Online Appendix

"Risk Avoidance, Offsetting Community Effects, and COVID-19: Evidence from an Indoor Political Rally"

Journal of Risk and Uncertainty

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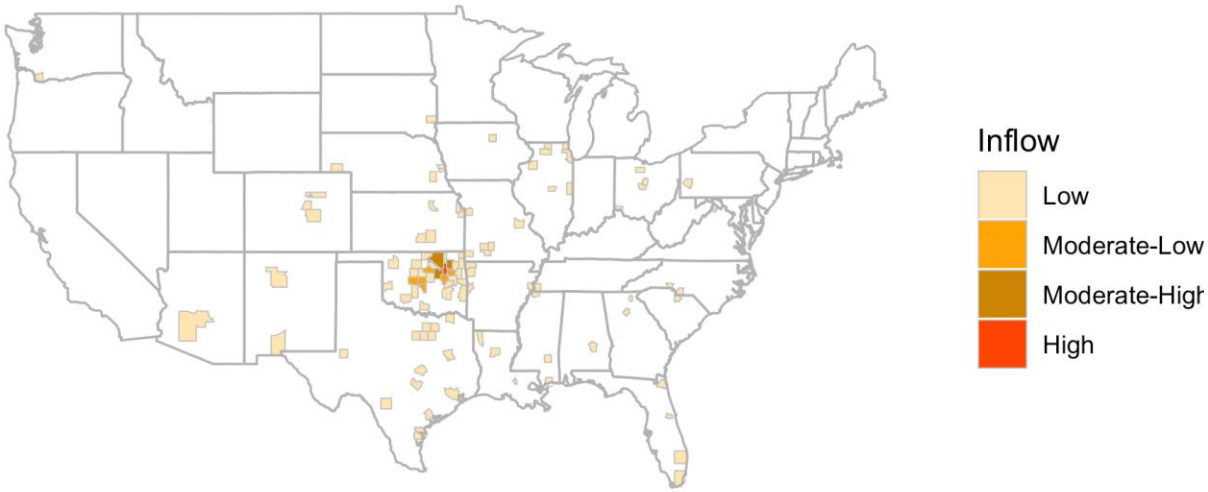
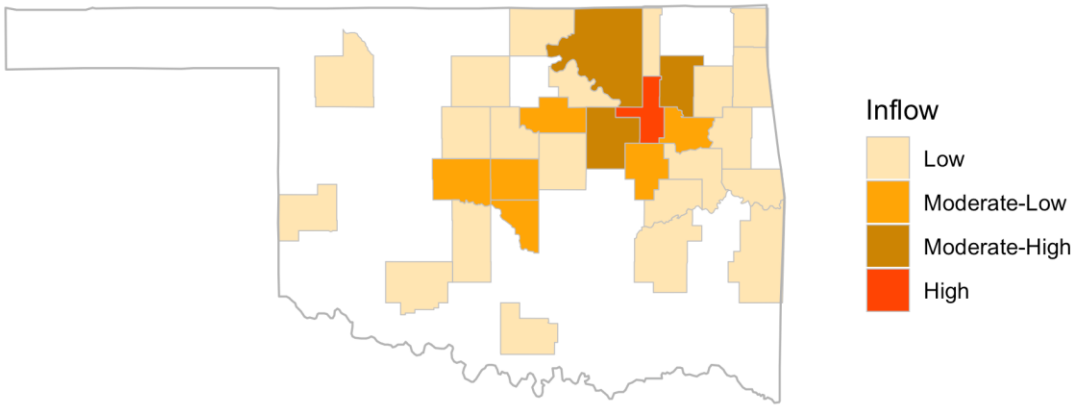
Appendix Figure 1. Distribution of Home Counties for Absolute Inflows to Treatment Census Block Groups on June 6, 2020

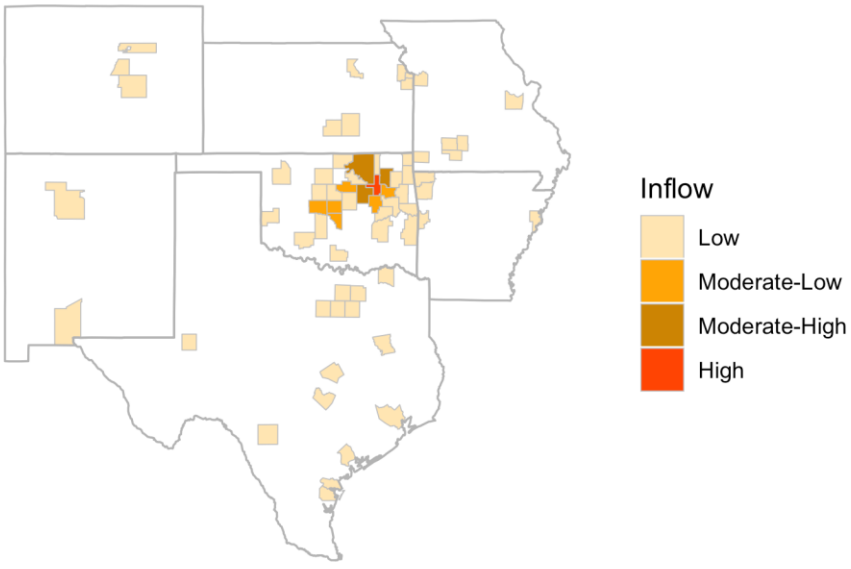
Panel (a): Home Counties Across U.S.



Panel (b): Home Counties Across Oklahoma

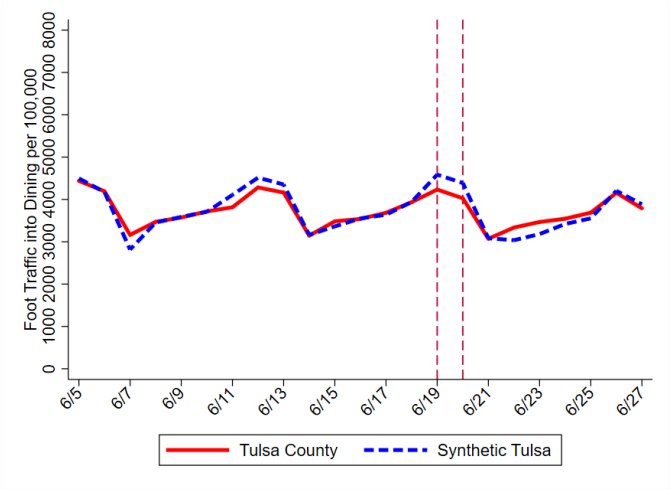


Panel (c): Home Counties Across Oklahoma and Border States

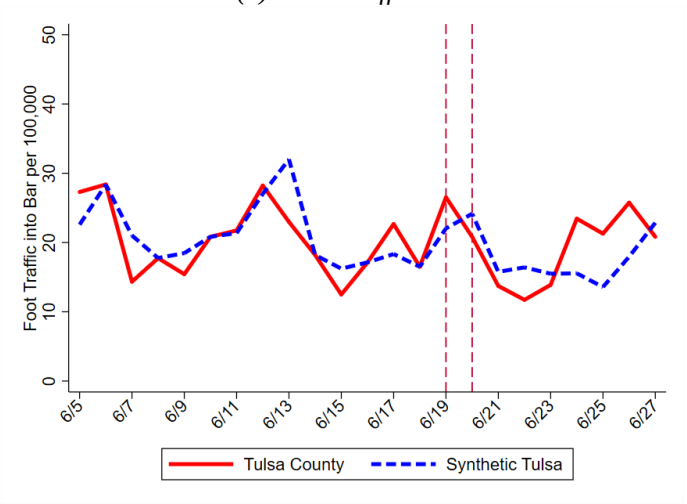


Appendix Figure 2. Synthetic Control Estimates of Effect of Tulsa Rally on Foot Traffic in Tulsa County

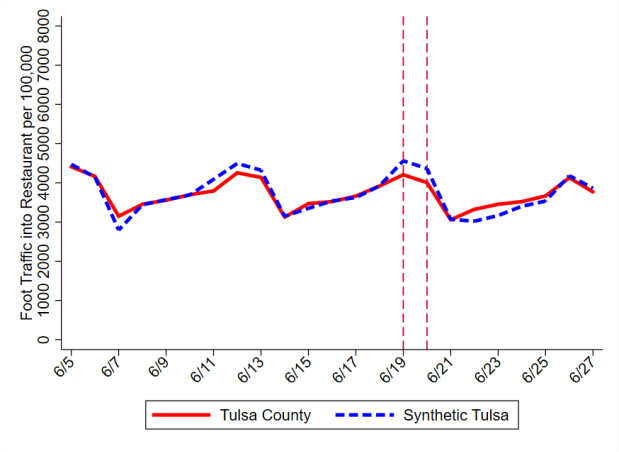
Panel (a): Foot Traffic into Restaurant + Bars



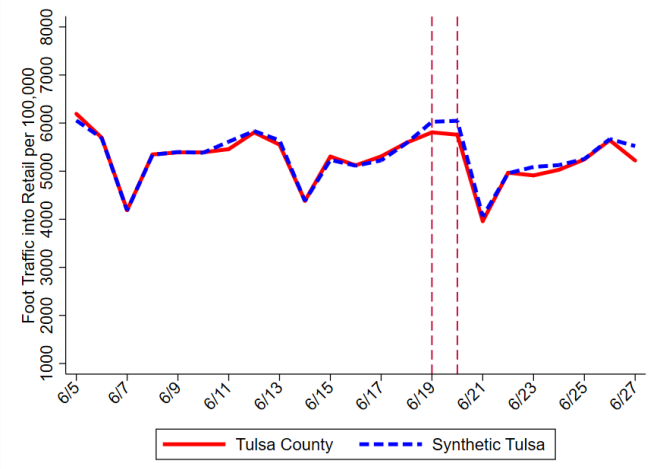
Panel (b): Foot Traffic into Bars



Panel (c): Foot Traffic into Restaurants



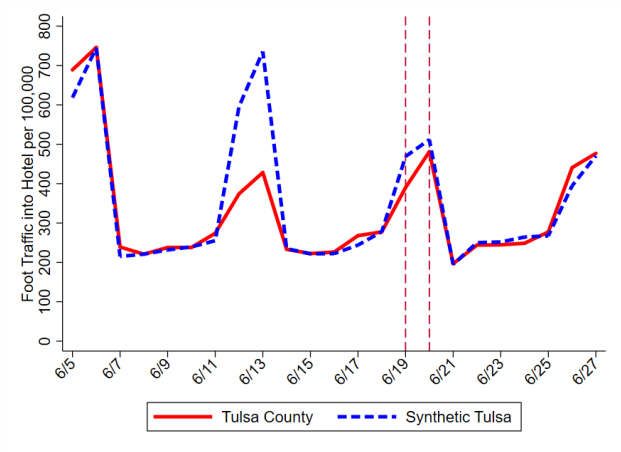
Panel (d): Foot Traffic into Retail



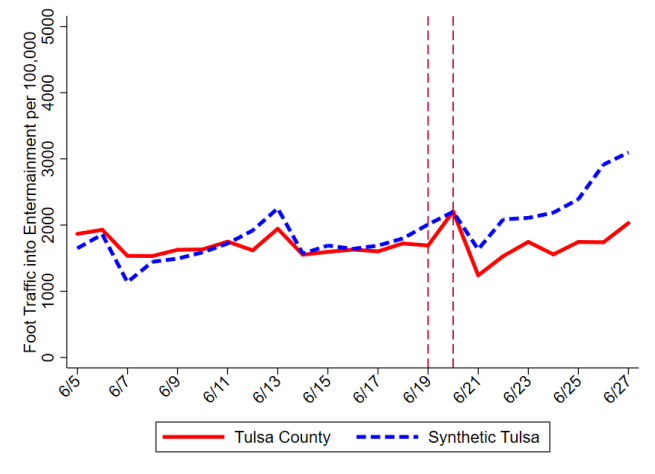
Note: The donor pool is comprised of primary counties (and their border counties) with urbanicity of ± 2.5 Tulsa County's urbanicity rate (95.2%) or weighted population density of ± 1,000 Tulsa County's density (3,250) and excludes counties in Oklahoma and in Oklahoma's border states, as well as counties where a home resident was detected (via smartphone using SafeGraph data) in the treatment CBGs on June 20, 2020.

Appendix Figure 2, Continued

Panel (e): *Foot Traffic into Hotels*



Panel (f): *Foot Traffic into Entertainment Venues*



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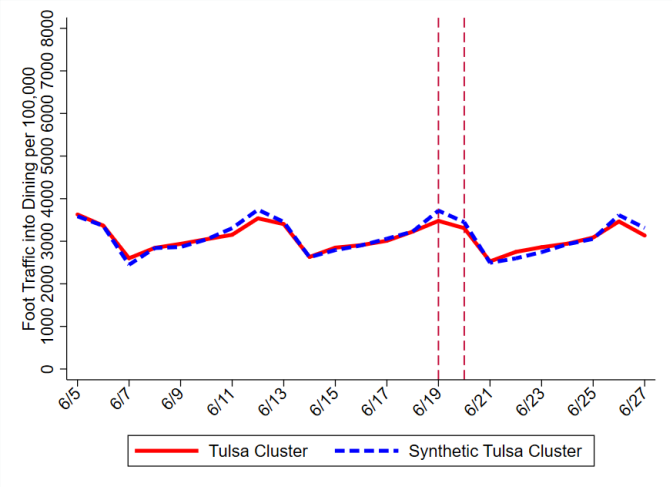
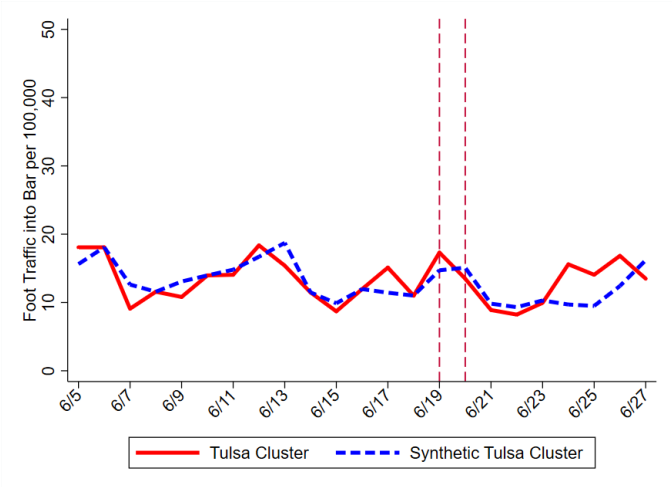
Appendix Figure 3. Synthetic Control Estimates of Effect of Tulsa Rally on Foot Traffic in Tulsa Cluster

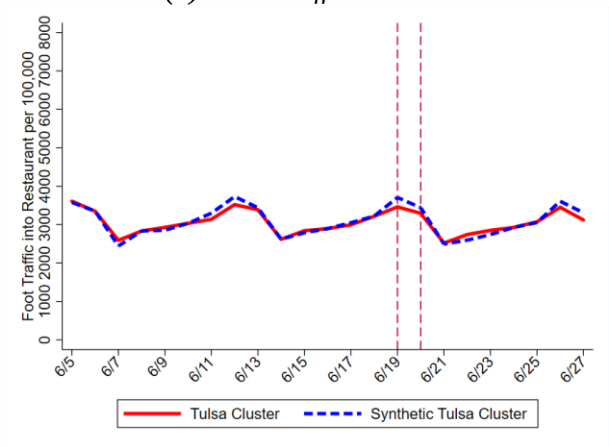
Panel (a): Foot Traffic into Restaurant + Bars



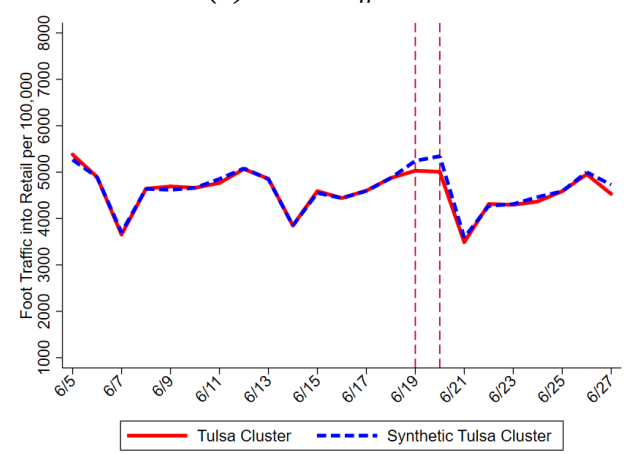
Panel (b): Foot Traffic into Bars



Panel (c): Foot Traffic into Restaurants



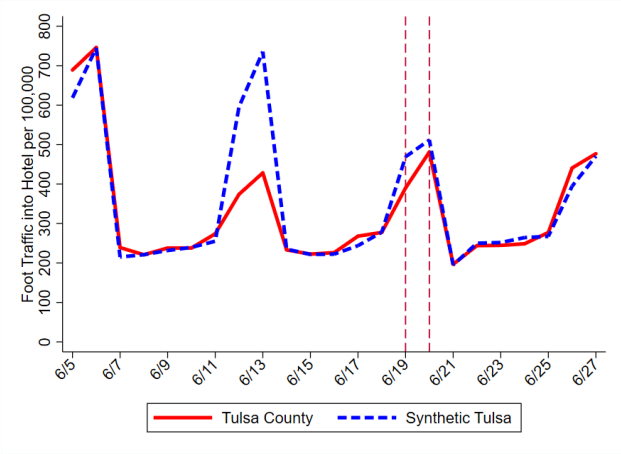
Panel (d): Foot Traffic into Retail



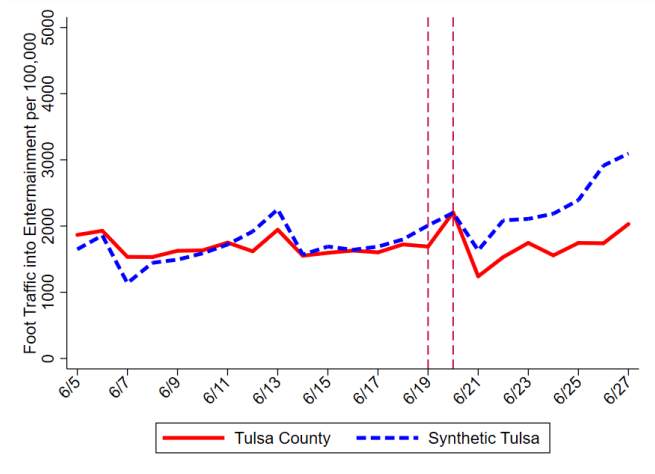
Note: The donor pool is comprised of primary counties (and their border counties) with urbanicity of ± 2.5 Tulsa County's urbanicity rate (95.2%) or weighted population density of ± 1,000 Tulsa County's density (3,250) and excludes counties in Oklahoma and in Oklahoma's border states, as well as counties where a home resident was detected (via smartphone using SafeGraph data) in the treatment CBGs on June 20, 2020.

Appendix Figure 3, Continued.

Panel (e): *Foot Traffic into Hotels*



Panel (f): *Foot Traffic into Entertainment Venues*



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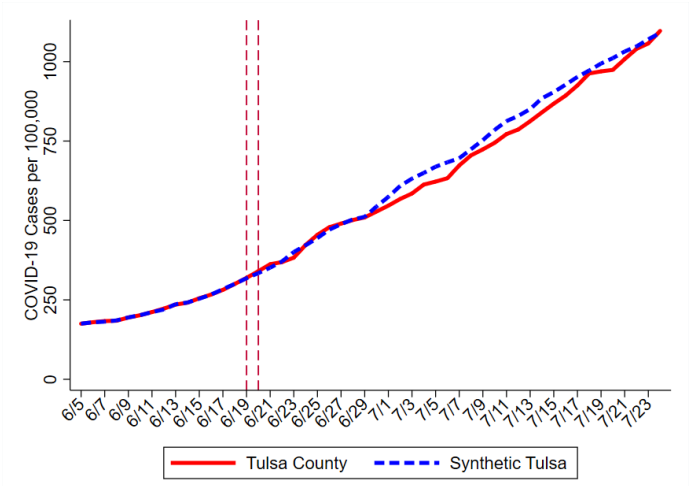
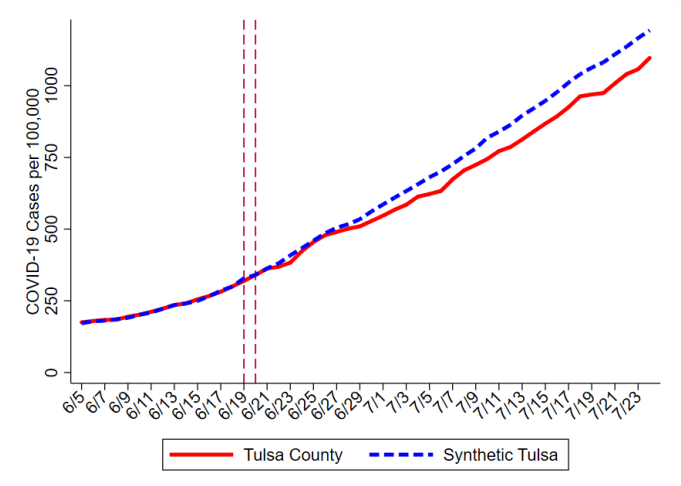
Appendix Figure 4. Sensitivity of Synthetic Control Estimates of Effect of Tulsa Rally on COVID-19 Cases in Tulsa County to Alternate State Testing Rate Matching

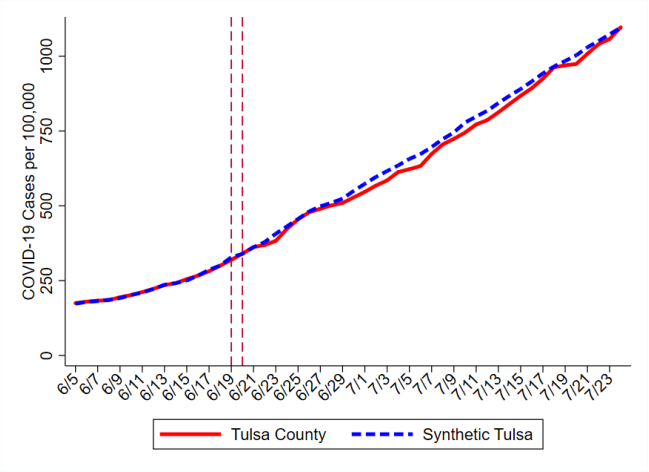
Panel (a): Matching on pre- and post- treatment mean



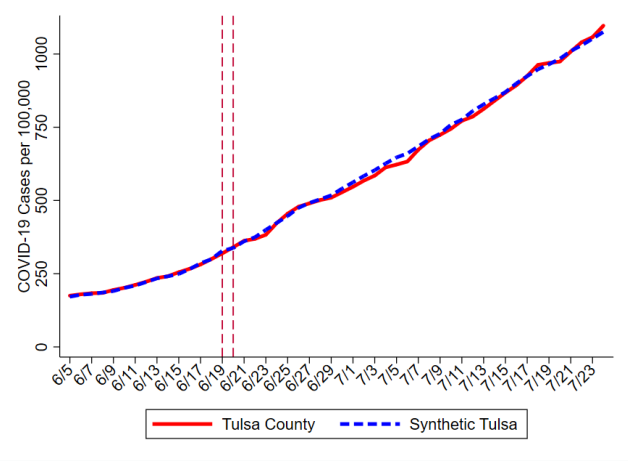
Panel (b): Matching on pre-treatment testing trend



Panel (c): Matching on pre & post-treatment testing trend



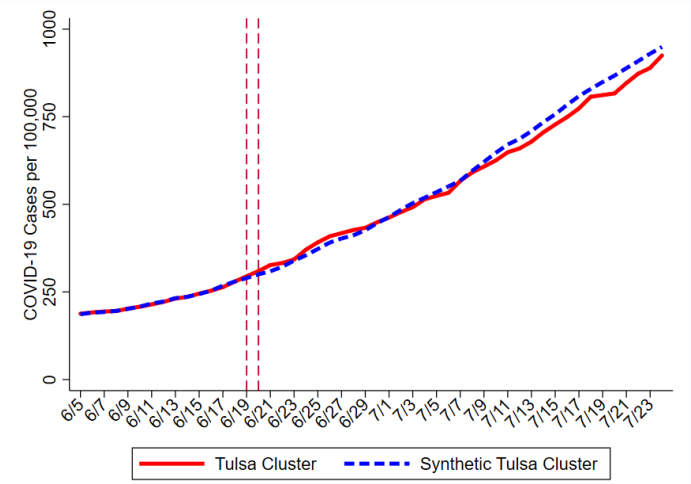
Panel (d): Matching on pre & post-treatment testing trend (More Days)



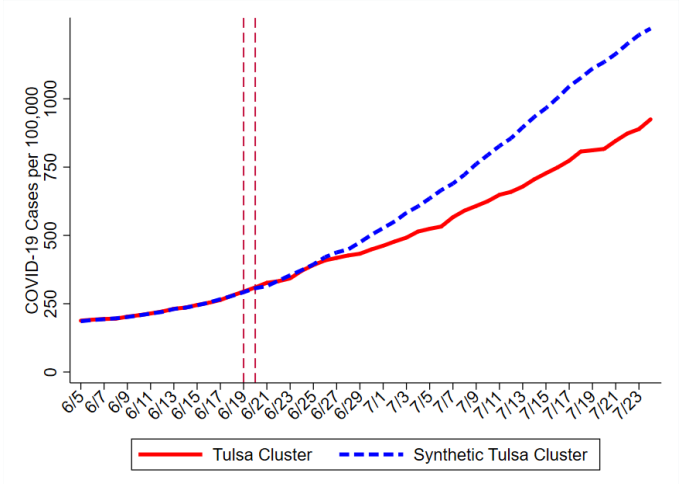
Note: The donor pool is comprised of primary counties (and their border counties) with urbanicity of ± 2.5 Tulsa County's urbanicity rate (95.2%) or weighted population density of ± 1,000 Tulsa County's density (3,250) and excludes counties in Oklahoma and in Oklahoma's border states, as well as counties where a home resident was detected (via smartphone using SafeGraph data) in the treatment CBGs on June 20, 2020. Panel (b) matches on COVID-19 testing rate on 6/6, 6/8, 6/10, 6/14, 6/16, and 6/18. Panel (c) matches on COVID-19 testing rate on 6/6, 6/14, 6/22, 6/28, 7/4, 7/12, and 7/20. Panel (d) matches on COVID-19 testing on 6/6, 6/12, 6/18, 6/24, 6/30, 7/6, 7/12, 7/18, and 7/24.

Appendix Figure 5. Sensitivity of Synthetic Control Estimates of Effect of Tulsa Rally on COVID-19 Cases in Tulsa County Cluster to Alternate State Testing Rate Matching

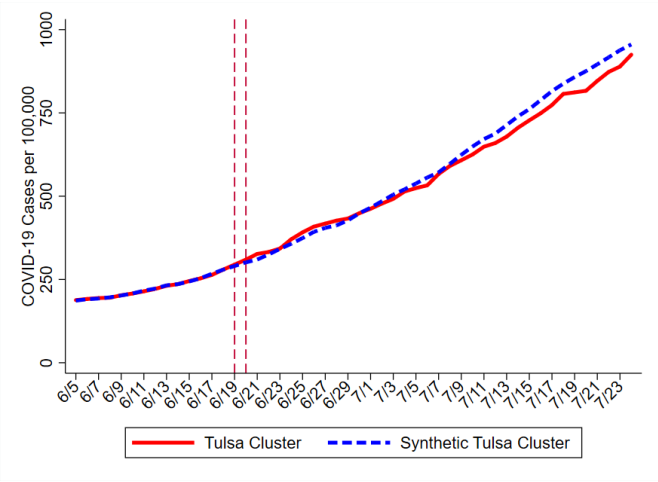
Panel (a): Matching on pre- and post- treatment mean



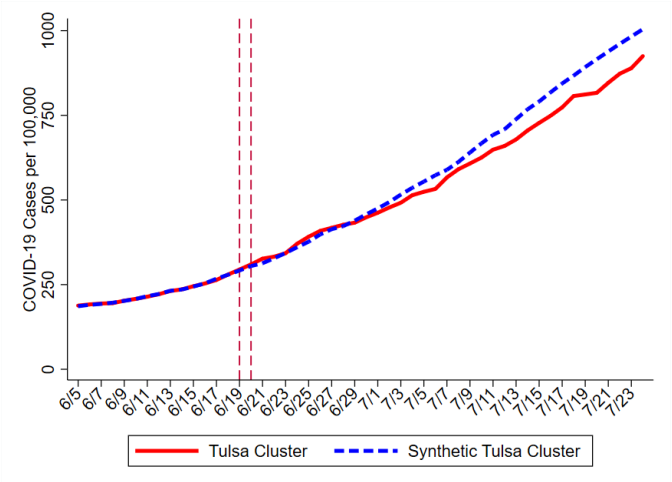
Panel (b): Matching on pre-treatment testing trend



Panel (c): Matching on pre & post-treatment testing trend



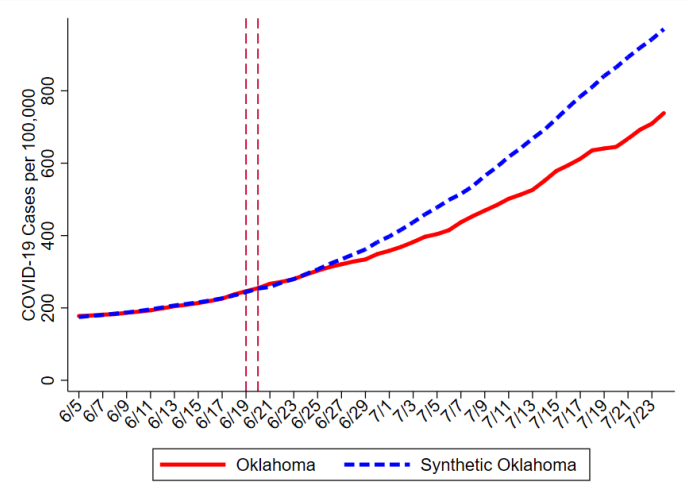
Panel (d): Matching on pre & post-treatment testing trend (More Days)



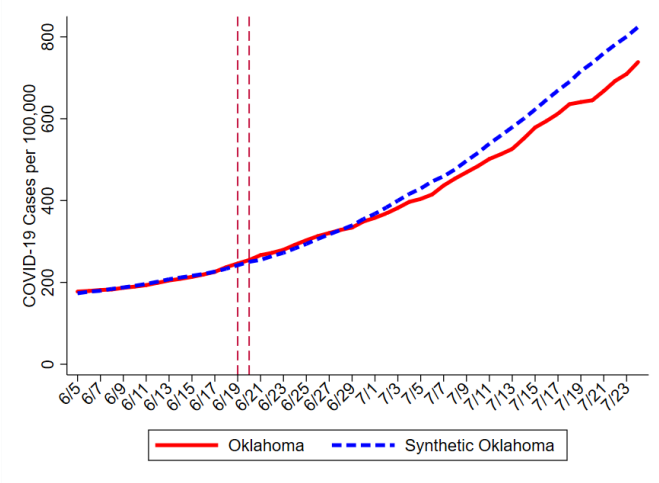
Note: The donor pool is comprised of primary counties (and their border counties) with urbanicity of ± 2.5 Tulsa County's urbanicity rate (95.2%) or weighted population density of ± 1,000 Tulsa County's density (3,250) and excludes counties in Oklahoma and in Oklahoma's border states, as well as counties where a home resident was detected (via smartphone using SafeGraph data) in the treatment CBGs on June 20, 2020. Panel (b) matches on COVID-19 testing rate on 6/6, 6/8, 6/10, 6/14, 6/16, and 6/18. Panel (c) matches on COVID-19 testing rate on 6/6, 6/14, 6/22, 6/28, 7/4, 7/12, and 7/20. Panel (d) matches on COVID-19 testing on 6/6, 6/12, 6/18, 6/24, 6/30, 7/6, 7/12, 7/18, and 7/24.

Appendix Figure 6. Sensitivity of Synthetic Control Estimates of Effect of Tulsa Rally on COVID-19 Cases in Oklahoma to Alternate State Testing Rate Matching

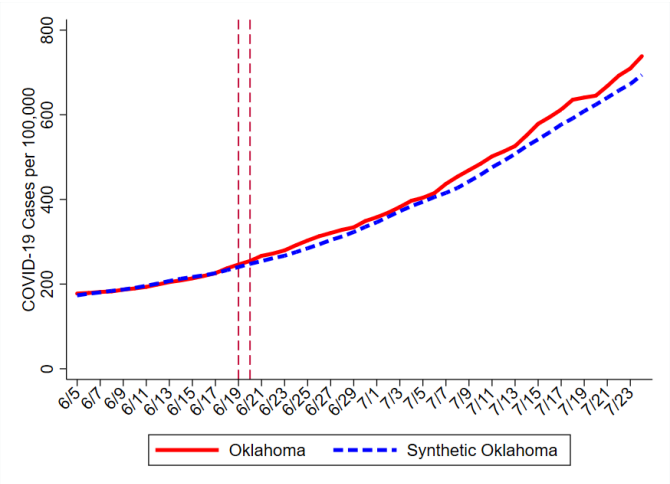
Panel (a): Matching on pre- and post- treatment mean



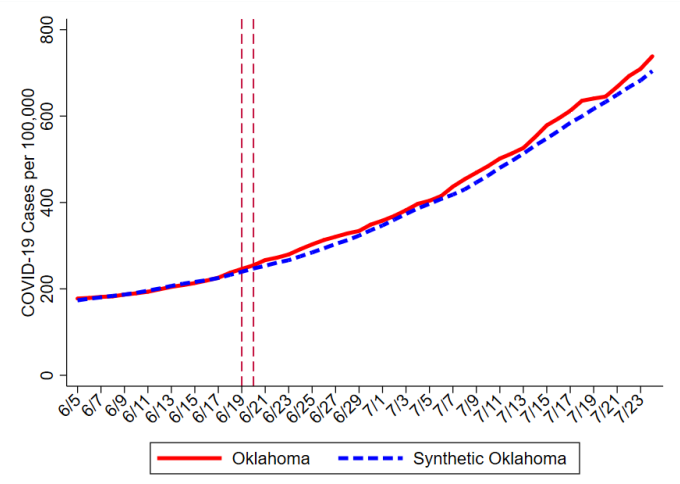
Panel (b): Matching on pre-treatment testing trend



Panel (c): Matching on pre & post-treatment testing trend



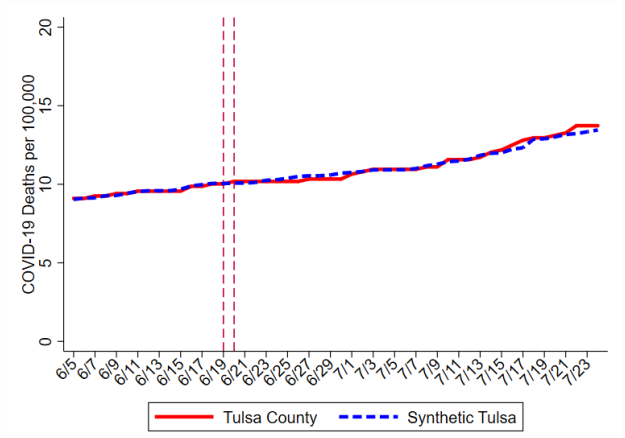
Panel (d): Matching on pre & post-treatment testing trend (More Days)



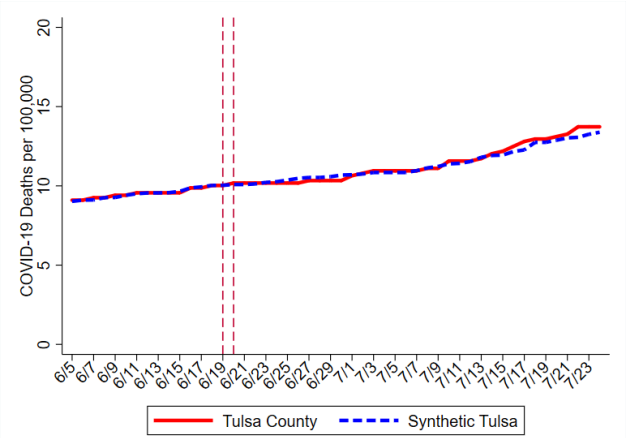
Note: The donor pool is comprised of states with urbanicity of ± 15 Oklahoma's urbanicity rate (65%) or with weighted population density ±750 Oklahoma's Population Density (2,150) and excludes counties in Oklahoma and in Oklahoma's border states. Panel (b) matches on COVID-19 testing rate on 6/6, 6/8, 6/10, 6/14, 6/16, and 6/18. Panel (c) matches on COVID-19 testing rate on 6/6, 6/14, 6/22, 6/28, 7/4, 7/12, and 7/20. Panel (d) matches on COVID-19 testing on 6/6, 6/12, 6/18, 6/24, 6/30, 7/6, 7/12, 7/18, and 7/24.

Appendix Figure 7. Synthetic Control Estimates of Effect of Tulsa Rally on COVID-19 Deaths

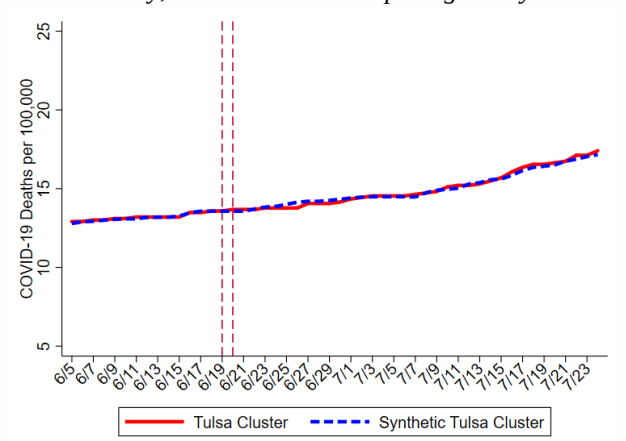
Panel (a): Tulsa County– Matching on Six days of Pre-Treatment COVID-19 Case Rates, Pre-Treatment Stay-at-Home Behavior, Mask Wearing Policy, and COVID-19 Reopening Policy



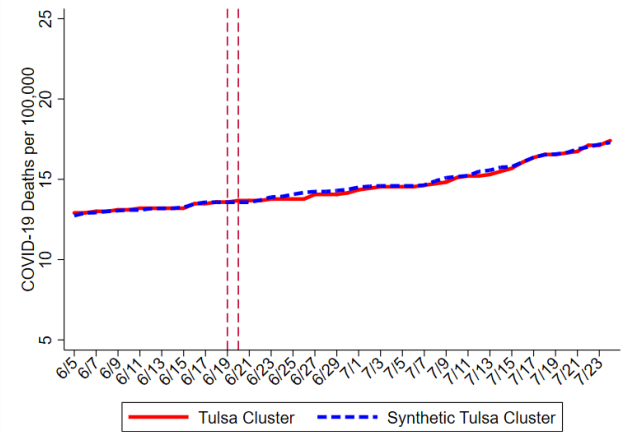
Panel (b): Tulsa County – Matching on Six days of Pre-Treatment COVID-19 Case Rates, Pre-Treatment Stay-at-Home Behavior, COVID-19 Testing Rate, COVID-19 Reopening Policy, and Mask Wearing Policy



Panel (c): Tulsa County Cluster – Matching on Six days of Pre-Treatment COVID-19 Case Rates, Pre-Treatment Stay-at-Home Behavior, Mask Wearing Policy, and COVID-19 Reopening Policy



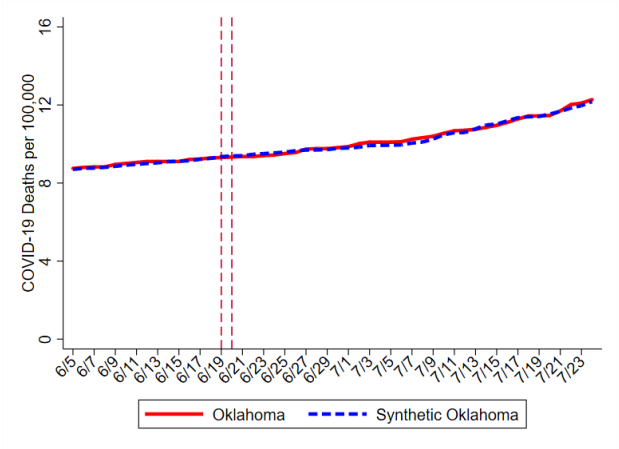
Panel (d): Tulsa County Cluster – Matching on Six days of Pre-Treatment Log(COVID-19 Case Rates), Pre-Treatment Stay-at-Home Behavior, COVID-19 Testing Rate, COVID-19 Reopening Policy, and Mask Wearing Policy



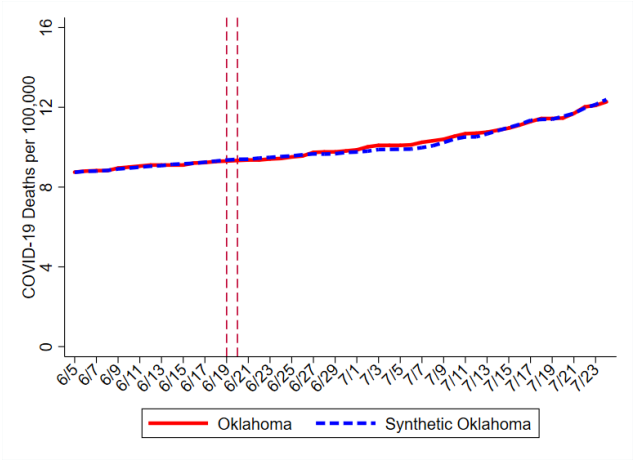
Note: The donor pool is comprised of primary counties (and their border counties) with urbanicity of ± 2.5 Tulsa County's urbanicity rate (95.2%) or weighted population density of ± 1,000 Tulsa County's density (3,250) and excludes counties in Oklahoma and in Oklahoma's border states, as well as counties where a home resident was detected (via smartphone using SafeGraph data) in the treatment CBGs on June 20, 2020.

Appendix Figure 7, Continued

Panel (e): State of Oklahoma– Matching on Six days of Pre-Treatment COVID-19 Case Rates, Pre-Treatment Stay-at-Home Behavior, Mask Wearing Policy, and COVID-19 Reopening Policy



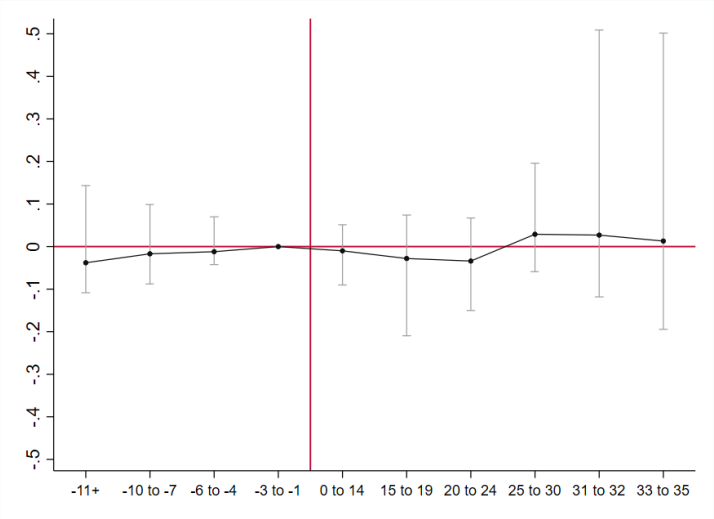
Panel (f): State of Oklahoma – Matching on Six days of Pre-Treatment COVID-19 Case Rates, Pre-Treatment Stay-at-Home Behavior, COVID-19 Testing Rate, COVID-19 Reopening Policy, and Mask Wearing Policy



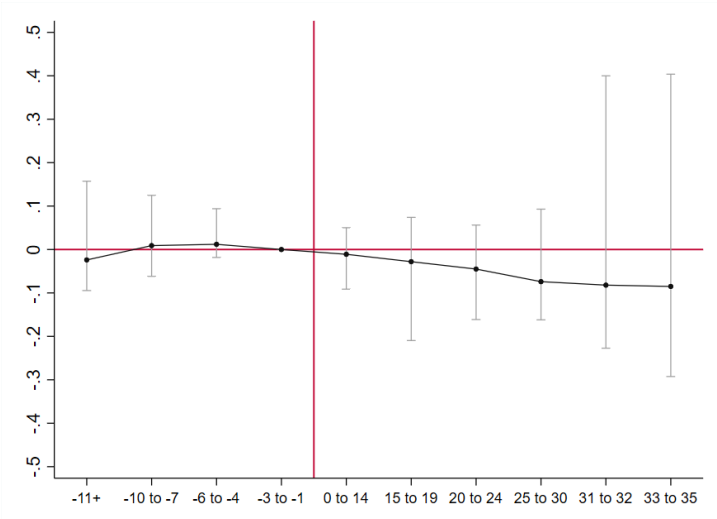
Note: The donor pool is comprised of states with urbanicity of ± 15 Oklahoma's urbanicity rate (65%) or with weighted population density ±750 Oklahoma's Population Density (2,150) and excludes counties in Oklahoma and in Oklahoma's border states.

Appendix Figure 8. Event-Study Analyses of Effect of Tulsa Rally on COVID-19 Deaths Per 100,000 Population in Oklahoma and Border States, by Dose (Absolute Inflow)

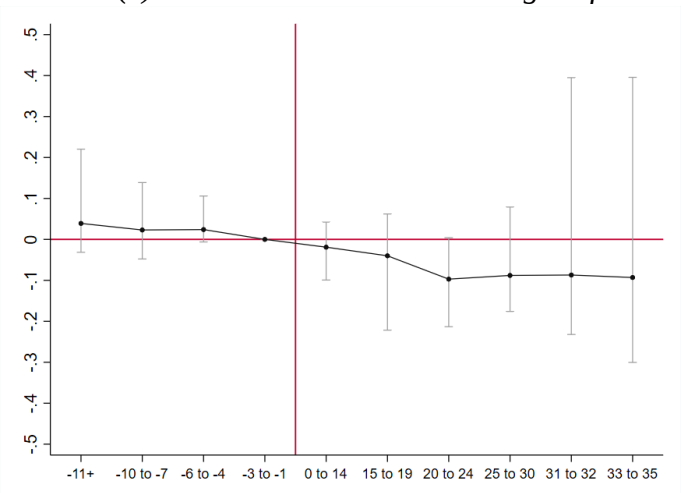
Panel (a): Counties with Low Inflow



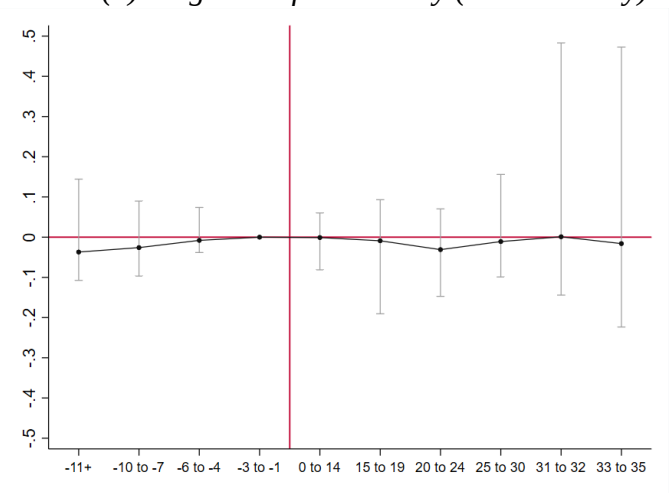
Panel (b): Counties with Moderate-Low Inflow



Panel (c): Counties with Moderate-High Inflow



Panel (d): Highest Inflow County (Tulsa County)



Note: Estimate is generated using weighted least squares estimate. All estimates include county and day fixed effects as well as county specific linear time trend. State policy controls include COVID-19 testing, an indicator for whether a state reopened restaurant or bars, an indicator for whether a state reopened retail services beyond curbside pickup, an indicator for whether a state reopened personal or pet care services, an indicator for whether a state reopened entertainment business, an indicator for whether a state reopened gyms or parks, and an indicator for whether a state paused reopening. County weather controls include average temperature and an indicator for whether any measurable precipitation fell.

Appendix Table 1. Donor Pool that Received Positive Weights in Table 2

	COVID-19 Cases			COVID-19 Deaths		
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel I: Tulsa County					
	La Crosse, WI (.430) Clark, OH (.150) Lafayette, LA (.143) Jefferson, AL (.122) Dorchester, SC (.116) Pottawattamie, IA (.029)	La Crosse, WI (.356) Jefferson, AL (.231) Clark, OH (.140) Dorchester, SC (.133) Lafayette, LA (.074) Story, IA (.064)	La Crosse, WI (.394) Weber, UT (.157) Tulare, CA (.12) Alachua, FL (.107) Lafayette, LA (.102) Charleston, SC (.056) Story, IA (.031) Pottawattamie, IA (.019)	La Crosse, WI (.428) Linn, IA (.172) Jefferson, AL (.166) Story, IA (.125) Wayne, NE (.045) Outagamie, WI (.043)	La Crosse, WI (.421) Jefferson, AL (.214) Linn, IA (.150) Tippecanoe, IN (.148) Blair, PA (.052)	Madera, CA (.413) Osceola, FL (.183) Lafayette, LA (.076) Olmsted, MN (.075) Schuykill, PA (.055) Manatee, FL (.035) St. John, LA (.016)
	Panel II: Tulsa County Cluster					
	La Crosse, WI (.361) Vanderburgh, IN (.208) Clark, OH (.181) Jefferson, AL (.136) Lafayette, LA (.093)	Jefferson, AL (.275) La Crosse, WI (.207) Ada, ID (.13) Clark, OH (.115) Linn, IA (.103) Lafayette, LA (.097) Cabell, WV (.073)	Northumberland, PA (.325) La Crosse, WI (.308) Charleston, SC (.132) Lafayette, LA (.065) Muscogee, GA (.051) Santa Barbara, CA (.050) Tulare, CA (.033) Weber, UT (.032)	Wayne, NE (.412) Linn, IA (.234) Clarke, GA (.166) Muscogee, GA (.103) Poquoson, VA (.040) Jefferson, AL (.036)	Cabell, WV (.288) Linn, IA (.274) Clarke, GA (.161) Muscogee, GA (.133) Clark, OH (.099) Jefferson, AL (.023) Wayne, NE (.023)	Madera, CA (.500) Canyon, ID (.225) Colonial Height, VA (.086) Eau Claire, WI (.062) Manatee, FL (.036) Kenton, KY (.034) Orange, NY (.019)
	Panel III: State of Oklahoma					
	ID (.610) SC (.222) MT (.168)	ID (.606) SC (.224) MT (.17)	ID (.602) SC (.222) MT (.175)	MT (.511) ID (.257) MI (.098) WY (.085) AL (.049)	MT (.442) ID (.364) MI (.094) WY (.057) AL (.043)	WY (.362) AK (.279) MT (.159) ND (.098) MI (.062) IA (.041)
Observables used to construct the weights						
Number of pre-treatment days	6	6	14	6	6	14
Matching on pre-treat Median Hours at Home	Yes	Yes	No	Yes	Yes	No
Matching on Reopening Policy?	Yes	Yes	No	Yes	Yes	No
Matching on Mask Wearing Policy?	Yes	Yes	No	Yes	Yes	No
Matching COVID-testing?	No	Yes	No	No	Yes	No

Appendix Table 2. Synthetic Control Estimates of Effect of Tulsa Rally on COVID-19 Deaths Using 5 Weeks of Post-Treatment Data

	(1)	(2)	(3)
	Panel I: Tulsa County		
Trump Rally	-0.024	0.079	-1.344
P-Value	[0.896]	[0.877]	[0.537]
Pre-Treatment Mean of DV [a]	9.542	9.542	9.542
	Panel II: Tulsa County Cluster		
Trump Rally	0.016	-0.100	-1.089
P-Value	[0.937]	[0.937]	[0.330]
Pre-Treatment Mean of DV [a]	13.210	13.210	13.210
	Panel III: State of Oklahoma		
Trump Rally	0.041	0.059	0.171
P-Value	[0.913]	[0.913]	[0.565]
Pre-Treatment Mean of DV [a]	9.044	9.044	9.044
Observable used to construct the weights			
Number of pre-treatment days	6	6	14
Matching on Median Hours at Home	Yes	Yes	No
Matching on Reopening Policy?	Yes	Yes	No
Matching on Mask Wearing Policy?	Yes	Yes	No
Matching COVID-testing?	No	Yes	No

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

Notes: Estimate is generated using synthetic control methods. Matching was conducted using the pre-treatment COVID-19 case rate and variables listed under each column. The permutation-based p-values are included in brackets below each point estimate (Abadie et al. 2010).

[a] Pre-treatment mean of the Dependent Variable (DV) is calculated using the treated unit.

Appendix Table 3. Dose-Response DD Estimates of Effect of Tulsa Rally on Inverse Hyperbolic Sine of COVID-19 Deaths Using 5 Weeks of Post-Treatment Data

	Absolute Inflow		*Relative Inflow*	
	(1)	(2)	(3)	(4)
Counties with Low Inflow				
June 20-July 4 (0-14 Days After Rally)	-0.017	-0.018	-0.022	-0.024
P-Value	[0.740]	[0.760]	[0.712]	[0.837]
June 26-July 10 (6-20 Days After Rally)	-0.059	-0.062	-0.063	-0.067
P-Value	[0.817]	[0.846]	[0.817]	[0.865]
June 11-July 19 (21-29 Days After Rally)	-0.032	-0.034	-0.022	-0.025
P-Value	[0.202]	[0.240]	[0.250]	[0.212]
July 20 onward (30+ Days After Rally)	-0.035	-0.036	-0.027	-0.032
P-Value	[0.240]	[0.317]	[0.337]	[0.231]
Counties with Moderate- Low Inflow				
June 20-July 4 (0-14 Days After Rally)	-0.011	-0.015	-0.001	-0.001
P-Value	[0.712]	[0.740]	[0.654]	[0.731]
June 26-July 10 (6-20 Days After Rally)	-0.035	-0.043	-0.036	-0.039
P-Value	[0.788]	[0.760]	[0.779]	[0.846]
June 11-July 19 (21-29 Days After Rally)	-0.075	-0.078	-0.045	-0.043
P-Value	[0.808]	[0.673]	[0.760]	[0.346]
July 20 onward (30+ Days After Rally)	-0.101	-0.101	-0.068	-0.064
P-Value	[0.279]	[0.596]	[0.375]	[0.317]
Counties with Moderate- High Inflow				
June 20-July 4 (0-14 Days After Rally)	-0.024	-0.018	-0.003	0.001
P-Value	[0.779]	[0.779]	[0.663]	[0.740]
June 26-July 10 (6-20 Days After Rally)	-0.029	-0.039	-0.056	-0.054
P-Value	[0.769]	[0.721]	[0.192]	[0.317]
June 11-July 19 (21-29 Days After Rally)	-0.047	-0.059	-0.053	-0.042
P-Value	[0.212]	[0.346]	[0.769]	[0.404]
July 20 onward (30+ Days After Rally)	-0.057	-0.048	0.005	0.028
P-Value	[0.260]	[0.346]	[0.346]	[0.308]
Highest Inflow County (Tulsa County)				
June 20-July 4 (0-14 Days After Rally)	-0.006	0.001	0.001	-0.002
P-Value	[0.702]	[0.692]	[0.644]	[0.721]
June 26-July 10 (6-20 Days After Rally)	-0.029	-0.030	0.011	0.007
P-Value	[0.779]	[0.731]	[0.202]	[0.308]
June 11-July 19 (21-29 Days After Rally)	-0.047	-0.038	-0.047	-0.046
P-Value	[0.221]	[0.337]	[0.779]	[0.394]
July 20 onward (30+ Days After Rally)	-0.057	-0.038	-0.064	-0.059
P-Value	[0.269]	[0.356]	[0.356]	[0.298]
N	36873	36873	36873	36873
Observable Controls?	No	Yes	No	Yes

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

Note: Estimate is generated using weighted least squares estimate. All estimates include county and day fixed effects as well as county specific linear time trend. State policy controls include log COVID-19 testing, an indicator for whether a state reopened restaurant or bars, an indicator for whether a state reopened retail services beyond curbside pickup, an indicator for whether a state reopened personal or pet care services, an indicator for

whether a state reopened entertainment business, an indicator for whether a state reopened gyms, and an indicator for whether a state paused reopening. County weather controls include average temperature and an indicator for whether any measurable precipitation fell. BLM Protest control include an indicator for whether a county had a city with 100,000 or more population with a Black Lives Matter protest. Permutation based p-value are included inside the bracket below each point estimate (Buchmueller et al. 2011; Cunningham and Shah (2018).

Appendix Table 4. Robustness of Synthetic Control Estimates of Effect of Tulsa Rally on Cumulative COVID-19 Deaths Per 100,000 Population to Using 8 Weeks of Post-Treatment Data

	(1)	(2)
	Panel I: Tulsa County	
Trump Rally	0.220	0.403
P-Value	[0.733]	[0.646]
Pre-Treatment Mean of DV [a]	9.542	9.542
	Panel II: Tulsa County Cluster	
Trump Rally	0.880	0.830
P-Value	[0.597]	[0.578]
Pre-Treatment Mean of DV [a]	13.210	13.210
	Panel III: State of Oklahoma	
Trump Rally	0.504	0.207
P-Value	[0.667]	[0.875]
Pre-Treatment Mean of DV [a]	9.044	9.044
Observable used to construct the weights		
Number of pre-treatment days	6	6
Matching on Median Hours at Home	Yes	Yes
Matching on Reopening Policy?	Yes	Yes
Matching on Mask Wearing Policy?	Yes	Yes
Matching COVID-testing?	No	Yes

Notes: Estimate is generated using synthetic control methods. Matching was conducted using the pre-treatment COVID-19 death rate and variables listed under each column. The permutation-based p-values are included in brackets below each point estimate (Abadie et al. 2010).

Appendix Table 5. Dose-Response Difference-in-Differences Estimates of the Effect of Tulsa Rally on Inverse Hyperbolic Sine Transformed (COVID-19 Deaths) Using 8 Weeks of Post-Treatment Data

	Absolute Inflow		*Relative Inflow*	
	(1)	(2)	(3)	(4)
Counties with Low Inflow				
June 20-July 4 (0-14 Days After Rally)	0.019	0.027	-0.001	0.002
P-Value	[0.692]	[0.558]	[0.644]	[0.558]
July 5-July 11 (15-21 Days After Rally)	0.004	0.000	-0.026	-0.019
P-Value	[0.760]	[0.529]	[0.731]	[0.558]
July 12-July 18 (22-28 Days After Rally)	0.045	0.043	0.022	0.026
P-Value	[0.692]	[0.510]	[0.692]	[0.577]
July 19- July 25 (29-35 Days After Rally)	0.058	0.055	0.034	0.030
P-Value	[0.731]	[0.577]	[0.702]	[0.635]
July 26- August 8 (36-49 Days After Rally)	-0.093	-0.096	-0.068	-0.072
P-Value	[0.327]	[0.327]	[0.385]	[0.346]
August 9- August 15 (50-56 Days After Rally)	-0.157	-0.160	-0.124	-0.128
P-Value	[0.365]	[0.337]	[0.404]	[0.356]
Counties with Moderate- Low Inflow				
June 20-July 4 (0-14 Days After Rally)	0.029	0.046	0.066	0.090
P-Value	[0.673]	[0.529]	[0.163]	[0.462]
July 5-July 11 (15-21 Days After Rally)	0.034	0.030	0.081	0.066
P-Value	[0.721]	[0.462]	[0.606]	[0.442]
July 12-July 18 (22-28 Days After Rally)	0.019	0.017	0.106	0.098
P-Value	[0.740]	[0.625]	[0.212]	[0.346]
July 19- July 25 (29-35 Days After Rally)	0.001	0.003	0.110	0.114
P-Value	[0.788]	[0.673]	[0.260]	[0.481]
July 26- August 8 (36-49 Days After Rally)	-0.225	-0.221	-0.148	-0.143
P-Value	[0,808]	[0.654]	[0.837]	[0.462]
August 9- August 15 (50-56 Days After Rally)	-0.297	-0.297	-0.222	-0.219
P-Value	[0.442]	[0.644]	[0.865]	[0.558]
Counties with Moderate- High Inflow				
June 20-July 4 (0-14 Days After Rally)	0.008	0.054	0.113*	0.148
P-Value	[0.702]	[0.500]	[0.096]	[0.182]
July 5-July 11 (15-21 Days After Rally)	0.019	-0.032	0.145	0.107
P-Value	[0.740]	[0.625]	[0.154]	[0.298]
July 12-July 18 (22-28 Days After Rally)	0.000	-0.030	0.172	0.150
P-Value	[0.760]	[0.692]	[0.173]	[0.346]
July 19- July 25 (29-35 Days After Rally)	0.026	0.007	0.318	0.307
P-Value	[0.769]	[0.663]	[0.192]	[0.144]
July 26- August 8 (36-49 Days After Rally)	-0.212	-0.234	0.019	0.017
P-Value	[0.375]	[0.712]	[0.327]	[0.298]
August 9- August 15 (50-56 Days After Rally)	-0.234	-0.256	-0.063	-0.067
P-Value	[0.404]	[0.558]	[0.346]	[0.327]

Highest Inflow County (Tulsa County)				
June 20-July 4 (0-14 Days After Rally)	0.063	0.105	0.006	0.022
P-Value	[0.615]	[0.375]	[0.625]	[0.538]
July 5-July 11 (15-21 Days After Rally)	0.090	0.033	0.022	0.013
P-Value	[0.663]	[0.433]	[0.663]	[0.538]
July 12-July 18 (22-28 Days After Rally)	0.104	0.071	-0.026	-0.03
P-Value	[0.644]	[0.423]	[0.731]	[0.654]
July 19- July 25 (29-35 Days After Rally)	0.119	0.096	-0.047	-0.043
P-Value	[0.692[	[0.538]	[0.750]	[0.663]
July 26- August 8 (36-49 Days After Rally)	-0.192	-0.221	-0.144	-0.143
P-Value	[0.365]	[0.644]	[0.827]	[0.471]
August 9- August 15 (50-56 Days After Rally)	-0.279	-0.308	-0.155	-0.157
P-Value	[0.433]	[0.683]	[0.442]	[0.385]
N	52056	52056	52056	52056
Observable Controls?	No	Yes	No	Yes

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

Note: Estimate is generated using weighted least squares estimate. All estimates include county and day fixed effects as well as county specific linear time trend. State policy controls include log COVID-19 testing, an indicator for whether a state reopened restaurant or bars, an indicator for whether a state reopened retail services beyond curbside pickup, an indicator for whether a state reopened personal or pet care services, an indicator for whether a state reopened entertainment business, an indicator for whether a state reopened gyms, and an indicator for whether a state paused reopening. County weather controls include average temperature and an indicator for whether any measurable precipitation fell. BLM Protest control include an indicator for whether a county had a city with 100,000 or more population with a Black Lives Matter protest. Permutation based p-value are included inside the bracket below each point estimate (Buchmueller et al. 2011; Cunningham and Shah 2018).

Appendix Table 6. Synthetic Control Estimates of Effect of Tulsa Rally on Three-day Moving Average of COVID-19 Case Growth Rate

	Tulsa County	Tulsa County Cluster	Oklahoma
	(1)	(2)	(3)
Trump Rally	-0.002	0.001	-0.010
P-Value	[0.663]	[0.810]	[0.522]
Pre-Treatment Mean of DV [a]	0.028	0.029	0.018

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

Notes: Estimate is generated using synthetic control methods. The donor pool is comprised of counties with urbanicity rates of ± 2.5% of Tulsa County urbanicity rate (95.2%) or weighted population density of ±1,000 people per sq. mi. of Tulsa County weighted population density (3,250) and exclude counties in Oklahoma and in Oklahoma's border states, as well as counties where a home resident was detected (via smartphone using SafeGraph data) in the treatment CBGs on June 20, 2020. All synthetic control estimates match on all days of pre-treatment COVID-19 growth rate.

[a] Pre-treatment mean of the Dependent Variable (DV) is calculated using the treated unit.

Appendix Table 7. Synthetic Control Estimates of Effect of Tulsa Rally on COVID-19 Case and Death Rate Using Different Donor Pools

	Cases per 100,000		Deaths per 100,000	
	(1)	(2)	(3)	(4)
	Panel I: Tulsa County			
Trump Rally	-57.201	-104.822	0.330	-0.541
P-Value	[0.411]	[0.240]	[0.667]	[0.760]
Pre-Treatment Mean of DV [a]	230.099	230.099	9.542	9.542
	Panel II: Tulsa Cluster			
Trump Rally	29.159	-115.975	0.143	-1.114
P-Value	[0.494]	[0.100]	[0.944]	[0.400]
Pre-Treatment Mean of DV [a]	227.892	227.892	13.210	13.210
	Panel III: State of Oklahoma			
Trump Rally	-73.154	-111.668	0.318	0.187
P-Value	[0.364]	[0.174]	[0.409]	[0.434]
Pre-Treatment Mean of DV [a]	203.002	203.002	9.044	9.044
Population Density Cut for Donors	Yes	No	Yes	No
Urbanicity Cut for Donors	No	Yes	No	Yes

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

Note: Estimate is generated using synthetic control method. Matching was based on six days of pre-treatment COVID-19 case rates, pre-treatment stay-at-home behavior, COVID-19 testing rate, COVID-19 reopening policy, and mask wearing policy. Donor pool is restricted to counties/states with similar weight population or urbanicity as Tulsa/Oklahoma.