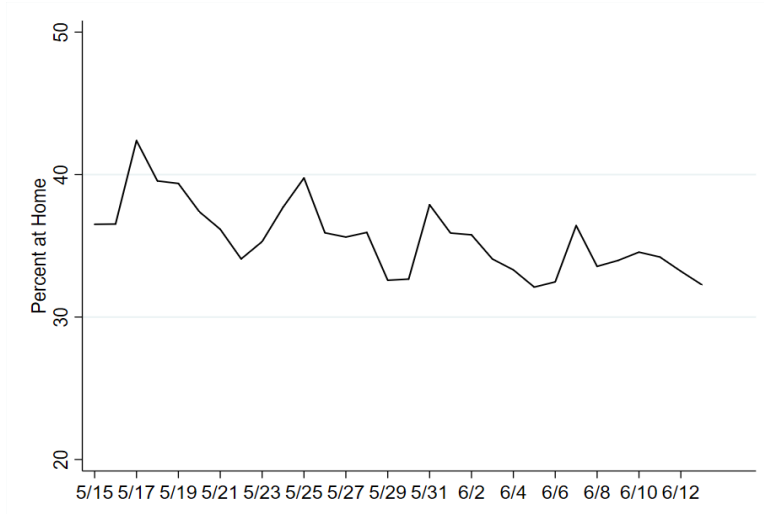**Appendix Figure 5B Distribution of Counties With and Without Protests**

Note: Black shaded counties represent primary counties with a protest. Red shaded counties represent primary counties without a protest.

Appendix Figure 6A. Trends in Social Distancing and COVID-19 Cases

Panel (a): Stay-at-Home Full-Time

Panel (b): Median Percent Time Spent at Home
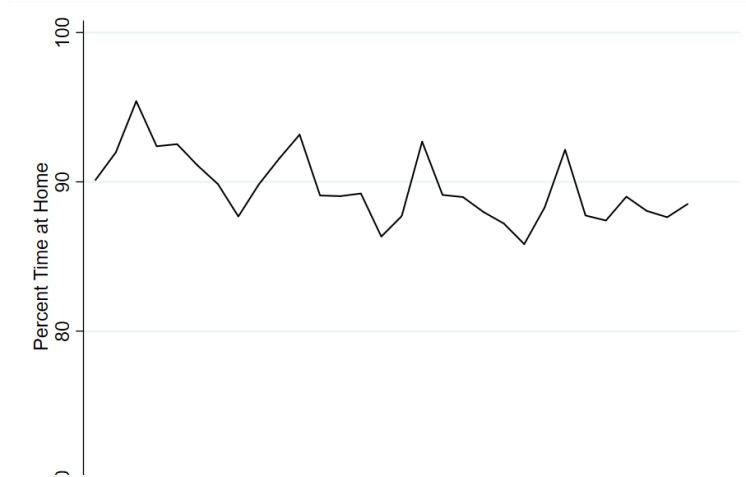
Panel (c): Median Hours at Home
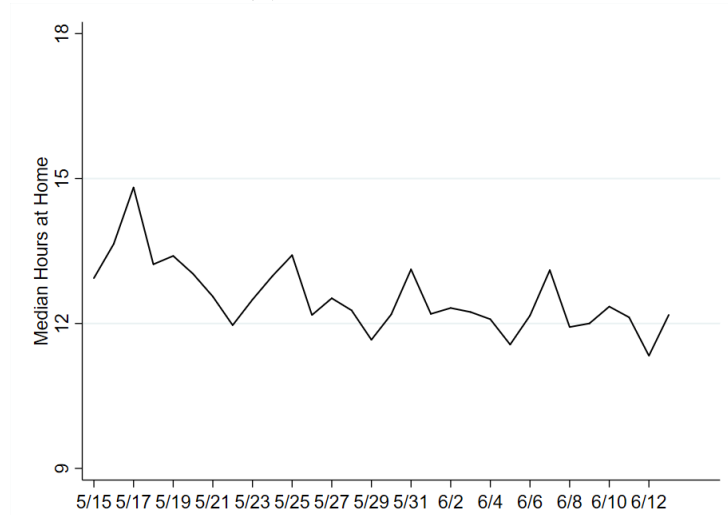
Appendix Figure 6B. Trends in COVID-19 Cases and COVID-19 Deaths

Panel (a): COVID-19 Cases per 100,000

Panel (b): COVID-19 Deaths per 100,000

Appendix Figure 6C. Trends in COVID-19 Cases and COVID-19 Deaths, by Timing of BLM Protest Onset
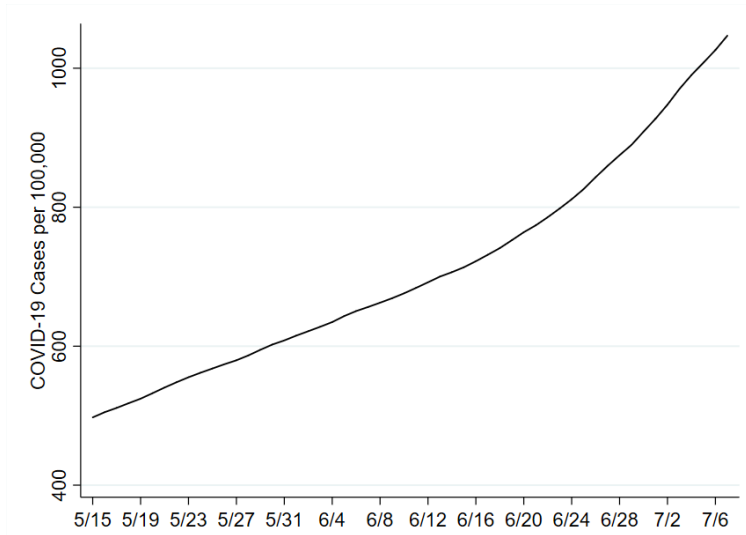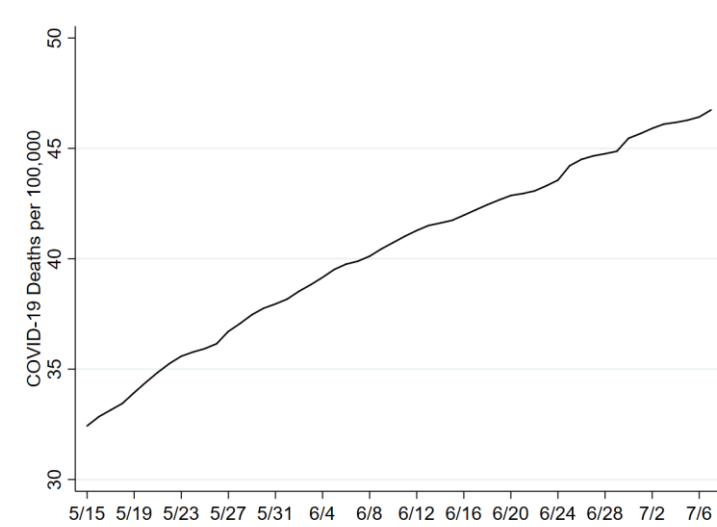
Panel (a): COVID-19 Cases per 100,000
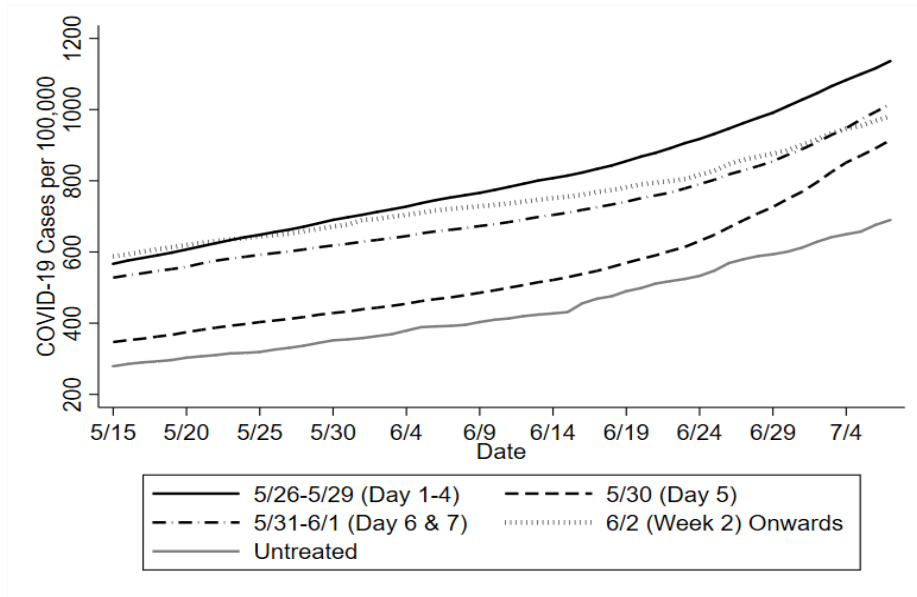
Panel (b): COVID-19 Deaths per 100,000
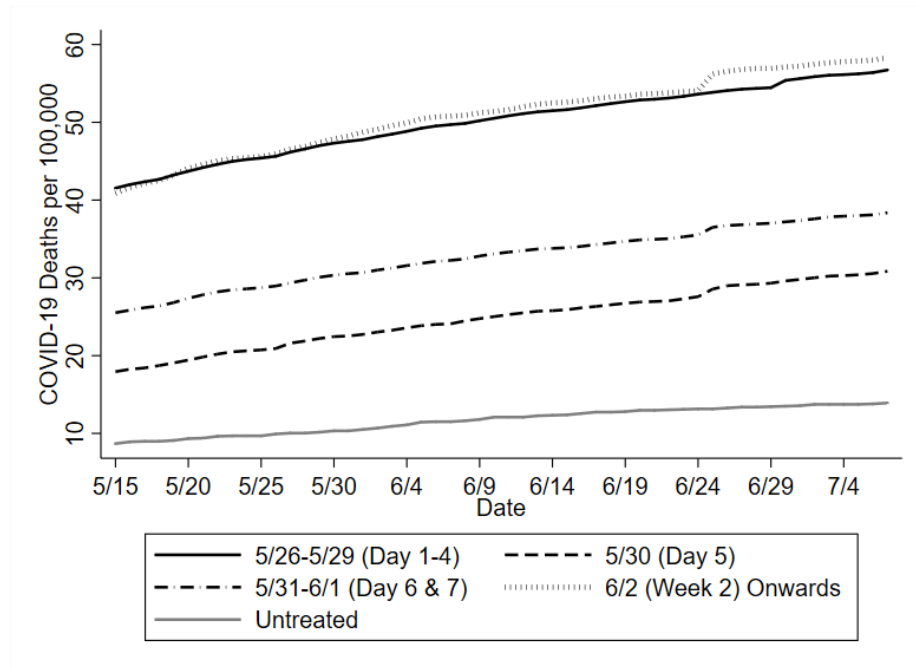
Appendix Figure 7A. Event-Study Analysis of Social Distancing, Stacked DD Estimates

Panel (a): Percent Staying at Home Full-Time
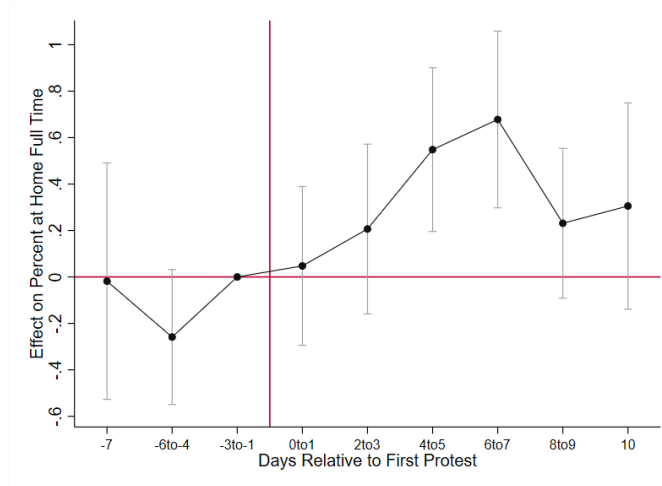
Panel (b): Restaurant & Bar
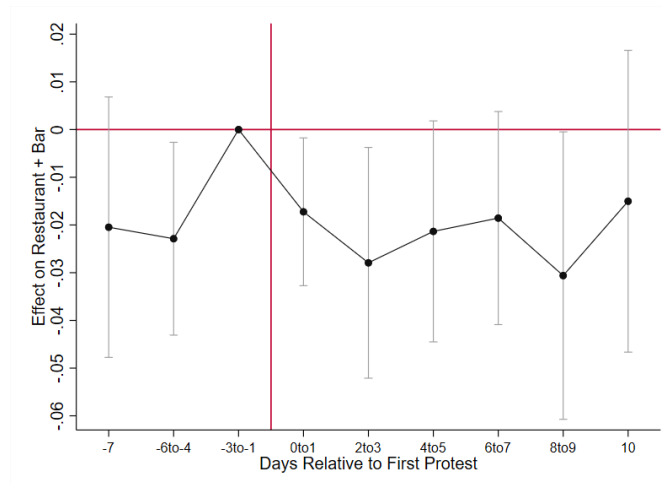
Notes: Estimate is generated using weighted stacked difference-in-difference. For each stack, the sample is restricted to 7 days before treatment to 10 days post-treatment. For foot-traffic, the outcome is the inverse hyperbolic sine of the measures. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 7B. Event-Study Analysis of Social Distancing, Callaway and Santa'Anna (2021) Estimates
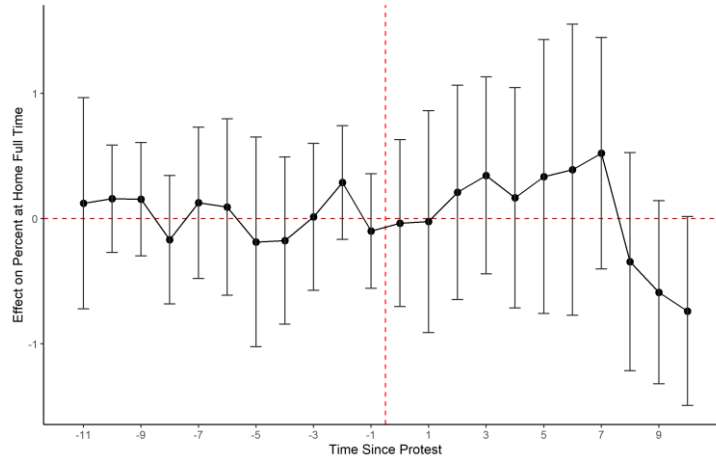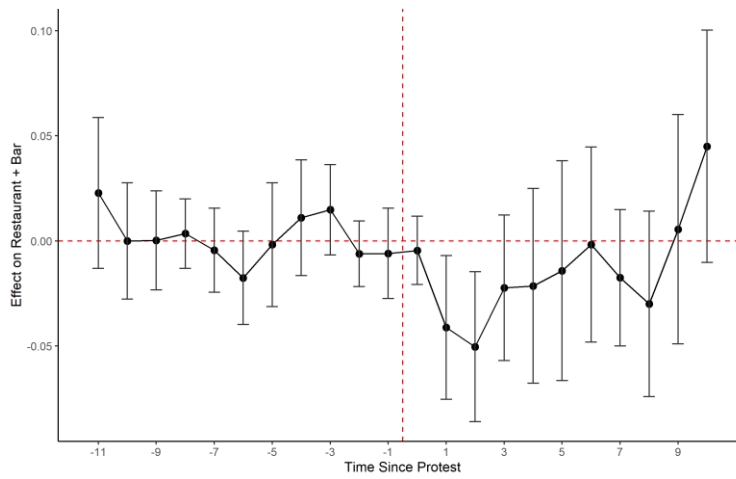
Panel (a): Percent Staying at Home Full-Time

Panel (b): Restaurant & Bar

Notes: Estimate is generated using Callaway Sant'Anna estimates. Control group includes never and not yet adopters. Bar lines represents 95% confidence intervals generated using bootstrapped standard errors.

Appendix Figure 8. Event-Study Analysis of BLM Protests and Non-Resident Smartphone Pings

Panel (a): Log (Non-Resident Pings)
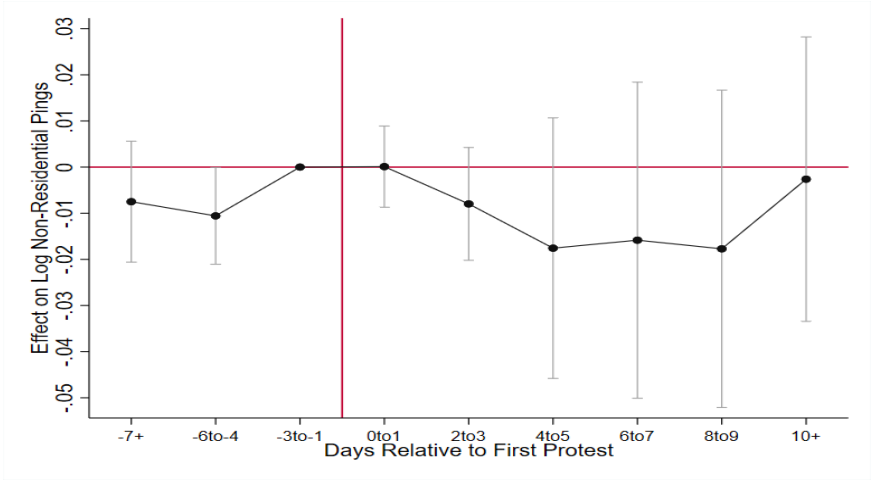
Panel (b): Share of Total Pings that are from Non-Residents
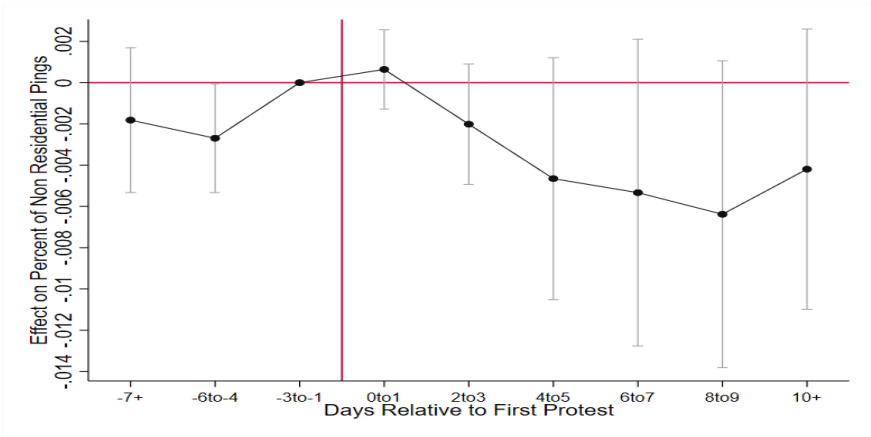
Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened,

whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 9: Estimated Effect of BLM Protests on Stay-at-Home Behavior, Using Treatment County Clusters

Panel (a): Percent Staying at Home Full-Time

Panel (b): Median Percent of Time at Home
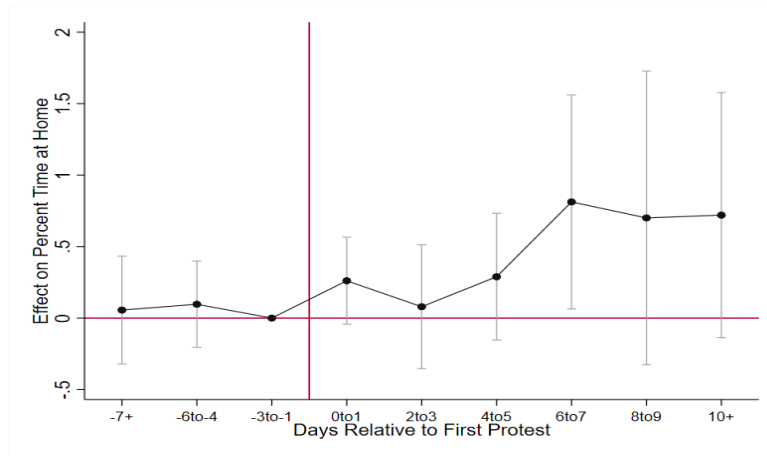
Panel (c): Median Hours Spent at Home
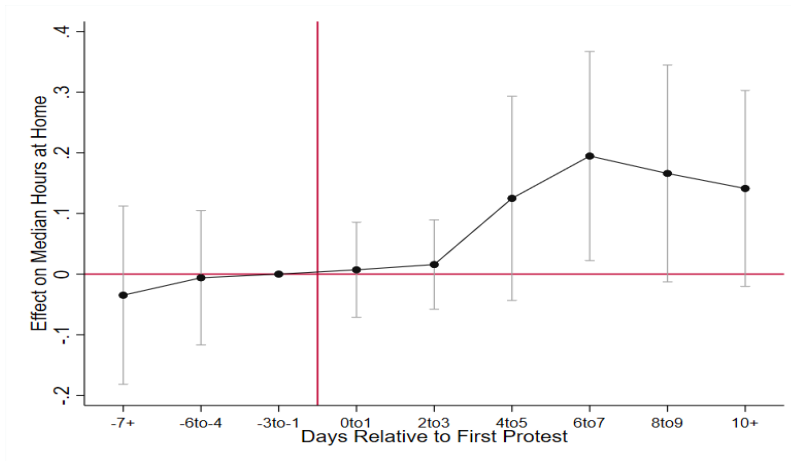
Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10A. Event Study Analysis for Percent of Time at Home, by Timing of Day

Panel (a): Morning (6am-12pm)

Panel (b): Afternoon (12pm-6pm)

Panel (c): Night (6pm-12am)
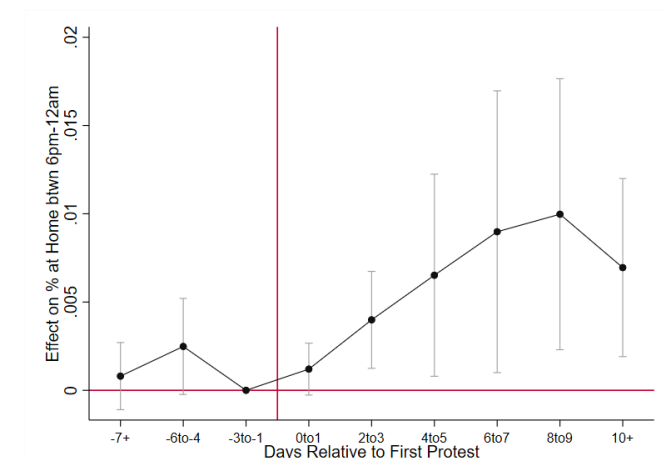
Panel (d): Late Night (12am-6am)
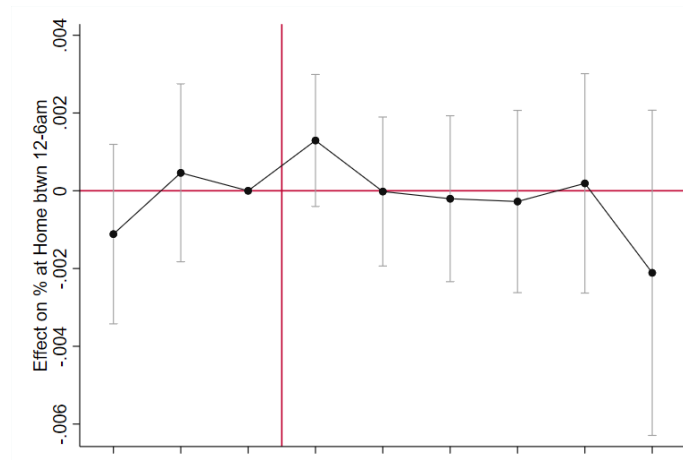
Note. Estimate is generated using weighted least squares. The outcome is the average % of devices who stayed at home during a certain time of the day. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10B. Event-Study Analysis of Effect of Urban Protests on Percent Stay at Home Full-Time, by Protest Characteristics
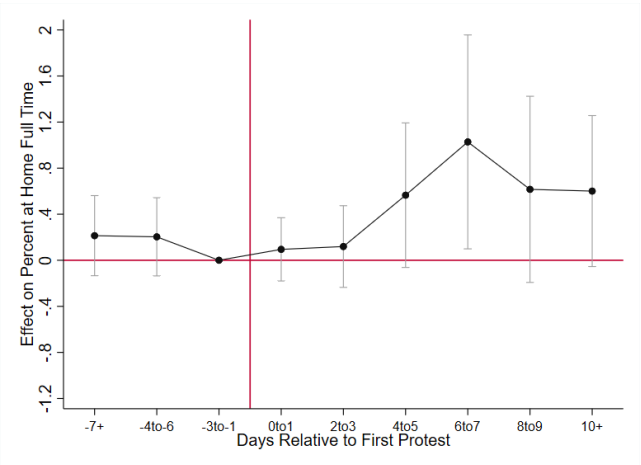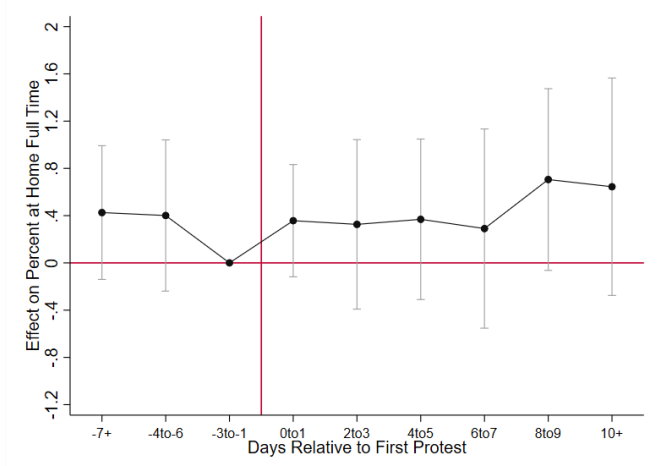
Panel (a): Violent

Panel (b): Non-Violent
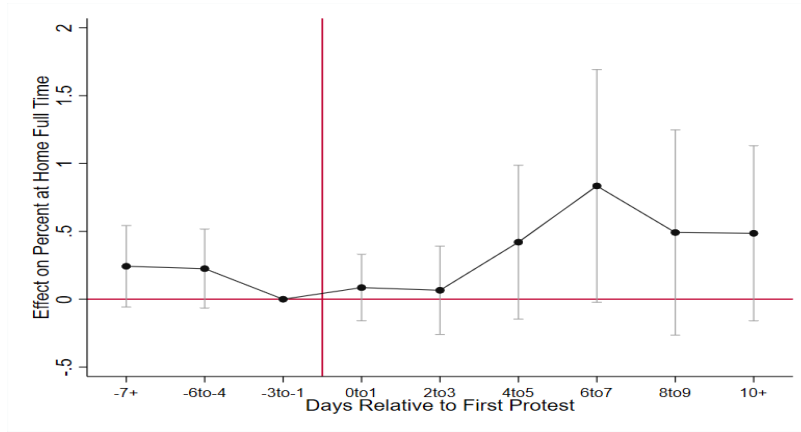
Panel (c): Persistent

Panel (d): Non-Persistent

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10B. Continued

Panel (e): Large Protest
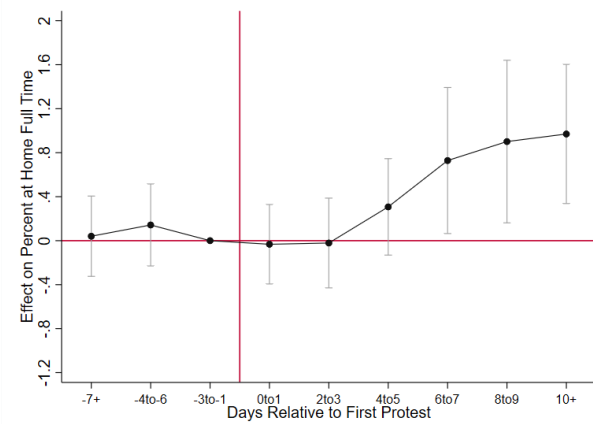
Panel (f): Small Protest

Panel (g): Curfew
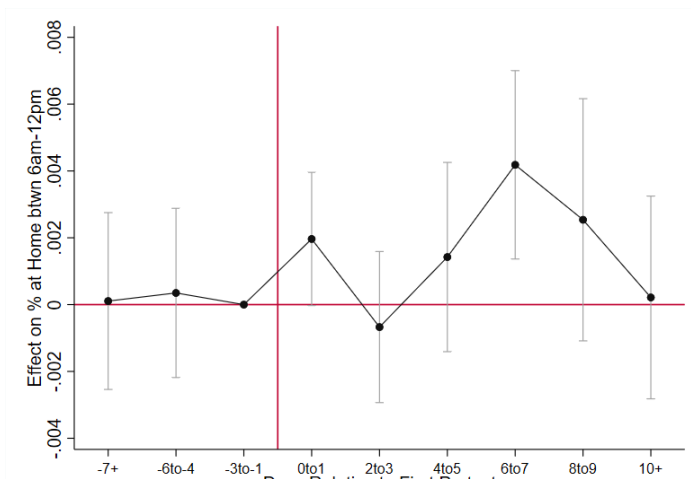

Panel (h): No Curfew

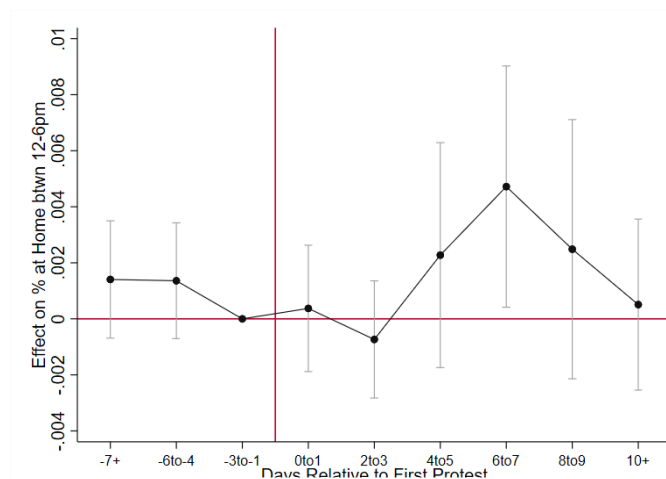

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10C. Event-Study Analysis of Effect of Urban Protests on % Time Spent at Home, by Protest Characteristics
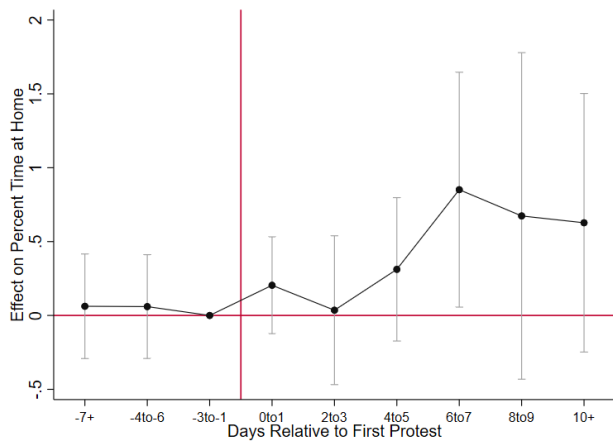
Panel (a): Violent

Panel (b): Non-Violent

Panel (c): Persistent

Panel (d): Non-Persistent

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10C. Continued

Panel (e): Large Protest
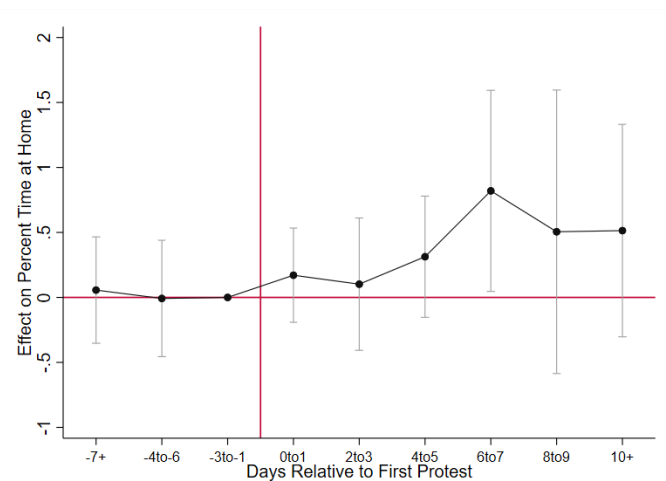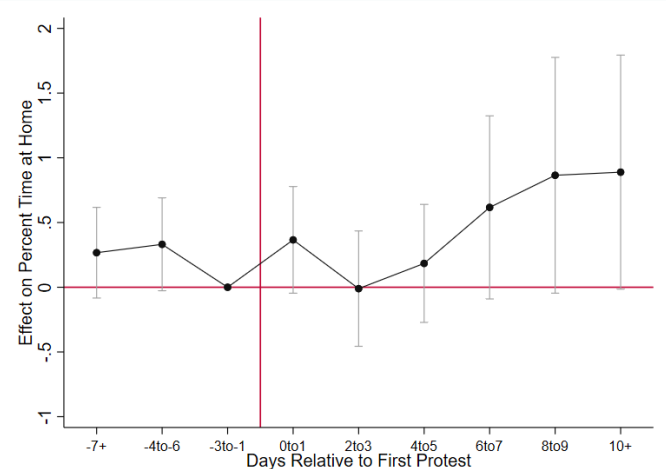
Panel (f): Small Protest

Panel (g): Curfew

Panel (h): No Curfew

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10D. Event-Study Analysis of Effect of Urban Protests on Median Hours at Home, by Protest Characteristics
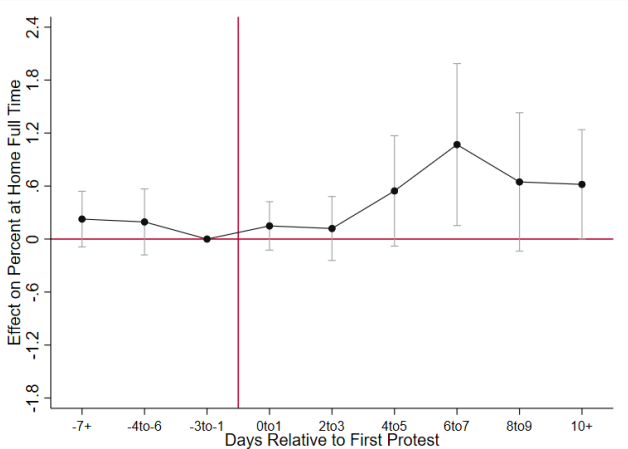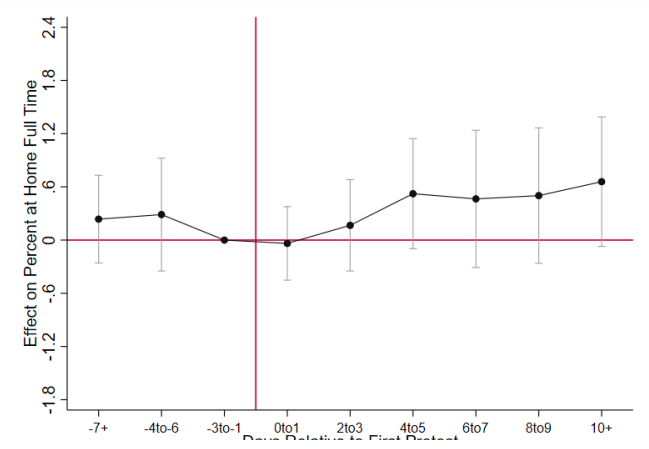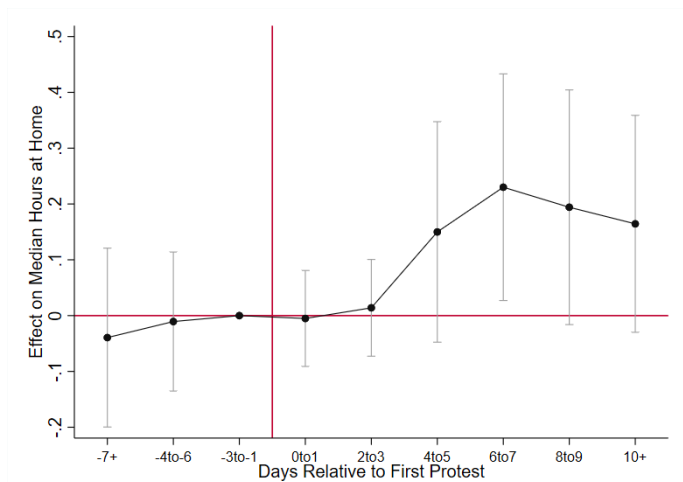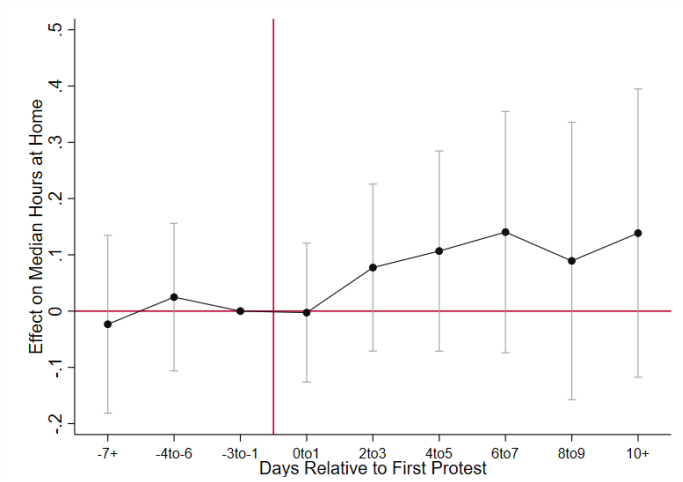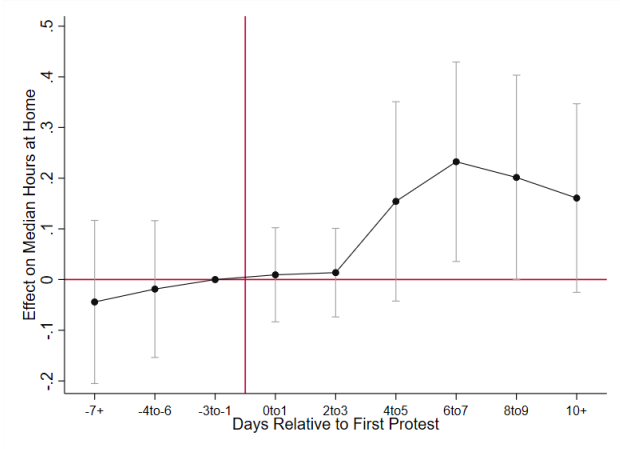
Panel (a): Violent

Panel (b): Non-Violent

Panel (c): Persistent

Panel (d): Non-Persistent

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 10D, Continued

Panel (e): Large Protest
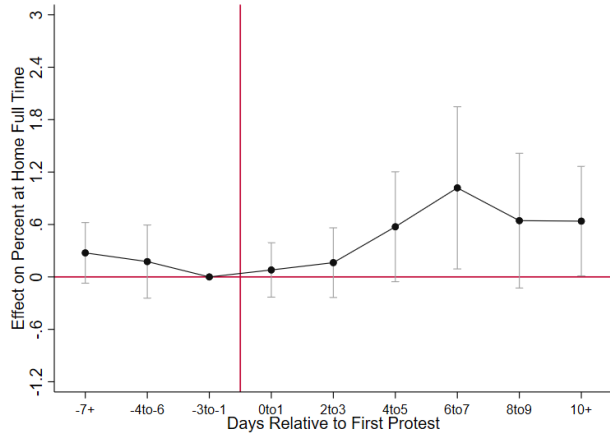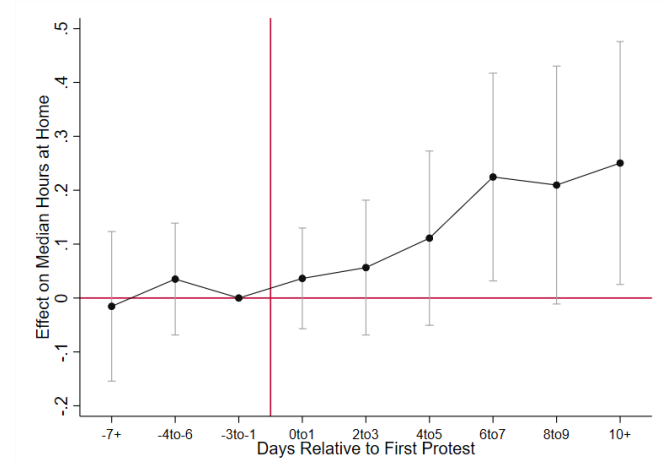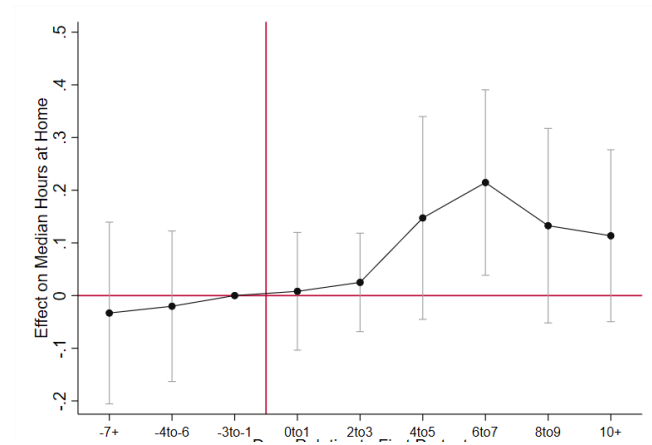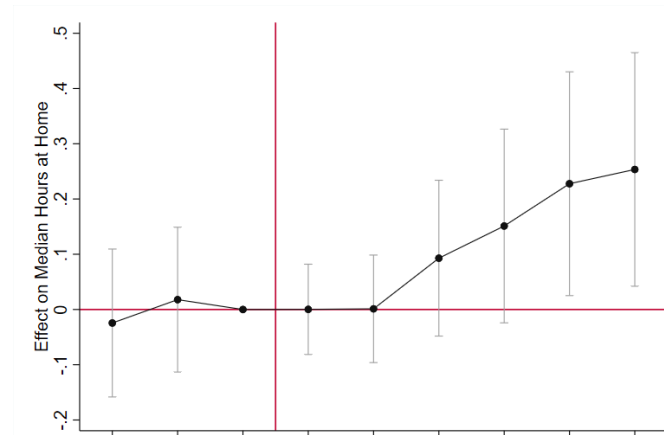

Panel (f): Small Protest

Panel (g): Curfew
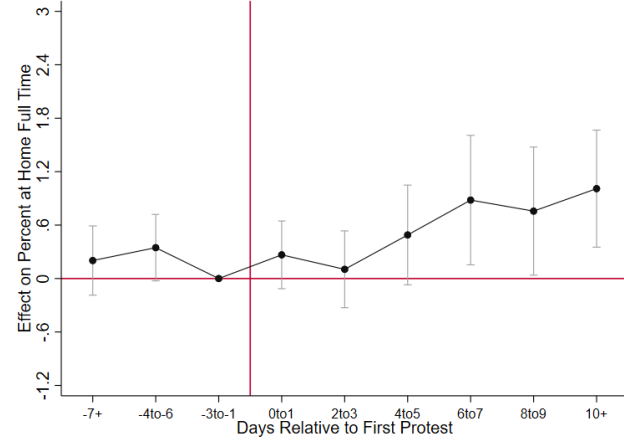

Panel (h): No Curfew

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 11. Event-Study Analysis of Urban Protests on COVID-19 Death Rate
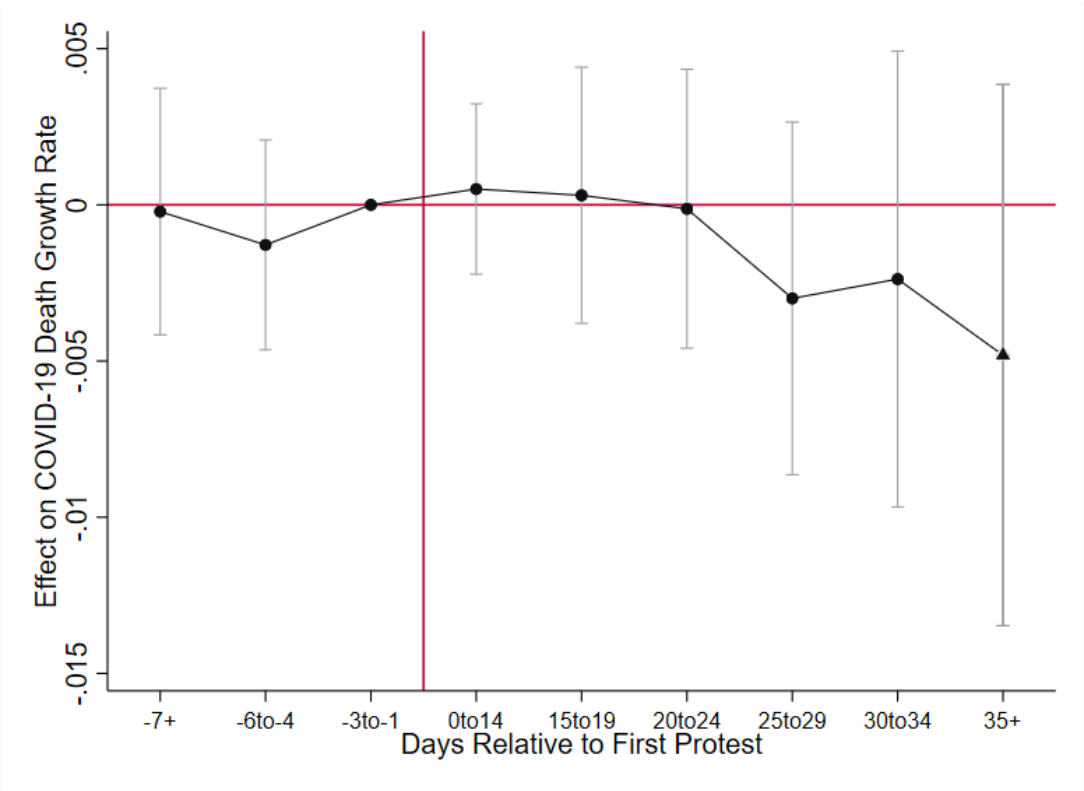
Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.
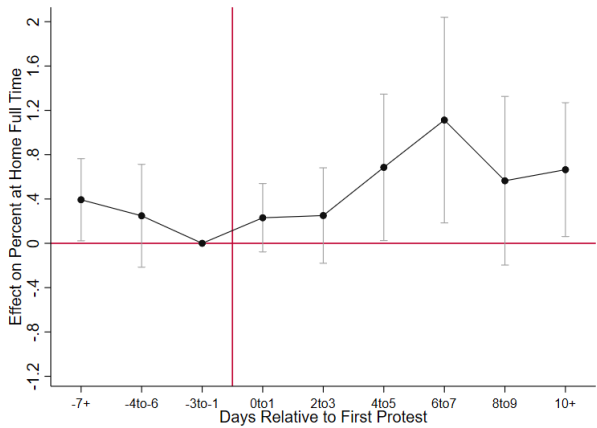
Appendix Figure 12. Event-Study Analysis of Effect of Urban Protests on COVID-19 Case Growth, by Protest Characteristics
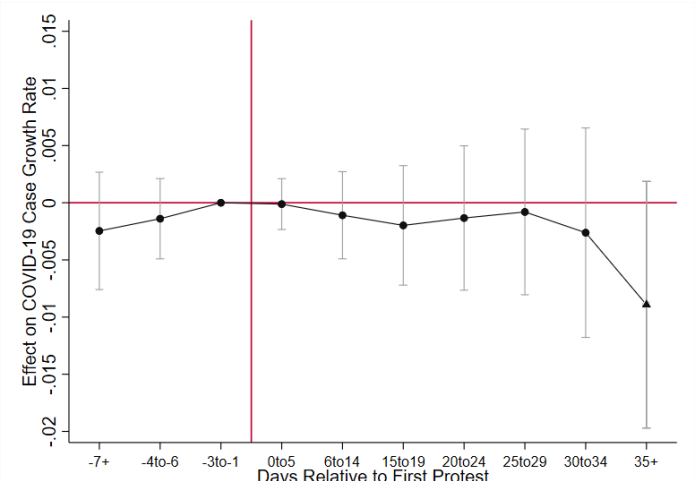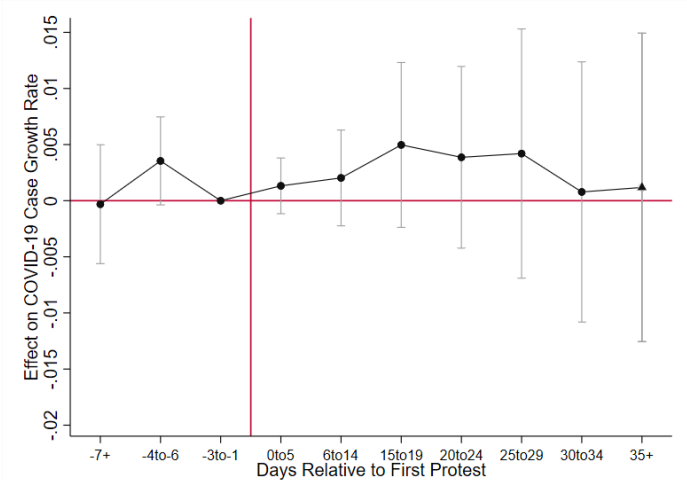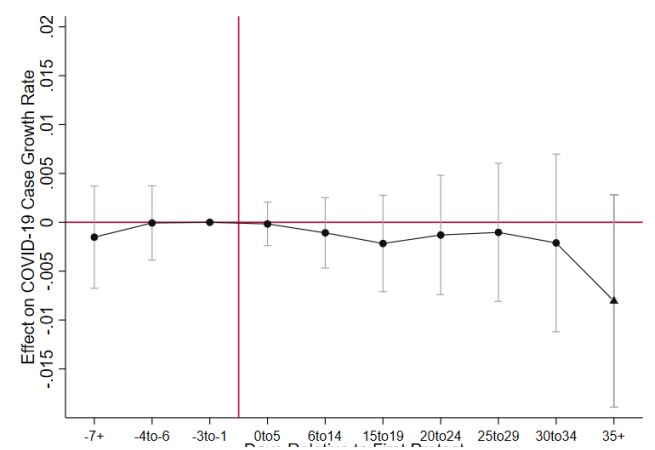
Panel (a): Violent

Panel (b): Non-Violent

Panel (c): Persistent

Panel (d): Non-Persistent
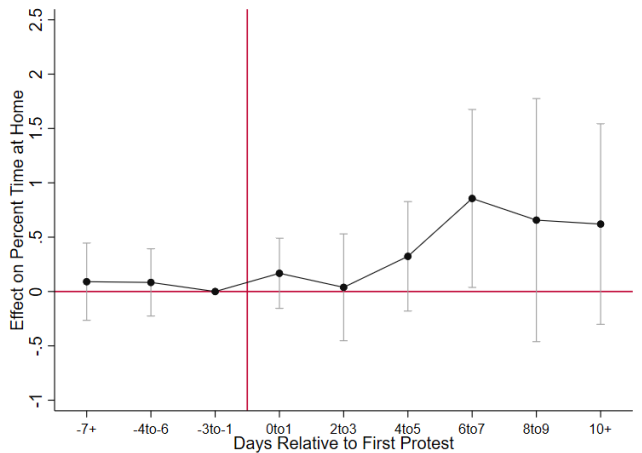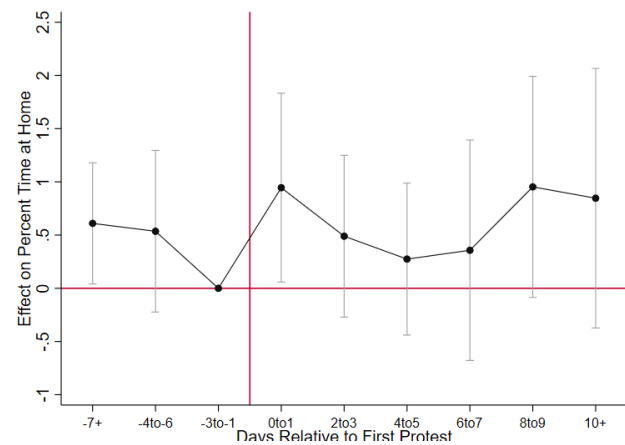

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 12, Continued

Panel (e): Large Protest
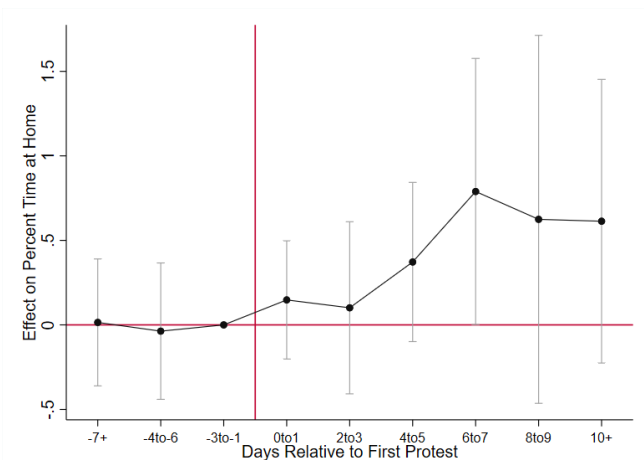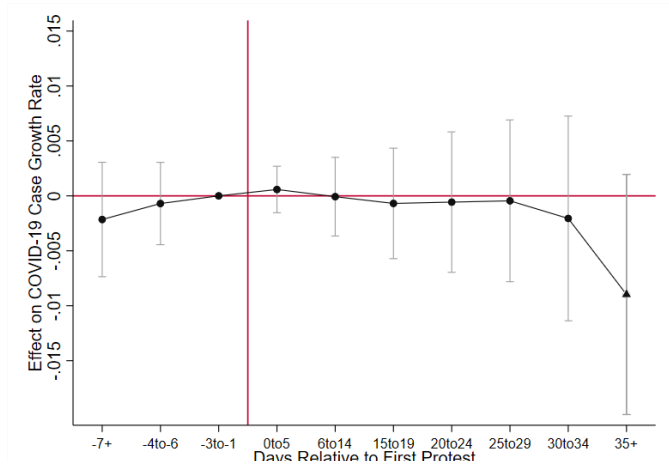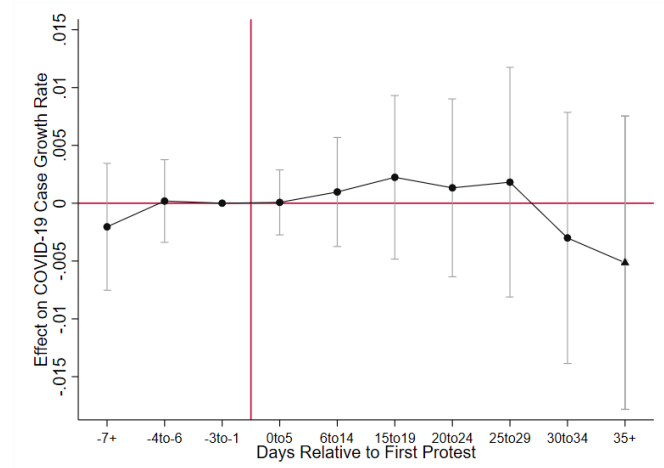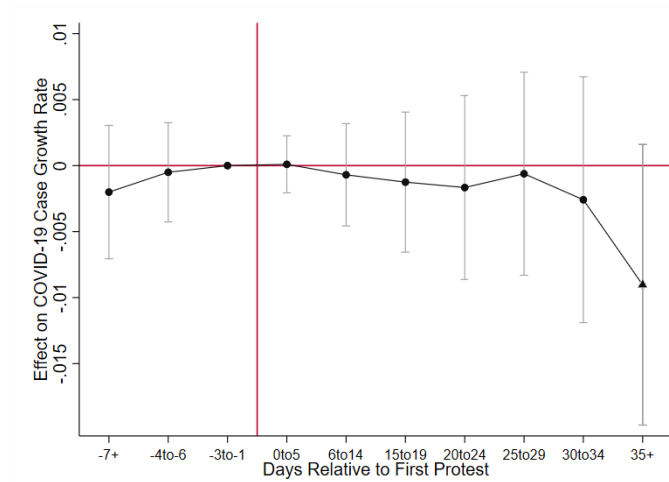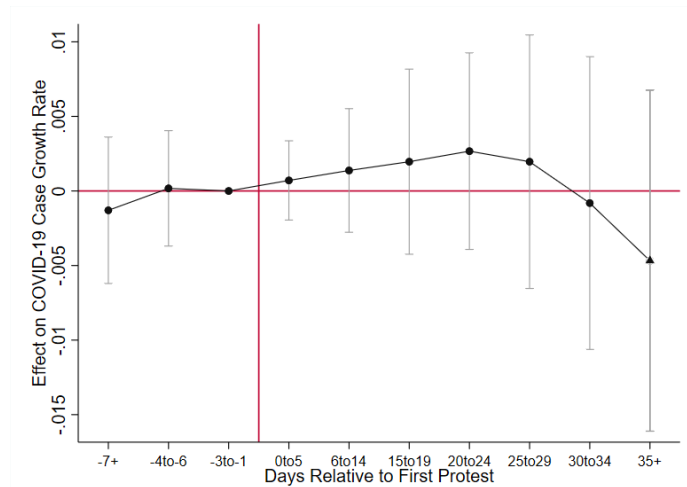

Panel (f): Small Protest

Panel (g): Curfew
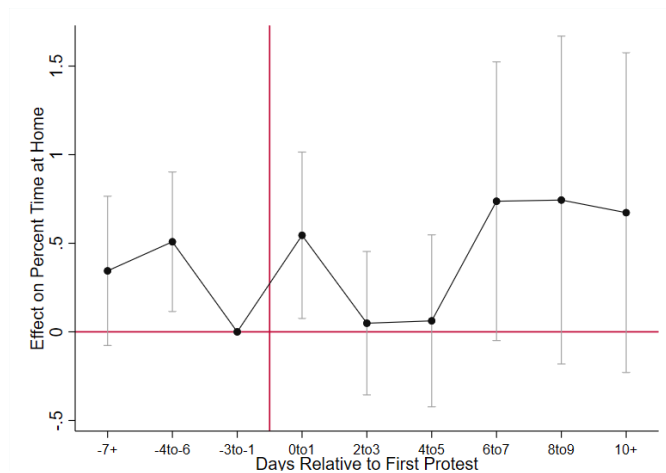

Panel (h): No Curfew

Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Figure 13. Synthetic Control Estimates of Effects of Urban Protests on COVID-19 Cases Per 100,000 Population for Selected Counties with Early Protest and Strong Pre-trend Match (May 28 or Earlier)
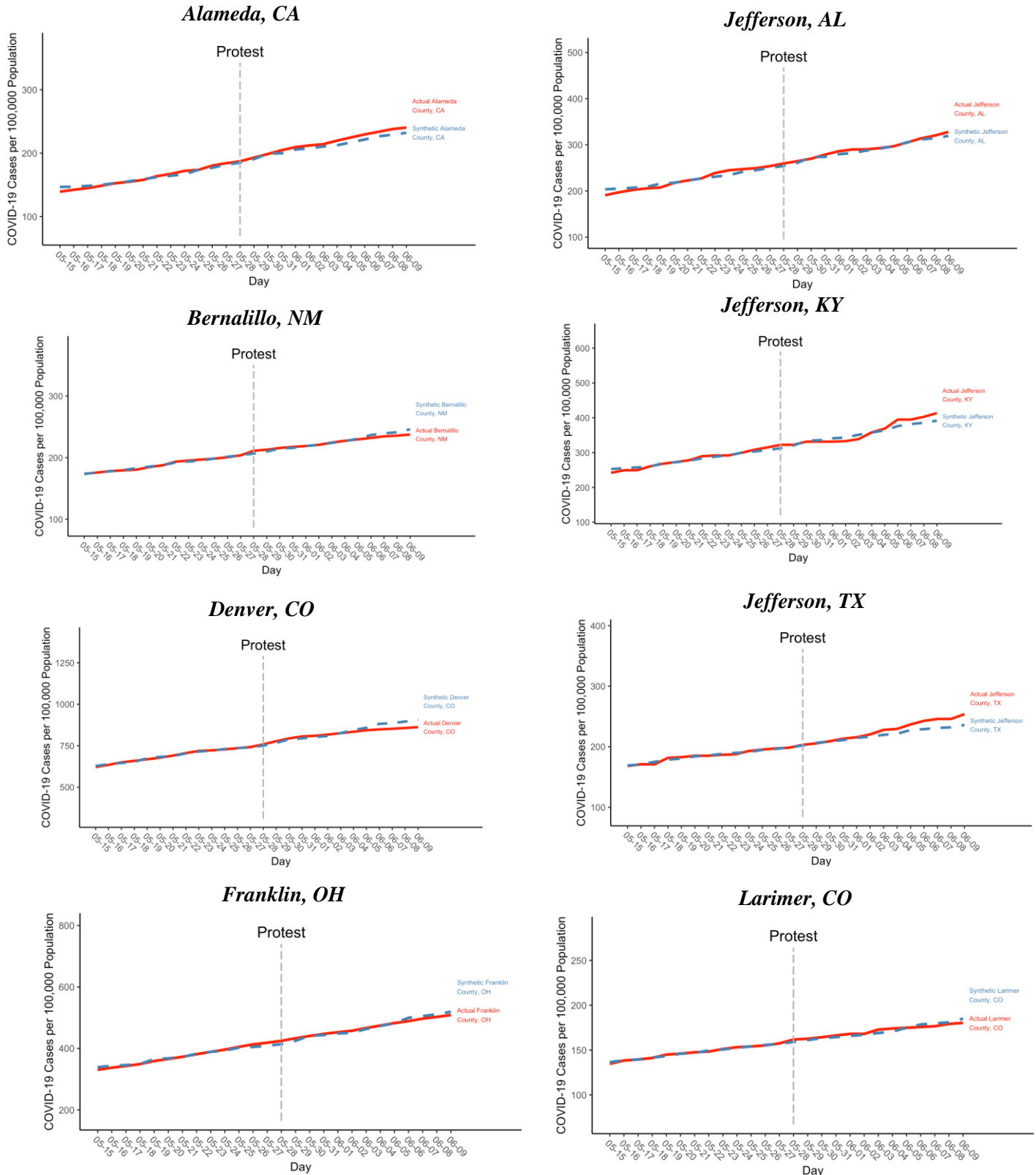
Note: Estimate is generated using synthetic control method matching on each pre-protest day of COVID-19 cases. The donor pool consists of counties where no large (100,000 population) city held a protest or where such a protest took place June 4 or later.

Appendix Figure 13. Continued
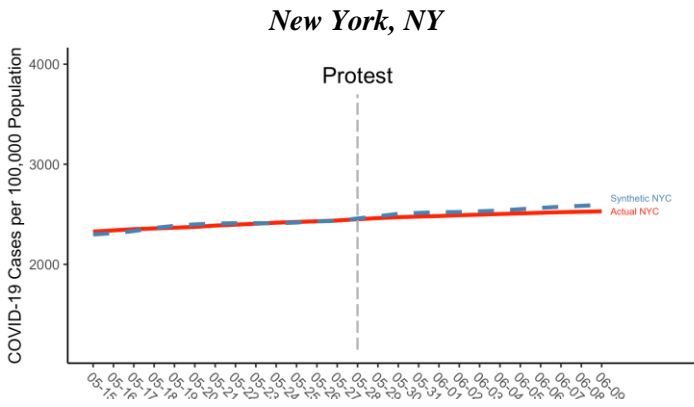
Maricopa, AZ

Shelby, TN

Multnomah, OR

Suffolk, MA

New York, NY

Note: Estimate is generated using synthetic control method matching on each pre-protest day of COVID-19 cases. The donor pool consists of counties where no large (100,000 population) city held a protest or where such a protest took place June 4 or later.

Appendix Figure 14. Event-Study Analysis of BLM Protests and Race-Specific COVID-19 Case Growth, Using Callaway Sant'Anna (2021) Estimates

Panel (a): Blacks Ages 20-to-39
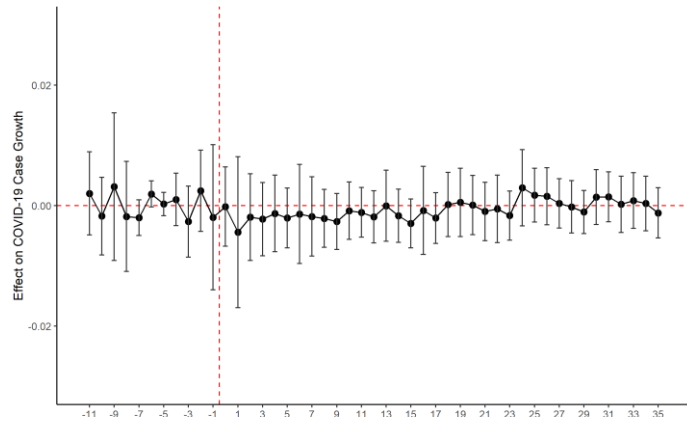
Panel (b): Blacks Ages 40 and Older
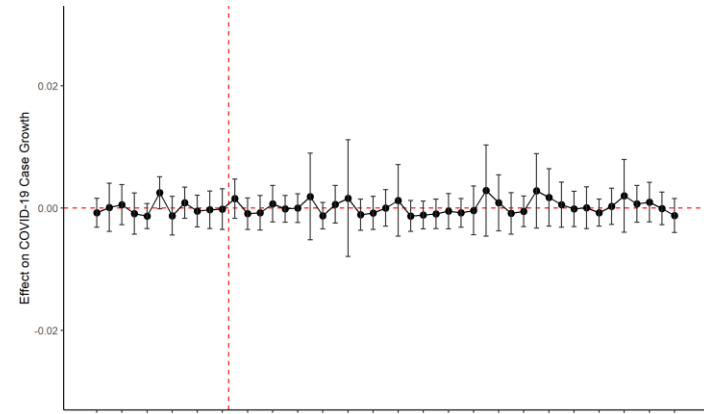
Panel (c): Whites Ages 20-to-39
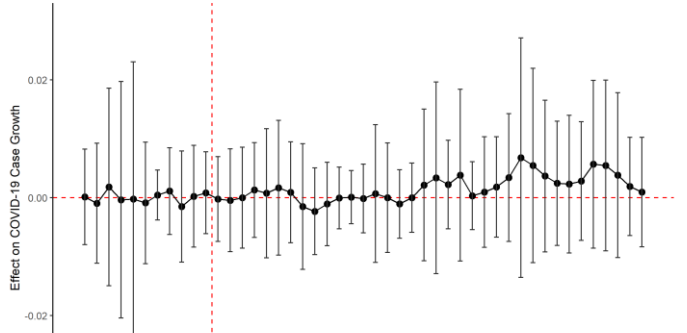
Panel (d): Whites Ages 40 and Older
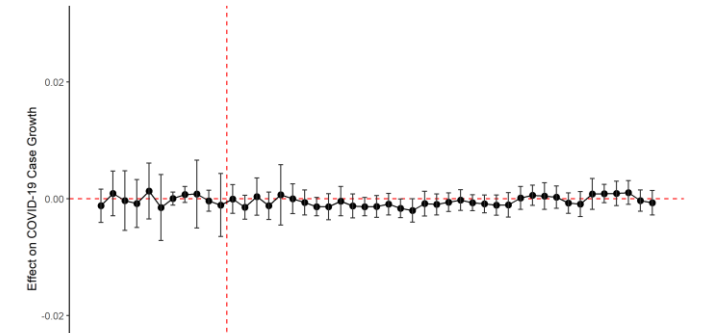
Notes: Estimate is generated using Callaway Sant'Anna estimates. Control group includes never and not yet adopters. Bar lines represents 95% confidence intervals generated using bootstrapped standard errors.

Appendix Figure 15A Robustness of Event-Study Analysis to Use of Alternative Definitions of COVID-19 Cases, Using Callaway and Sant'Anna Estimates

Panel (a): Cumulative Daily Growth
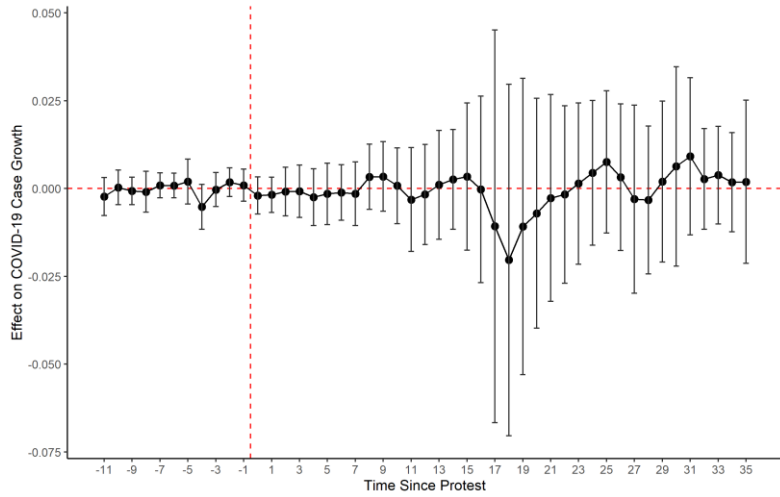
Panel (b): New Daily Cases
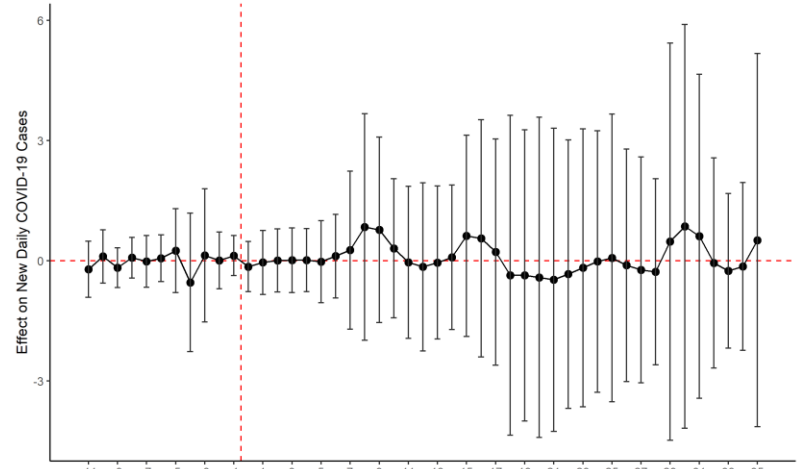
Panel (c): New Seven Day Moving Average Cases
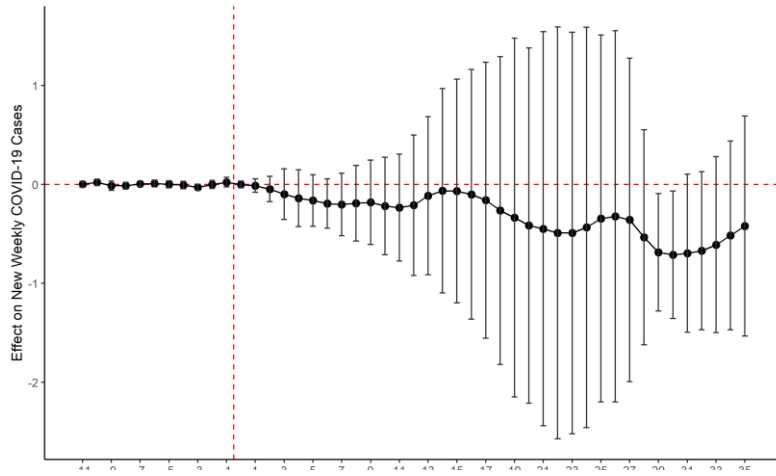
Panel (d): New Weekly Cases
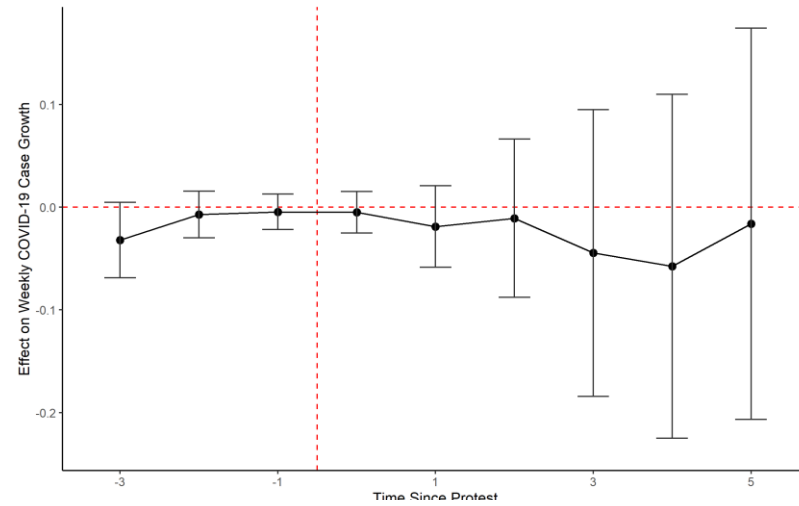
Notes: Control group includes never and not yet adopters. Bar lines represents 95% confidence intervals generated using bootstrapped standard errors.

Appendix Figure 15B: Robustness of Event-Study Analysis to Use of Alternative Definitions of COVID-19 Deaths, Using Callaway and Sant'Anna (2021) Estimates

Panel (a): Cumulative Daily Growth
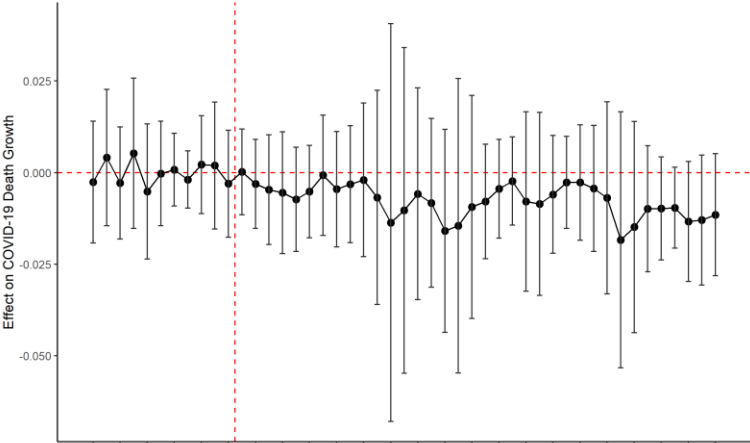
Panel (b): New Daily Deaths
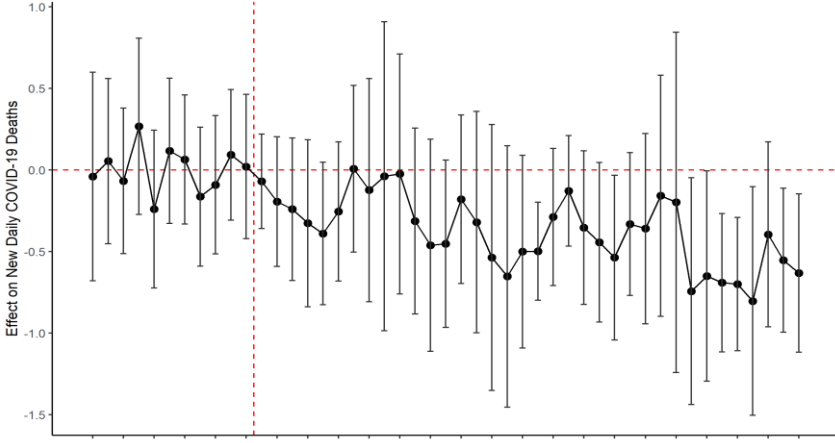
Panel (c): New Seven Day Moving Average Deaths
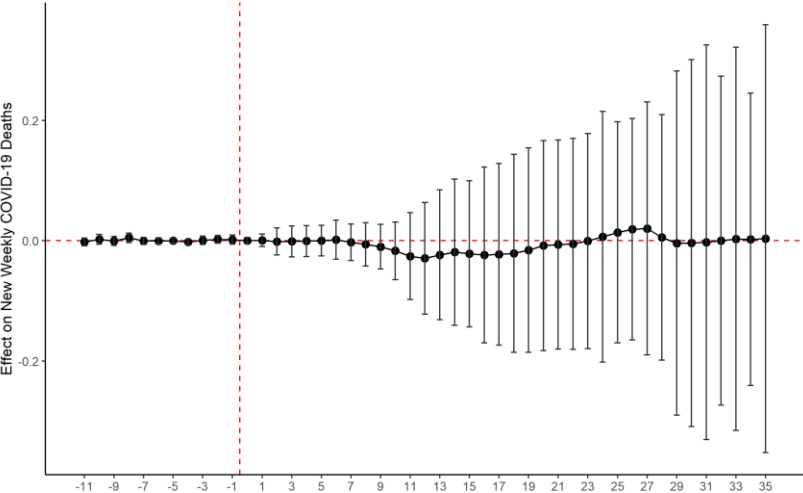
Panel (d): New Weekly Deaths
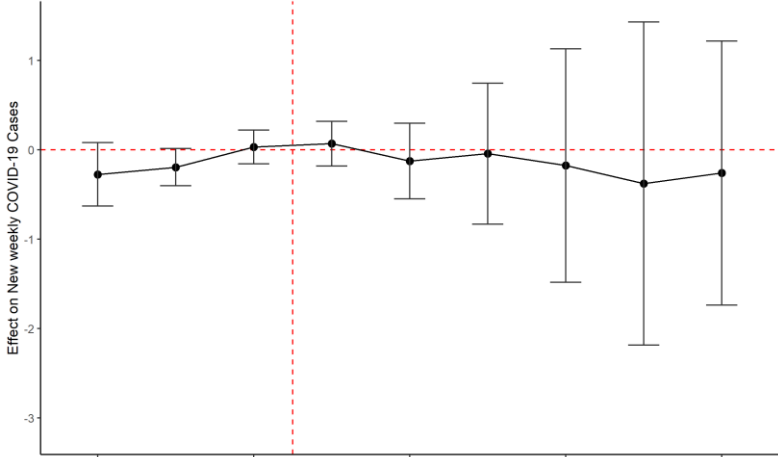
Notes: Estimate is generated using Callaway Sant'Anna estimates. Control group includes never and not yet adopters. Bar lines represents 95% confidence intervals generated using bootstrapped standard errors.

Appendix Figure 15C. Event-Study Analyses Generated from Poisson Regressions of Cumulative COVID-19 Cases and Deaths

Panel (a): Moving Average COVID-19 Cases: No Controls
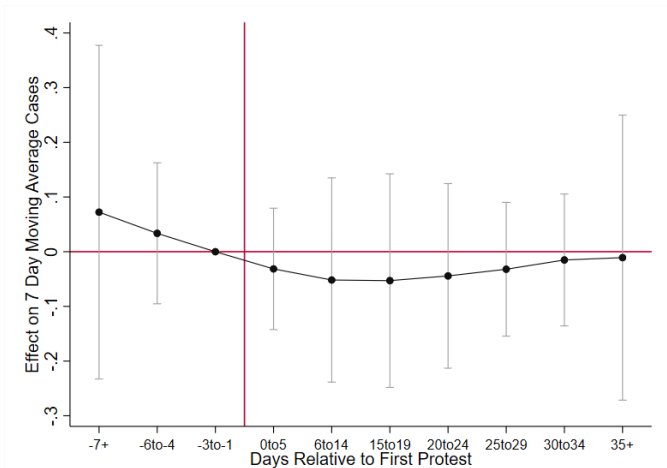
Panel (b): Moving Average COVID-19 Cases: Full Controls
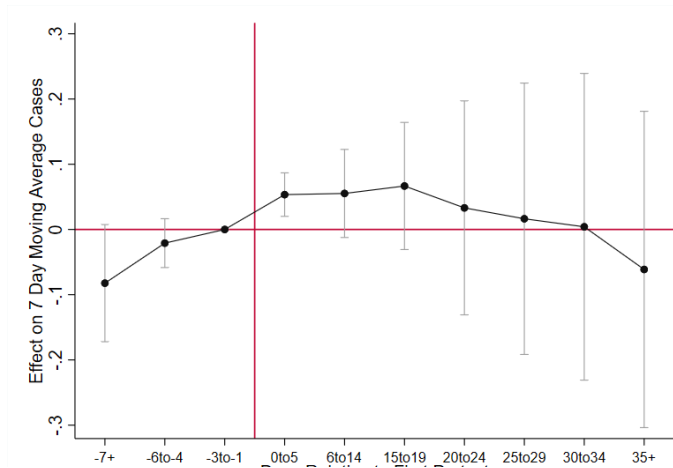
Panel (c): Moving Average COVID-19 Deaths: No Controls
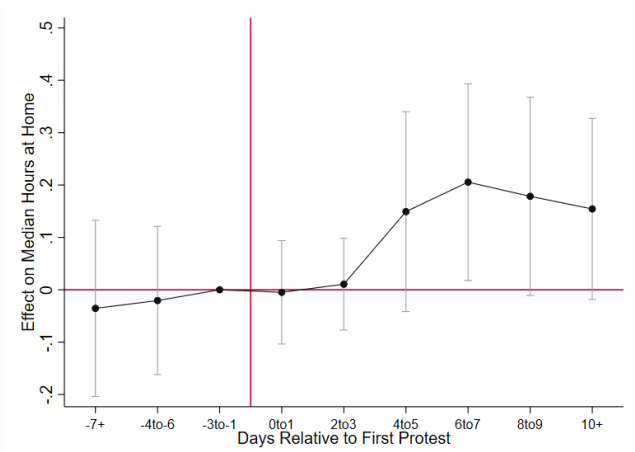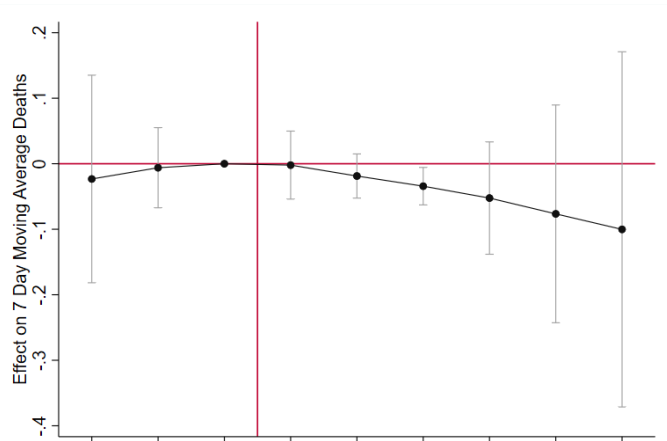
Panel (d): Moving Average COVID-19 Deaths: Full Controls
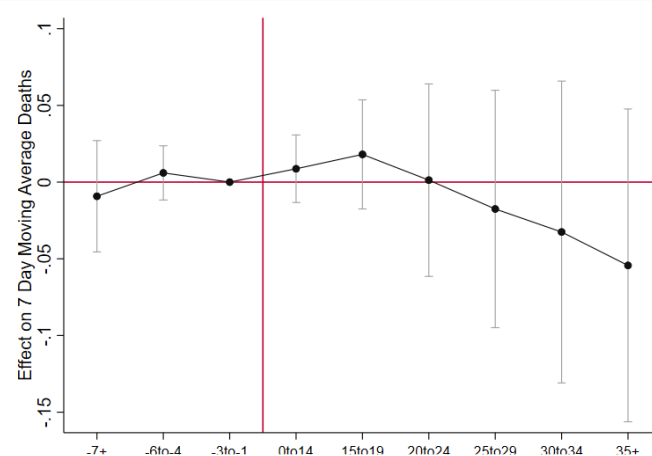
Note. Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell.

Appendix Table 1A: Detailed Distribution of Counties by

Timing of BLM Protest Onset

Date	Number of Counties
May 25 through May 29	66
May 30th	81
May 31st through June 1	41
June 2 through June 8	15
June 9 or Later	2
No BLM Protest Over Sample Period	4

Appendix Table 1B. Distribution of Counties by Timing of BLM Protest Onset

	Urbanicity Rate	Pre-Floyd COVID-19 Per 100K	Pre-Floyd COVID-19 Case Growth	Median HH Income	Poverty Rate	Unemployment Rate	% White
			Panel I: Weighted				
Earliest BLM Protest Onset	97.6	421.0	0.021	73958.4	12.8	9.1	70.3
Modal BLM Protest Onset	93.5	428.9	0.018	70000.0	12.2	8.2	75.8
Later Onset / Never Held	94.1	558.2	0.014	84831.5	9.0	7.9	78.8
			Panel II: Unweighted				
Earliest BLM Protest Onset	95.8	410.0	0.021	70316.8	13.3	8.3	69.5
Modal BLM Protest Onset	90.6	393.3	0.019	65788.5	12.9	7.8	76.4
Later Onset / Never Held	92.0	468.9	0.016	79558.6	9.8	7.8	79.7

Note: Panel I presents descriptive stats, which are weighted by each county's population. Panel II presents descriptive states, which are not weighted.

Appendix Table 2A. Sensitivity of Difference-in-Differences Estimates of Urban Protests on Social Distancing to Spatial Controls

	Stay-at-Home Full-Time	Median Hours at Home
	(1)	(2)
	Panel I: Controls for County-Specific Linear Time Trends	
0-1 Days After Protest	0.039	-0.003
	(0.146)	(0.035)
2-3 Days After Protest	0.011	-0.005
	(0.182)	(0.057)
4-7 Days After Protest	0.481	0.112
	(0.442)	(0.134)
8+ Days After Protest	0.161	0.054
	(0.475)	(0.159)
	Panel II: Controls for State-by-Day Fixed Effects	
0-1 Days After Protest	0.067	0.000
	(0.101)	(0.025)
2-3 Days After Protest	-0.228	-0.047
	(0.154)	(0.035)
4-7 Days After Protest	0.380	0.118*
	(0.241)	(0.061)
8+ Days After Protest	0.435*	0.137**
	(0.233)	(0.069)
N	6240	6240

Controls	Yes	Yes

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects as well as county specific linear time trends. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parentheses.

Appendix Table 3. Sensitivity of Difference-in-Differences Estimates of Urban Protests on Social Distancing to Inclusion of Border Counties

	Stay-at-Home Full-Time	Median Percent Time Spent at Home	Median Hours at Home
	(1)	(2)	(3)
0-1 Days After Protest	0.026	0.358***	0.033
	(0.097)	(0.130)	(0.032)
2-3 Days After Protest	-0.100	-0.052	0.020
	(0.133)	(0.172)	(0.030)
4-7 Days After Protest	0.404	0.437**	0.128*
	(0.273)	(0.215)	(0.070)
8+ Days After Protest	0.117	0.364	0.124*
	(0.253)	(0.343)	(0.068)
N	29430	29430	29430
Controls	Yes	Yes	Yes

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level
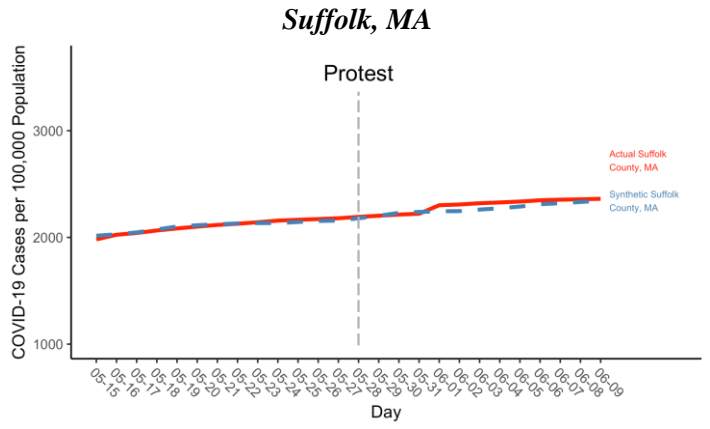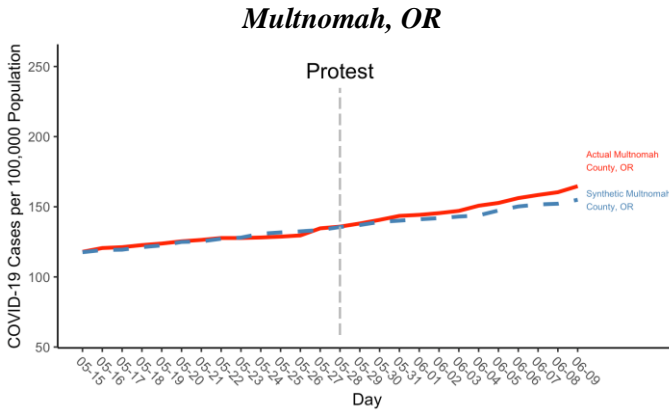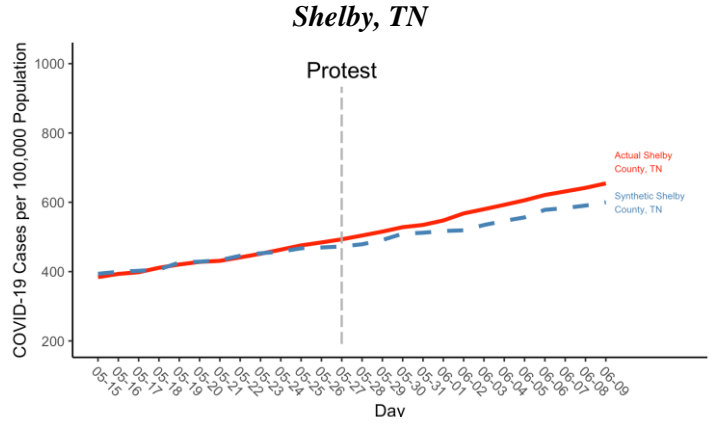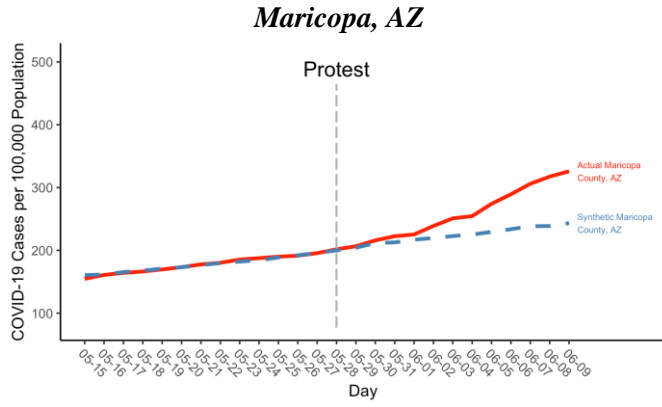
Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the primary treatment county-level, are reported inside the parentheses.

Appendix Table 4A. Heterogeneity in the Effects of BLM Protests on Social Distancing, Lagging Report of Violence vs Non-Violence

	Social Distancing			Foot Traffic		
	% Time Home	Median Hours at Home	% Time at Home	Restaurant + Bar	Retail	Bar
Panel I: Excludes State-Specific Linear Time Trends						
Violent	0.199+	0.036	0.301+	-0.018+	-0.008	-0.016
	(0.152)	(0.036)	(0.198)	(0.012)	(0.006)	(0.039)
Non-Violent	0.109	0.025	0.204	-0.009	0.003	0.019
	(0.112)	(0.029)	(0.143)	(0.007)	(0.005)	(0.025)
	6240	6240	6240	6240	6240	6240
Panel II: Includes State-Specific Linear Time Trends						
Violent	0.224	0.040	0.196	-0.048***	-0.033***	-0.036**
	(0.192)	(0.054)	(0.241)	(0.014)	(0.008)	(0.015)
Non-Violent	0.057	0.000	0.186	-0.010	0.003	-0.006
	(0.127)	(0.032)	(0.152)	(0.007)	(0.005)	(0.006)
	6240	6240	6240	6240	6240	6240

+ Significant at the 10% level, * Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the primary treatment county-level, are reported inside the parentheses.

Appendix Table 4B. Estimated Effect of BLM Protests on Foot Traffic at Restaurants and Bars, by Time-Invariant Measure of Whether Any Protest Occurred at Night

	Restaurant + Bars		Bars	
	(1)		(2)	
	$T_c=1$	$T_c=0$	$T_c=1$	$T_c=0$
	Cities with Night Protests ($T_c=1$) vs.			
	Cities without Night Protests ($T_c=0$)			
0-1 Days After Protest	-0.005	-0.012	0.018	0.070
	(0.007)	(0.010)	(0.024)	(0.055)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.555]		[.330]	
2-3 Days After Protest	-0.028**	-0.010	-0.038	0.029
	(0.011)	(0.014)	(0.039)	(0.058)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.144]		[.175]	
4-7 Days After Protest	-0.036	-0.018	-0.034	0.013
	(0.025)	(0.023)	(0.055)	(0.081)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.136]		[.466]	
8+ Days After Protest	-0.043*	-0.035	-0.052	-0.011
	(0.025)	(0.028)	(0.072)	(0.102)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.561]		[.601]	

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the primary treatment county-level, are reported inside the parentheses.

Appendix Table 4C. Estimated Effect of BLM Protests on Restaurant and Bar Foot Traffic, Using Time-Varying Measure of Timing of BLM Protest

	(1) Restaurant + Bars	(2) Bars
AM	0.003	0.001
	(0.006)	(0.021)
PM	-0.005	-0.033*
	(0.005)	(0.018)
Night	-0.019***	-0.036*
	(0.006)	(0.019)
	6240	6240

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the primary treatment county-level, are reported inside the parentheses.

Appendix Table 5. Heterogeneity in the Effects of Urban Protests on Social Distancing

	Stay-at-Home Full-Time		Median Percent Time Spent at Home		Median Hours Spent at Home	
	(1)		(2)		(3)	
	T_c=1	T_c=0	T_c=1	T_c=0	T_c=1	T_c=0

Panel I: Cities with Protest on May 28 or Before (T_c=1) vs.
Cities with Protest After May 28 (T_c=0)

	T_c=1	T_c=0	T_c=1	T_c=0	T_c=1	T_c=0
0-1 Days After Protest	0.404**	-0.012	0.624***	0.137	0.038	0.009
	(0.189)	(0.154)	(0.235)	(0.159)	(0.052)	(0.035)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.075]*		[.069]*		[.555]	
2-3 Days After Protest	0.137	0.090	0.543	-0.129	0.101	-0.001
	(0.406)	(0.184)	(0.488)	(0.164)	(0.109)	(0.042)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.914]		[.193]		[.404]	
4-7 Days After Protest	1.259***	0.262	0.962***	0.055	0.274**	0.075
	(0.423)	(0.171)	(0.266)	(0.201)	(0.114)	(0.062)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.012]**		[.001]***		[.016]	
8+ Days After Protest	0.354	0.160	0.600**	0.060	0.106*	0.085
	(0.373)	(0.237)	(0.269)	(0.297)	(0.062)	(0.082)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.657]		[.024]		[.808]	

Panel II: Cities with Population ≥ 500K (T_c=1) vs.
Cities with Population < 500K (T_c=0)

	T_c=1	T_c=0	T_c=1	T_c=0	T_c=1	T_c=0
0-1 Days After Protest	0.089	0.068	0.264	0.303*	-0.008	0.022
	(0.195)	(0.145)	(0.206)	(0.169)	(0.039)	(0.043)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.926]		[.862]		[.515]	

	Stay-at-Home Full-Time		Median Percent Time Spent at Home		Median Hours Spent at Home	
	(1)		(2)		(3)	
	$T_c=1$	$T_c=0$	$T_c=1$	$T_c=0$	$T_c=1$	$T_c=0$
2-3 Days After Protest	0.150	0.049	0.377	-0.010	-0.010	0.075
	(0.322)	(0.189)	(0.349)	(0.183)	(0.064)	(0.052)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.779]		[.233]		[.208]	
4-7 Days After Protest	0.763**	0.438*	0.888***	0.103	0.229**	0.138*
	(0.383)	(0.225)	(0.259)	(0.211)	(0.113)	(0.078)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.218]		[.000]***		[.119]	
8+ Days After Protest	0.294	0.433	0.537	0.186	0.149*	0.155
	(0.280)	(0.278)	(0.340)	(0.370)	(0.078)	(0.101)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.599]		[.045]**		[.933]	

Panel III: Counties with ≥ Mean Share of Non-Hispanic Whites ($T_c=1$) vs. Counties with < Mean Share of Non-Hispanic Whites ($T_c=0$)

0-1 Days After Protest	0.196	0.018	0.357*	0.218	0.003	0.001
	(0.194)	(0.126)	(0.184)	(0.159)	(0.047)	(0.037)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.373]		[.443]		[.966]	
2-3 Days After Protest	-0.032	0.187	-0.282	0.364	0.028	0.006
	(0.182)	(0.228)	(0.199)	(0.245)	(0.052)	(0.049)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.390]		[.003]***		[.678]	
4-7 Days After Protest	0.340	0.761**	-0.179	0.802***	0.147*	0.150
	(0.251)	(0.342)	(0.232)	(0.247)	(0.079)	(0.104)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.054]*		[.000]***		[.948]	
8+ Days After Protest	0.617**	0.308	0.240	0.477	0.231**	0.101

	Stay-at-Home Full-Time (1)		Median Percent Time Spent at Home (2)		Median Hours Spent at Home (3)	
	T$_c$=1	T$_c$=0	T$_c$=1	T$_c$=0	T$_c$=1	T$_c$=0
	(0.312)	(0.269)	(0.392)	(0.368)	(0.103)	(0.088)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.122]		[.142]		[.008]***	

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parentheses.

Appendix Table 6. Estimated Effect of Urban Protests on Social Distancing,

by Pre-George Floyd Death (May 10-24) County-Level COVID-19 Growth Rate

	(1)	(2)	(3)
	Lower 3rd Pre-Floyd Case Growth	Middle 3rd Pre-Floyd Case Growth	Upper 3rd Pre-Floyd Case Growth
Panel I: Percent Staying at Home Full-Time			
0 to 1 Days After	0.211	-0.161	0.161
	(0.284)	(0.262)	(0.188)
2 to 3 Days After	-0.104	0.056	0.303
	(0.358)	(0.217)	(0.248)
4 to 7 Days After	0.301	0.138	1.470**
	(0.285)	(0.242)	(0.616)
8+ Days After	0.357	-0.138	1.439**
	(0.377)	(0.354)	(0.714)
Panel II: Median Percent of Time at Home			
0 to 1 Days After	0.432	0.214	0.023
	(0.305)	(0.195)	(0.253)
2 to 3 Days After	-0.461	-0.043	0.440
	(0.296)	(0.168)	(0.400)
4 to 7 Days After	0.207	0.278	0.812
	(0.313)	(0.251)	(0.530)
8+ Days After	0.266	-0.146	1.353
	(0.488)	(0.265)	(0.937)
Panel III: Median Hours at Home			
0 to 1 Days After	0.042	0.009	0.013
	(0.085)	(0.048)	(0.056)

2 to 3 Days After	-0.134*	-0.000	0.161**
	(0.078)	(0.056)	(0.076)
4 to 7 Days After	0.004	0.093	0.398**
	(0.062)	(0.067)	(0.200)
8+ Days After	-0.048	0.068	0.412*
	(0.091)	(0.074)	(0.228)
N	6240	6240	6240

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parentheses. Pre-treatment growth is defined as the change in COVID-19 case rate between May 10 and May 24.

Appendix Table 7. Heterogeneity in the Effects of Urban Protests on Foot Traffic

	Stay-at-Home Full-Time		Median Percent Time Spent at Home		Median Hours Spent at Home	
	(1)		(2)		(3)	
	$T_c=1$	$T_c=0$	$T_c=1$	$T_c=0$	$T_c=1$	$T_c=0$
Panel I: Cities with Violent Protests ($T_c=1$) vs. Cities with Peaceful Protests ($T_c=0$)						
0-1 Days After Protest	-0.006	-0.018	0.010	-0.001	0.007	-0.019
	(0.007)	(0.015)	(0.007)	(0.011)	(0.007)	(0.022)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.359]		[.425]		[.218]	
2-3 Days After Protest	-0.026**	-0.054***	-0.019**	-0.035**	-0.008	-0.031
	(0.012)	(0.019)	(0.008)	(0.016)	(0.015)	(0.028)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.041]**		[.263]		[.271]	
4-7 Days After Protest	-0.041	-0.032	-0.030	-0.025	-0.038	-0.037
	(0.026)	(0.026)	(0.021)	(0.021)	(0.035)	(0.037)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.481]		[.588]		[.944]	
8+ Days After Protest	-0.050*	-0.062*	-0.034*	-0.048**	-0.038	-0.061
	(0.027)	(0.031)	(0.021)	(0.024)	(0.038)	(0.043)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.517]		[.206]		[.164]	
Panel II: Cities with Persistent Protests ($T_c=1$) vs. Cities with Temporary Protests ($T_c=0$)						
0-1 Days After Protest	-0.008	-0.002	0.008	0.009	0.003	0.006
	(0.008)	(0.012)	(0.008)	(0.009)	(0.008)	(0.016)

	Stay-at-Home Full-Time		Median Percent Time Spent at Home		Median Hours Spent at Home	
	(1)		(2)		(3)	
	T$_c$=1	T$_c$=0	T$_c$=1	T$_c$=0	T$_c$=1	T$_c$=0
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.671]		[.957]		[.857]	
2-3 Days After Protest	-0.026**	-0.039**	-0.019**	-0.025*	-0.010	-0.011
	(0.012)	(0.019)	(0.009)	(0.013)	(0.015)	(0.024)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.364]		[.615]		[.974]	
4-7 Days After Protest	-0.040	-0.032	-0.030	-0.025	-0.039	-0.022
	(0.026)	(0.024)	(0.021)	(0.020)	(0.035)	(0.035)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.529]		[.618]		[.350]	
8+ Days After Protest	-0.049*	-0.049*	-0.034*	-0.033	-0.036	-0.026
	(0.026)	(0.028)	(0.020)	(0.023)	(0.037)	(0.042)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.980]		[.966]		[.613]	

Panel III: Protest Cities with Size >1,000 (T$_c$=1) vs.

Protest Cities with Size <1,000 (T$_c$=0)

0-1 Days After Protest	-0.006	-0.006	0.011	0.004	0.007	-0.002
	(0.008)	(0.009)	(0.007)	(0.008)	(0.008)	(0.012)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[1.000]		[.474]		[.467]	
2-3 Days After Protest	-0.026**	-0.030**	-0.017**	-0.026**	-0.005	-0.022
	(0.012)	(0.015)	(0.009)	(0.011)	(0.015)	(0.020)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.704]		[.426]		[.235]	
4-7 Days After Protest	-0.037	-0.038*	-0.028	-0.033*	-0.036	-0.040
	(0.026)	(0.022)	(0.021)	(0.019)	(0.035)	(0.032)

	Stay-at-Home Full-Time (1)		Median Percent Time Spent at Home (2)		Median Hours Spent at Home (3)	
	T_c=1	T_c=0	T_c=1	T_c=0	T_c=1	T_c=0
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.889]		[.597]		[.718]	
8+ Days After Protest	-0.046*	-0.059**	-0.032	-0.045**	-0.034	-0.051
	(0.026)	(0.026)	(0.020)	(0.021)	(0.037)	(0.039)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.169]		[.075]*		[.193]	

Panel IV: Cities with a Curfew (T_c=1) vs. Cities without a Curfew (T_c=0)

0-1 Days After Protest	-0.004	-0.015	0.013	0.000	0.010	-0.008
	(0.009)	(0.010)	(0.008)	(0.007)	(0.008)	(0.011)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.277]		[.147]		[.112]	
2-3 Days After Protest	-0.031**	-0.025*	-0.024***	-0.012	-0.014	-0.002
	(0.013)	(0.013)	(0.009)	(0.010)	(0.015)	(0.018)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.608]		[.237]		[.370]	
4-7 Days After Protest	-0.042	-0.031	-0.030	-0.024	-0.038	-0.028
	(0.027)	(0.021)	(0.021)	(0.017)	(0.036)	(0.030)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.351]		[.496]		[.495]	
8+ Days After Protest	-0.045*	-0.053**	-0.027	-0.044**	-0.027	-0.050
	(0.026)	(0.026)	(0.019)	(0.021)	(0.036)	(0.039)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.504]		[.022]**		[.051]*	

	Stay-at-Home Full-Time (1)		Median Percent Time Spent at Home (2)		Median Hours Spent at Home (3)	
	T$_c$=1	T$_c$=0	T$_c$=1	T$_c$=0	T$_c$=1	T$_c$=0

<table>
<tr><td colspan="7">Panel V: States with a Mask Mandate (T_c=1) vs. States without a Mask Mandate (T_c=0)</td></tr>
</table>

0-1 Days After Protest	-0.023**	-0.003	0.008	0.008	-0.008	0.007
	(0.011)	(0.008)	(0.008)	(0.007)	(0.013)	(0.008)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.102]		[.961]		[.264]	
2-3 Days After Protest	-0.048**	-0.024**	-0.020	-0.021***	-0.029	-0.005
	(0.019)	(0.012)	(0.019)	(0.008)	(0.023)	(0.015)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.175]		[.936]		[.257]	
4-7 Days After Protest	-0.024	-0.043*	0.001	-0.037*	-0.030	-0.039
	(0.024)	(0.026)	(0.020)	(0.020)	(0.033)	(0.035)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.190]		[.004]***		[.621]	
8+ Days After Protest	-0.045	-0.051*	-0.010	-0.038*	-0.034	-0.038
	(0.030)	(0.026)	(0.022)	(0.020)	(0.043)	(0.037)
P-Value for $\beta_{Tc=1} = \beta_{Tc=0}$	[.739]		[.019]**		[.881]	
N	6240		6240		6240	
Mean of DV	35.572		89.586		12.533	

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. The outcome is inverse hyperbolic sine of the foot-traffic measures. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care

services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parenthesis.

Appendix Table 8. Sensitivity of Difference-in-Differences Estimates of Urban Protests on COVID-19 Case Growth to Inclusion of Border Counties

	(1)
0-5 Days After Protest	0.0012
	(0.0009)
6-14 Days After Protest	0.0017
	(0.0014)
15-19 Days After Protest	0.0012
	(0.0019)
20-24 Days After Protest	0.0003
	(0.0023)
25-29 Days After Protest	-0.0002
	(0.0028)
30-34 Days After Protest	-0.0034
	(0.0035)
35+ Days After Protest	-0.0090
	(0.0061)
N	52842

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the primary treatment county-level, are reported inside the parentheses.

Appendix Table 9. Sensitivity of Difference-in-Differences Estimates of Urban Protests on Cases to Inclusion of Spatial Control

	(1)	(2)
	Panel I: COVID-19 Case Growth Rate	
0-5 Days After Protest	-0.0003	0.0021
	(0.0008)	(0.0013)
6-14 Days After Protest	-0.0009	0.0023
	(0.0014)	(0.0023)
15-19 Days After Protest	-0.0011	0.0036
	(0.0021)	(0.0034)
20-24 Days After Protest	-0.0010	0.0039
	(0.0027)	(0.0040)
25-29 Days After Protest	0.0001	0.0030
	(0.0029)	(0.0050)
30-34 Days After Protest	-0.0005	0.0023
	(0.0036)	(0.0058)
35+ Days After Protest	-0.0003	-0.0020
	(0.0008)	(0.0064)
	Panel II: COVID-19 Death Growth Rate	
0-14 Days After Protest	0.000	0.002
	(0.001)	(0.002)
15-19 Days After Protest	0.000	0.003
	(0.002)	(0.003)
20-24 Days After Protest	0.000	0.003
	(0.002)	(0.003)
25-29 Days After Protest	-0.002	0.001
	(0.003)	(0.004)
30-34 Days After Protest	-0.001	0.003
	(0.004)	(0.005)
35+ Days After Protest	-0.001	0.000
	(0.004)	(0.005)
N	11232	11232
State-Specific Linear Time Trend	Yes	No
State-by-Day Fixed Effects	No	Yes

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects, as well as county-specific linear time trend. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and

whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parentheses.

Appendix Table 10. Heterogeneity in the Effects of Urban Protests on Case Growth Rate

	(1) $T_c=1$	(2) $T_c=0$
	Panel I: Cities with Protest on May 28 or Before ($T_c=1$) vs. Cities with Protest After May 28 ($T_c=0$)	
0-5 Days After Protest	0.0006	0.0004
	(0.0020)	(0.0013)
6-14 Days After Protest	0.0000	0.0001
	(0.0035)	(0.0019)
15-19 Days After Protest	-0.0013	-0.0003
	(0.0040)	(0.0026)
20-24 Days After Protest	-0.0034	0.0004
	(0.0060)	(0.0029)
25-29 Days After Protest	-0.0037	0.0026
	(0.0041)	(0.0038)
30-34 Days After Protest	-0.0038	0.0013
	(0.0052)	(0.0042)
35+ Days After Protest	-0.0090*	-0.0023
	(0.0054)	(0.0045)
P-Value for Joint Test	[.398]	
	Panel II: Cities with Population ≥ 500K ($T_c=1$) vs. Cities with Population < 500K ($T_c=0$)	
0-5 Days After Protest	0.0007	0.0010
	(0.0017)	(0.0011)
6-14 Days After Protest	0.0012	0.0009
	(0.0022)	(0.0017)
15-19 Days After Protest	-0.0001	0.0018
	(0.0027)	(0.0025)
20-24 Days After Protest	0.0013	0.0005
	(0.0038)	(0.0029)
25-29 Days After Protest	-0.0005	0.0029
	(0.0035)	(0.0040)
30-34 Days After Protest	-0.0008	0.0004
	(0.0045)	(0.0046)
35+ Days After Protest	-0.0074	-0.0030
	(0.0051)	(0.0053)
P-Value for Joint Test	[.542]	

	(1) $T_c=1$	(2) $T_c=0$
	Panel III: Counties with ≥ Mean Share of Non-Hispanic Whites ($T_c=1$) *vs. Counties with < Mean Share of Non-Hispanic Whites ($T_c=0$)*	
0-5 Days After Protest	0.0006	0.0019
	(0.0013)	(0.0014)
6-14 Days After Protest	0.0010	0.0025
	(0.0021)	(0.0018)
15-19 Days After Protest	-0.0003	0.0034
	(0.0028)	(0.0025)
20-24 Days After Protest	-0.0011	0.0032
	(0.0033)	(0.0032)
25-29 Days After Protest	-0.0022	0.0039
	(0.0041)	(0.0038)
30-34 Days After Protest	-0.0048	0.0008
	(0.0049)	(0.0047)
35+ Days After Protest	-0.0091	-0.0063
	(0.0058)	(0.0053)
P-Value for Joint Test	[.113]	
N	11232	
Mean of DV	0.0212	

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parentheses.

Appendix Table 11. Estimated Effect of Urban Protests on COVID-19 Case Growth Rate, by Pre-George Floyd Death (May 10-24) County-Level COVID-19 Growth Rate

	(1)	(2)	(3)
	Lower 3rd Pre-Floyd Case Growth	Middle 3rd Pre-Floyd Case Growth	Upper 3rd Pre-Floyd Case Growth
0 to 5 Days After	-0.0004	0.0011	-0.0008
	(0.0019)	(0.0015)	(0.0024)
6 to 14 Days After	-0.0015	0.0016	-0.0014
	(0.0031)	(0.0024)	(0.0038)
15 to 19 Days After	-0.0021	0.0024	0.0000
	(0.0045)	(0.0033)	(0.0049)
20 to 24 Days After	-0.0054	0.0031	0.0026
	(0.0053)	(0.0029)	(0.0060)
25 to 29 Days After	-0.0055	0.0063	0.0018
	(0.0060)	(0.0039)	(0.0072)
30 to 34 Days After	-0.0055	0.0044	-0.0020
	(0.0063)	(0.0041)	(0.0085)
35+ Days After	-0.0073	0.0025	-0.0117
	(0.0065)	(0.0049)	(0.0080)
N	11232	11232	11232

* Significant at the 10% level, ** Significant at the 5% level, *** Significant at the 1% level

Notes: Estimate is generated using weighted least squares. All models include county and day fixed effects. State-level controls include: log testing rate, indicator for a SIPO, mask mandate, whether food industry reopened, whether retail store reopened, whether personal or pet care services reopened, and whether entertainment or activity reopened. County-level controls include: average temperature and an indicator for whether any precipitation fell. Standard errors, clustered at the county-level, are reported inside the parentheses. Pre-treatment growth is defined as the change in COVID-19 case rate between May 10 and May 24.