

The Impact of the 2017 Women's March on Female Political Representation

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EEA-ESEM Congress

The 2017 Women's March: female leadership Map



The 2017 Women's March: [Map](#)



- Nov. 2016:
⇒ **Trump** won presidential race without winning popular vote
- **Outrage** exploded among **democrats**: Teresa Shook wrote in a popular **FB** group:
I think we should March
- Post went **viral** overnight
- **Jan 21st, 2017**:
⇒ **1% pop protest**
⇒ **613 ≠ locations**

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The gender gap in the US House

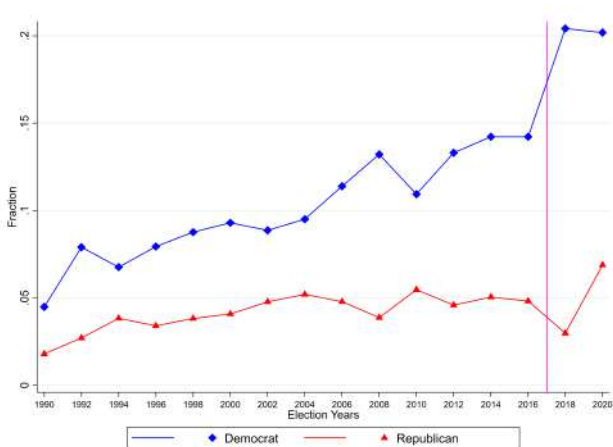


Figure: Fraction of female US House Representatives

Why do we care?

Female political representation:

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- ↑ public goods relevant for women (Chattopadhyay and Duflo, 2004)

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Feminism

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- Top-down policies → gender quotas (Bagues and Campa, 2021; Baltrunaite et al., 2019)

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What can be done to reduce the gap?

- Top-down policies → gender quotas (Bagues and Campa, 2021; Baltrunaite et al., 2019)
- Bottom-up feminist activism? → This paper

This Paper:

Research Questions:

- 1 Did the 2017 Women's March shift the supply of females in the primaries?
- 2 What are the consequences for female representation at the federal level?

Empirics:

- Apply a continuous DiD on a panel of congressional districts
- Treatment: population weighted distance to the nearest protest **Why distance?**

Contribution:

- First paper analysing the interplay between protests and the supply of politicians
- Develop a novel measure of congressional districts' exposure to protests

Overview of the main findings:

The supply of female politicians in partisan primaries

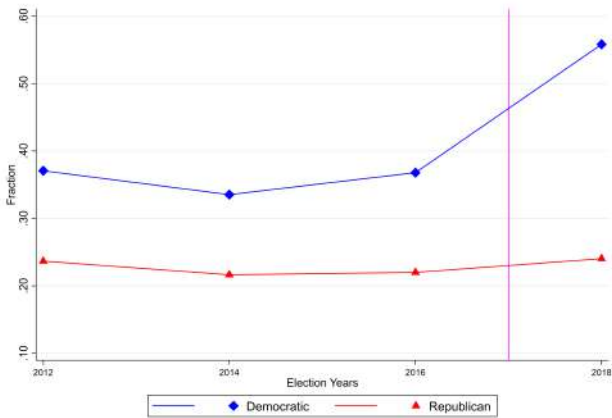


Figure: Fraction of districts with at least one female candidate

Overview of the main findings: Rationalization

The supply of female politicians in partisan primaries: breakdown by treatment status

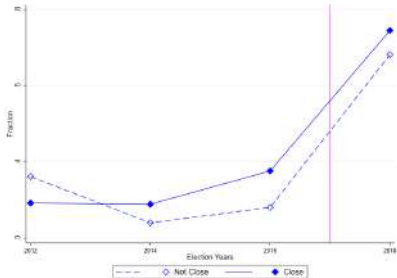


Figure: Democratic Primaries

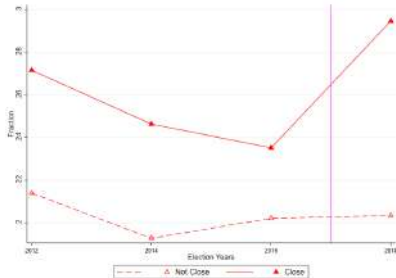


Figure: Republican Primaries

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Causal effects of the uprisings:

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Regardless of treatment status (i.e. everywhere):

- Democratic women **massively run** into congressional primaries - Supply \uparrow

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Regardless of treatment status (i.e. everywhere):

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- Democratic Party **substituted males with females** on the general election ticket

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3 Representation

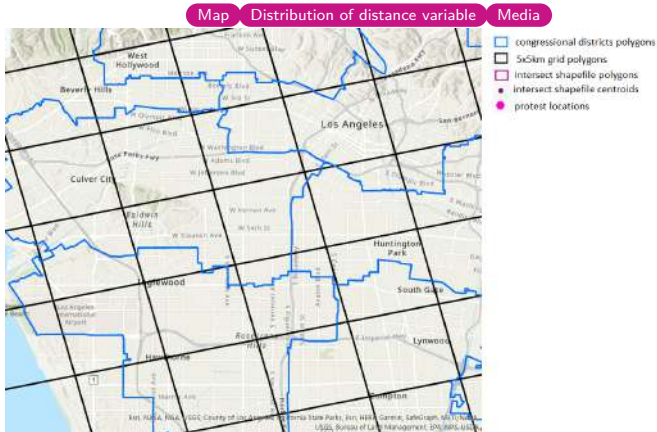
2017 WM \Rightarrow \uparrow Probability of electing a female Democrat in the general elections

Data:

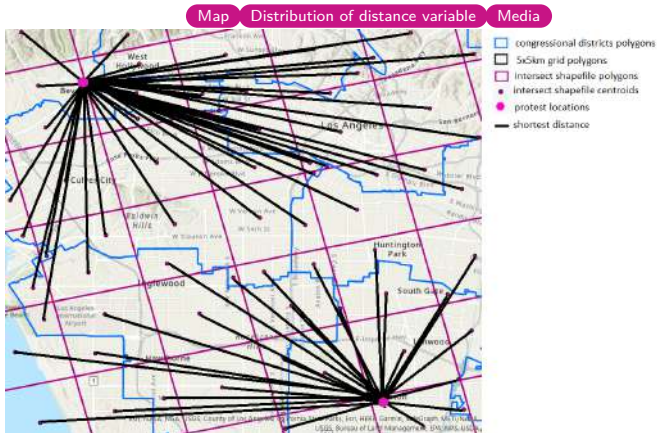
Institutional Context

- Unit of analysis: congressional district
 - Main challenge: redistricting.
 - Coping strategy: construct population crosswalks to bridge political geographies (Autor et al., 2020; Ferrara et al., 2021) → balanced panel for the years 2012-2018
- Partisan primary election returns: Harvard Dataverse (Miller and Camberg, 2020)
- General election returns: CAWP (2020) and MIT (2020) (augmented with Social Security Name Files to understand the gender of candidates)
- Protest data: Crowd Counting Consortium (CCC; Chenoweth and Pressman, 2017; Fisher et al., 2019)
- United States CD TIGER/Line Shapefiles (US Census Bureau, 2020)
- 5x5km grid of the United States (Talbert and Reichert, 2018)
- Population raster files with 1x1km resolution (Fang and Jawitz, 2018)

Treatment visualization:



Treatment visualization:



Continuous DiD:

Institutional Context

Interpreting δ

Selection

$$y_{pdt} = \theta_d + \Gamma(d)_{st} + \delta POST_t \cdot \log(\text{distance})_d + \epsilon_{pdt} \quad (1)$$

- y_{pdt} : dummy/share in the partisan primary p of district d in election year t
- θ_d : CD fixed effects
- $\Gamma(d)_{st}$: state-election fixed effects
- $POST_t$: dummy for after the March (i.e. 2018)
- $\log(\text{distance})_d$: log of population-weighted distance

Event-study parametrization:

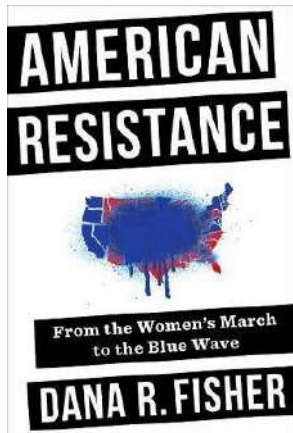
$$y_{pdt} = \theta_d + \Gamma(d)_{st} + \sum_{\substack{\tau=2012 \\ \text{with } \tau \neq 2016}}^{\tau=2018} \delta_\tau \cdot \text{Time}_\tau \cdot \log(\text{distance})_d + \epsilon_{pdt} \quad (2)$$

- Time_τ is a time-varying battery of dummies for each election year

The 2017 Women's March:

Map

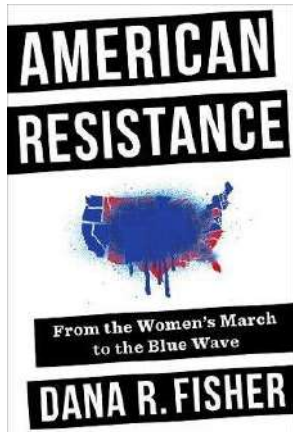
Back to WM



- **2017 WM as inauguration:**

- Wave of protests
- Emergence of grass root local political movements
 - [American Resistance](#)

The 2017 Women's March:

[Map](#)[Back to WM](#)

- **2017 WM as inauguration:**
 - Wave of protests
 - Emergence of grass root local political movements
 - [American Resistance](#)
- **Demographics** of protesters (surveys, p.45):
 - 85% **women**
 - 92% **left ideology**
 - 87% **bachelor** or higher
 - 33% **first timers**
 - 42% attended a **local political meeting** in the year following the March

First order effect of the protests:

- American Resistance \Rightarrow **Protesters**, past year: attend local political meeting
- CCES survey item \Rightarrow **Population**, past year: attend local political meeting

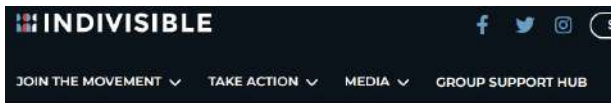
$$y_{idt} = \theta_d + \alpha_t + \Phi_s \cdot trend_t + \gamma POST_t \cdot \log distance_d + X'_{idt} \mu + \epsilon_{idt} \quad (3)$$

	Males	Females
POST · log distance	-0.003 (0.005)	-0.010*** (0.004)
CD fixed effects	Y	Y
Year fixed effects	Y	Y
Controls	Y	Y
State time trends	Y	Y
Observations	88,497	108,333
Adj R2	0.0413	0.0399
Dep. var mean	0.162	0.105
Avg log distance	3.24	3.24
US voting age pop	111M	117M

- **Back of the envelope:** WM \Rightarrow 117M · 3.24 · $-\gamma$ = 4 928 040 women politically engaged

Long lasting effect of the protests:

- American Resistance: emergence of **local left wing** political groups after the WM
- **Indivisible** platform was founded to **coordinate** these local groups

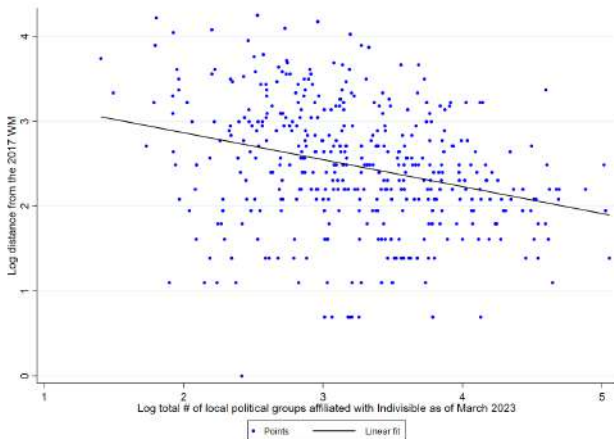


We're a grassroots movement of thousands of local Indivisible groups with a mission to elect progressive leaders, rebuild our democracy, and defeat the Trump agenda.

Figure: Caption from *indivisible.org*

Long lasting effect of the protests:

- If exposure to **local Resistance activity** is the treatment, **then we expect a negative correlation with distance**



Main Results:

Inference

Rep primaries

Dem primaries

Gen elections

Prob Visual

	Republican primaries		General Elections		
	Supply of women		(3) Share Turnout	Democratic women	
	(1) Dummy	(2) Share		(4) Share votes	(5) Elected Dummy
Post · log distance	-0.0847** (0.0426)	-0.0744** (0.0291)	-0.0099** (0.0039)	-0.0360* (0.0203)	-0.0553** (0.0261)
CD FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
State-election FE	Y	Y	Y	Y	Y
Observations	1325	1325	1704	1580	1704
R-Squared	0.5101	0.5458	0.9246	0.7627	0.8459
Adj. R2	0.2091	0.2667	0.8842	0.6208	0.7634
Dep. Var Mean	0.2219	0.1216	0.4740	0.1406	0.1377

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km for pri, 135km for gen) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

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DiD, event study parametrization:

Dependent variable: dummy for at least one female candidate

Inference

Dem primaries, dummy

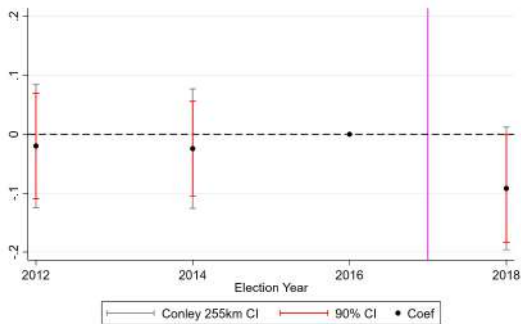


Figure: Republican Primaries

DiD, event study parametrization:

Dependent variable: share of female candidates

Inference

Dem primaries, share females

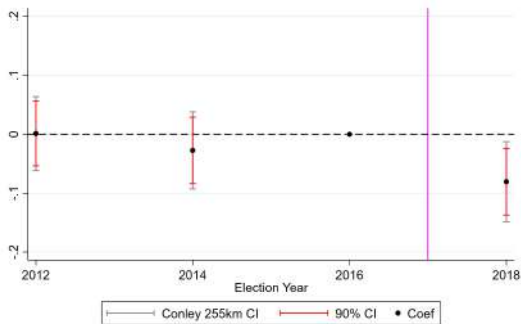


Figure: Republican Primaries

DiD, event study parametrization:

Dependent variable: dummy for female Democratic US House representative

Inference

Overall

Republican

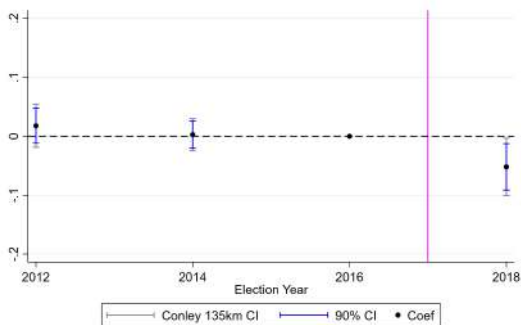


Figure: General Elections

Absence of competing mechanisms

- District shopping →
- Distance from cities →
- Media coverage →

Profiling female congressional candidates

- Ideology, i.e. CFScores $\in (-4, +4)$ →
- Electoral campaign contributions →
- Twitter? (WP)

Robustness checks:

- 1 Selection into protests →
- 2 Relaxing strong parallel trends: →
- 3 Substituting state-election fixed effects with state specific linear time trends →
- 4 Using the *area weighted* distance rather than the *population-weighted* distance
- 5 Panel of congressional districts:
 - ▶ Drop the states that passed redistricting bills (19%) of sample
 - ▶ Follow Fowler and Hall (2015) and code a district as new when redistricting occurs
- 6 Alternative clustering of standard errors (different distance threshold, spatial kernel, cluster by district, cluster by state)

Conclusion:

Causal effects of the uprisings:

- 1 Supply
2017 WM \Rightarrow \uparrow Supply of females in Republican primaries
- 2 Representation
2017 WM \Rightarrow \uparrow Probability of electing a female Democrat in general election

Channel:

- Peer effects of sustained grass-root "lefty" political activism of women

Thank you for your attention!
Comments are most welcome

alessandra.moresi@carloalberto.org

The 2017 Women's March:

A political protest with feminist roots

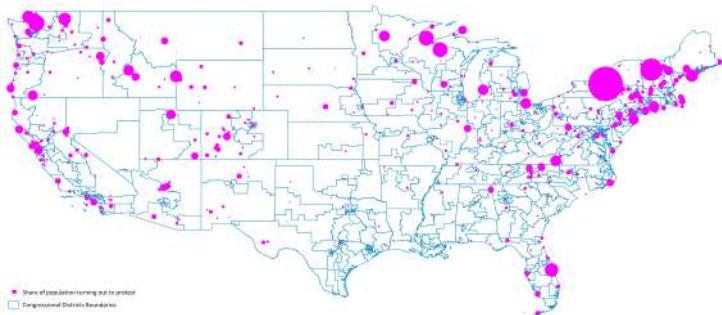
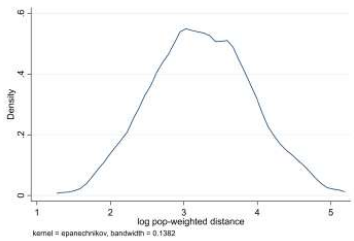
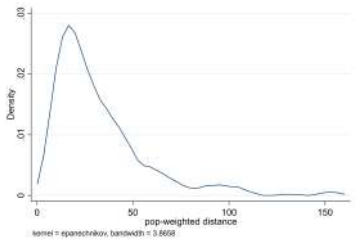
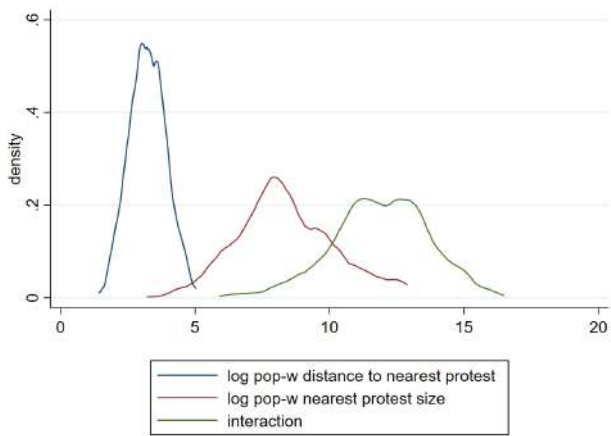


Figure: Share of population turning out to protest in populated places. The greatest protest has been in the town of Seneca Falls, the location that hosted the first women's rights convention in 1848.

Treatment variable: [Back to visual definition](#)



Distributions of treatment variables



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Measurement error in protest size

[Back to RQ](#)

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Table: share of female candidates

	Republican primaries			Democratic primaries		
	(1)	(2)	(3)	(4)	(5)	(6)
POST- <i>log size</i>	-0.00970 (0.00854) [0.00776] {0.0104}	-0.0113 (0.00829) [0.00732] {0.0104}	-0.0152* (0.00872) [0.00864] {0.0101}	0.00340 (0.00936) [0.00916] {0.0110}	0.00458 (0.00929) [0.00899] {0.0110}	0.00264 (0.00846) [0.00818] {0.0100}
CD fixed effects	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y	Y		Y	Y	
State-specific linear time trends			Y			Y
Controls		Y	Y		Y	Y
Observations	1,325	1,310	1,328	1,341	1,324	1,343
R-squared	0.543	0.541	0.520	0.571	0.577	0.542
Adj R2	0.262	0.252	0.310	0.308	0.310	0.340
Dep. var. mean	0.122	0.122	0.122	0.239	0.239	0.239

Notes: size is $\log(\text{pop-weighted size of the nearest protest})$. Standard errors corrected for spatial correlation using a 255km threshold in (), using a 300km threshold in [], clustered at the district level in { }.

The supply of female candidates in partisan primaries:

Dummy

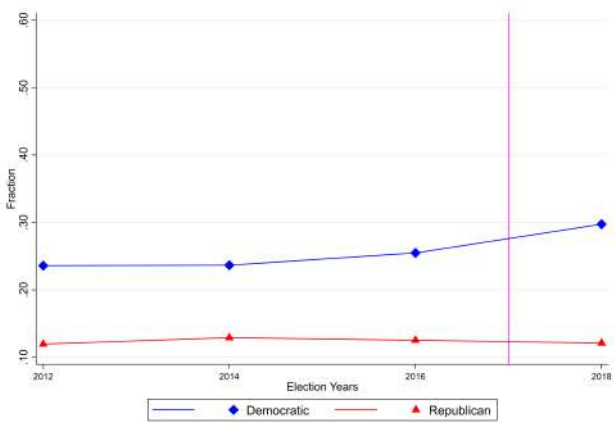


Figure: Fraction of female candidates

Rationalization of results [Back to findings](#)

Nov 2016: Presidential election of Trump

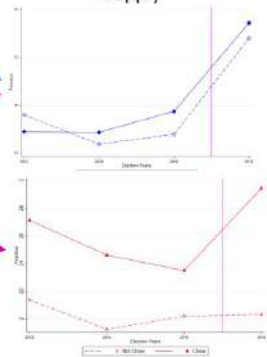


Moral shock for Democrats **everywhere** that they live

Democratic protest: 2017 Women's March



Supply



US House elections:

[Back to Data](#) [Back to Empirics](#)

Basics:

- The US House is composed by 435 voting members
- Elected for a two-years mandate
- First past the post electoral system

Deeper look:

- [Requisites to run for office as US House representative](#)
- Some of them are disciplined by state laws
- The requirements do not vary along a gendered dimension
- [Redistricting](#)
Crosswalks (Autor et al., 2020; Calderon, Fouka and Tabellini, 2021; Ferrara et al., 2021)
⇒ Balanced panel for the years 2012-18

US House Partisan Primaries:

- Ground used by political parties to select who shall be nominated for the general election
- Disciplined by state laws (NCSL, 2020)

Requisites to run for office as US House Representative:

[Back to Empirics](#)

- Federal requirements:
being 25, resident of the state, US citizen since 7 years (US Constitution, 2020)
- State level requirements:
Ballot Access Laws (Ballotpedia, 2020)
 - 1 Petition with a minimum number of signatures
 - 2 Registration fee

→ Candidates that satisfy the requirements can compete in elections as:

- Nominated by a state political party
- Independent
- Write-in

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Redistricting:

[Back to Empirics](#)

- Every 10 years (i.e. 5 elections), the federal government re-apportions CD to states
- Most state parliaments have the authority to re-draw CD boundaries before each election

→ Districts are not stable geographical units

In the election years 2012-2018, the following states were affected by redistricting:

- Between 2016 and 2018 - Pennsylvania (mandated by the state Supreme Court to remedy gerrymandering)
- Before 2016 - Florida, North Carolina and Virginia

[Back to background](#)

Redistricting: crosswalks

- 1 Use the 113th CD shapefile as a reference map (i.e. Congress elected in 2012)
- 2 Intersect the maps of all of the other CD years with the reference year. This will generate 3 **intersect files** (2012–14, 2012–16 and 2012–18).
- 3 Overlay the population distribution raster for 2010 to each **intersect file** to generate a population count for each polygon
- 4 Export the 3 **intersect files**
- 5 For each intersect file, generate the total population of each CD, by summing the populations of all of the polygons that reside in each given CD.
- 6 Divide each **intersect files** polygon population by its CD population to generate weights for harmonizing the origin CD level data to the reference (i.e. 2012) CDs.
- 7 Multiply the relevant data values in each of the origin Congress years by the weights for each polygon.
- 8 Finally, collapse (sum) these within the 2012 Congress year's CDs.

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DiD, Republican primaries:

Inference

Het. votes

Main results

	(1)	(2)	(3)	(4)	(5)
	Dummy for at least one female running	Share of females	Share of votes for females	Dummy for female winner	Share turnout
Post · log distance	-0.0847** (0.0426)	-0.0744** (0.0291)	-0.0774** (0.0309)	-0.0515 (0.0365)	-0.0029 (0.0043)
CD FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
State-election FE	Y	Y	Y	Y	Y
Observations	1325.	1325.	1325.	1325.	1325.
R-Squared	0.5101	0.5458	0.5906	0.6133	0.8474
Adj. R2	0.2091	0.2667	0.3391	0.3757	0.7537
Dep. Var Mean	0.2219	0.1216	0.1225	0.1197	0.0704

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km)
 *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

DiD, Democratic primaries: Inference Main results

	(1)	(2)	(3)	(4)	(5)
	Dummy for at least one female running	Share of females	Share of votes for females	Dummy for female winner	Share turnout
Post · log distance	-0.0380 (0.0546)	-0.0402 (0.0345)	-0.0434 (0.0348)	-0.0160 (0.0454)	-0.0093* (0.0050)
CD FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
State-election FE	Y	Y	Y	Y	Y
Observations	1341.	1341.	1341.	1341.	1341.
R-Squared	0.5505	0.5716	0.6057	0.5908	0.8613
Adj. R2	0.2743	0.3085	0.3634	0.3394	0.7761
Dep. Var Mean	0.3521	0.2388	0.2529	0.2613	0.0530

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km)
 *** p<0.01, ** p<0.05, * p<0.1

Probability female listed on general election ticket Main results

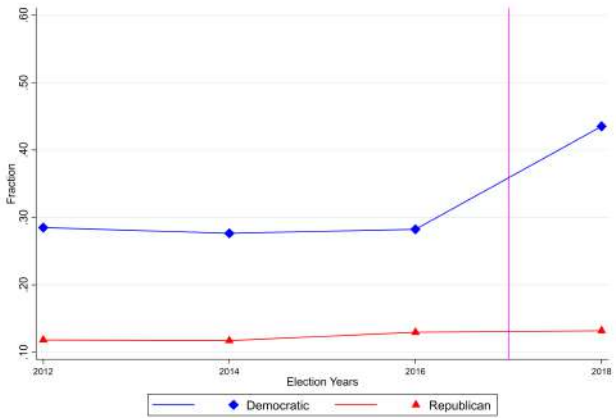


Figure: Fraction of districts with a female candidate in general

Probability female listed on general election ticket

Breakdown by treatment status Main results

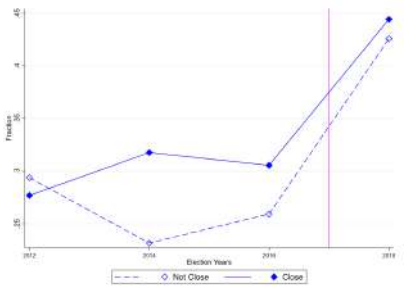


Figure: Democratic

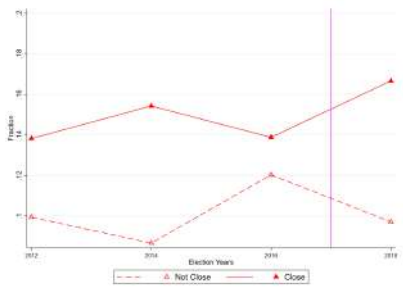


Figure: Republican

DiD, General Elections: Inference Main results

	(1)	Democratic		Republican	
	(1)	(2)	(3)	(4)	(5)
	Share turnout	Share of votes for females	Dummy for female elected	Share of votes for females	Dummy for female elected
Post · log distance	-0.0099** (0.0039)	-0.0360* (0.0203)	-0.0553** (0.0261)	-0.0056 (0.0118)	-0.0079 (0.0125)
CD FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
State-election FE	Y	Y	Y	Y	Y
Observations	1704	1580	1704	1586	1704
R-Squared	0.9246	0.7627	0.8459	0.7015	0.8066
Adj. R2	0.8842	0.6208	0.7634	0.5236	0.7030
Dep. Var Mean	0.4740	0.1406	0.1377	0.0472	0.0446

Notes: Standard errors corrected for spatial correlation using the optimal threshold (135km)
 *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

DiD, event study parametrization:

Dependent variable: dummy for at least one female candidate Inference Rep primaries, dummy

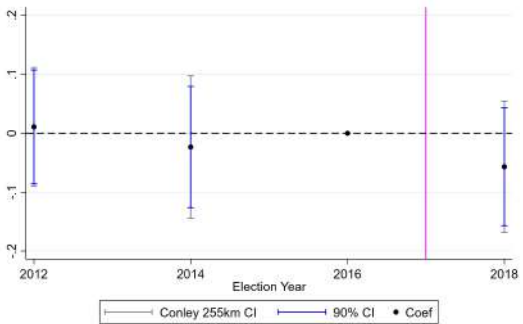


Figure: Democratic Primaries

DiD, event study parametrization:

Dependent variable: share of female candidates Inference Rep primaries, share females

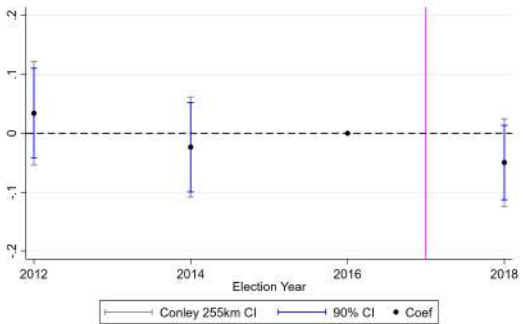


Figure: Democratic Primaries

DiD, event study parametrization:

Dependent variable: dummy for female US House representative, regardless of party affiliation

Inference Democratic Republican

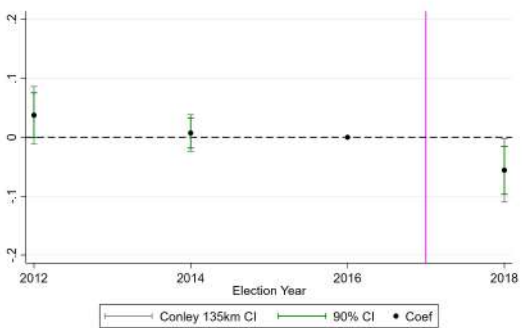


Figure: General Elections

DiD, event study parametrization:

Dependent variable: dummy for female US House representative, Republican Inference

Overall

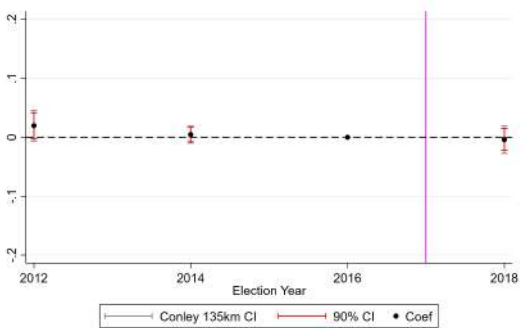


Figure: General Elections

The "bite" of the 2017 WM: parallel trends

Back to Mechanisms

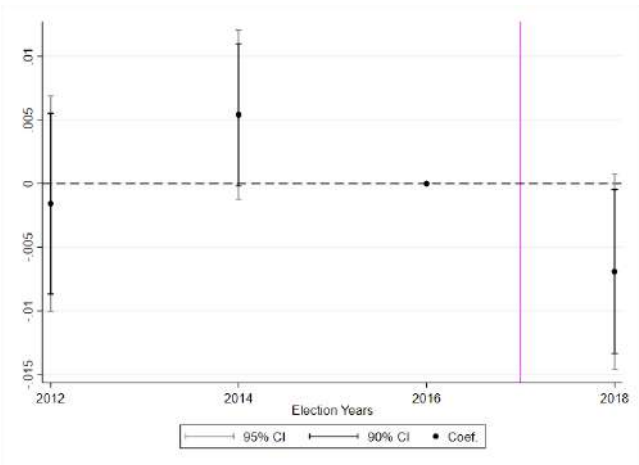


Figure: PCA on CCES survey items relative to political participation. Females subsample.

Interpreting DiD estimates

(Callaway, Goodman-Bacon and Sant'Anna, 2021)

- Under strong parallel trends: [More on parallel trends](#)
- δ equals a positively weighted average of Average Causal Response parameters across log distances
- When the *dose* variable is normally distributed, the ACR(d) are weighted by the distribution of the *dose* variable

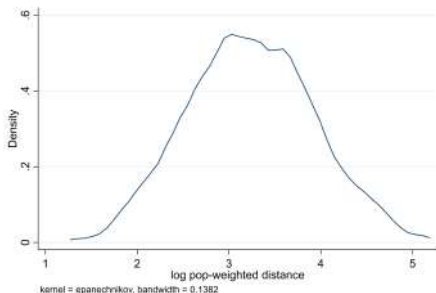


Figure: Distribution of the log distance variable

Heterogeinty in the demand for females across primary election systems [Back to results Rep](#)

Table: Share of votes for Republican females and primary openness

	Open Primaries			Non-Open Primaries		
	(1)	(2)	(3)	(4)	(5)	(6)
POST · log distance	-0.107** (0.047)	-0.109** (0.048)	-0.100** (0.044)	-0.045 (0.039)	-0.043 (0.040)	-0.048 (0.034)
CD fixed effects	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y	Y		Y	Y	
State specific linear time trends			Y			Y
Controls		Y	Y		Y	Y
Observations	650	643	652	675	667	676
R-squared	0.596	0.600	0.587	0.587	0.580	0.552
Adj R2	0.373	0.372	0.407	0.306	0.284	0.347
Dep. var. mean	0.113	0.113	0.113	0.129	0.129	0.129

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Selection into protests

	Control		Treated		T-test	
	Mean	Sd	Mean	Sd	Difference	T-stat
<i>2017 Women's March</i>						
Log distance	3.79	0.41	2.68	0.39	1.11***	-28.73
Log size	8.3	1.53	8.87	2.02	-0.58***	-3.34
<i>Previous US House Elections</i>						
Share votes Dem t-1	0.37	0.20	0.58	0.20	-0.21***	-10.83
Share votes Rep t-1	0.59	0.20	0.37	0.21	0.22***	-11.50
Democratic stronghold	0.20	0.40	0.64	0.48	-0.44***	-10.45
Republican stronghold	0.72	0.45	0.31	0.46	0.42***	-9.51
<i>Demographics</i>						
Log population density	3.99	1.36	6.28	1.62	-2.30***	-15.97
Share voting age pop female	0.51	0.01	0.52	0.01	-0.01***	-4.50
Share pop bachelor of higher	0.29	0.09	0.37	0.12	-0.08***	-8.23
Female labor force particip. rate	0.72	0.05	0.74	0.04	-0.02***	-5.77
Median age	38.89	3.72	37.67	3.51	1.23***	-3.53
Share black	0.12	0.13	0.13	0.15	-0.01	-1.04
N	216		216		432	

Selection into protests

$$y_{pdt} = \theta_d + \Gamma(d)_{st} + \delta POST_t \cdot \log(distance)_d + \alpha POST_t \cdot X_d + X'_{dt}\mu + \epsilon_{pdt} \quad (4)$$

- y_{pdt} : dummy/share in the partisan primary p of district d in election year t
- θ_d : CD fixed effects
- $\Gamma(d)_{st}$: state-election fixed effects
- $POST_t$: dummy for after the March (i.e. 2018)
- $\log(distance)_d$: log of population-weighted distance
- X'_{dt} : time-varying controls
- X_d : time invariant districts' characteristics

Selection into protests

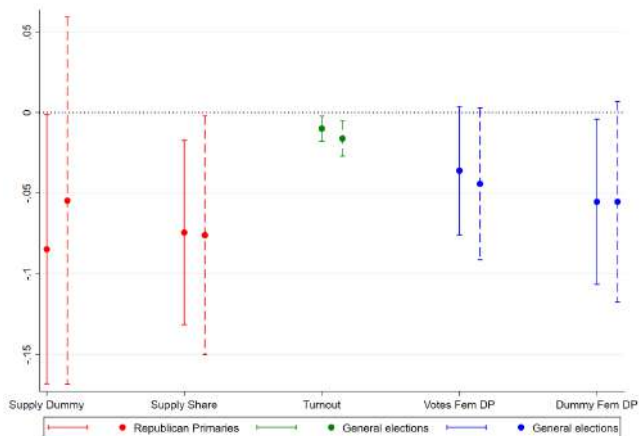


Figure: Solid CI refer to the baseline model, dashed CI refer to the model with controls

Selection into protests:

Inference

[Back to list of robustness](#)

	Republican primaries			General Elections	
	Supply		(3) Share Turnout	Democratic	
	(1) Share of females	(2) Dummy for at least one female running		(4) Share of votes for females	(5) Dummy for female elected
Post · log distance	-0.0760** (0.0377)	-0.0546 (0.0581)	-0.0160*** (0.0055)	-0.0442* (0.0240)	-0.0553* (0.0317)
CD FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
State-election FE	Y	Y	Y	Y	Y
Controls _{td}	Y	Y	Y	Y	Y
Post · Controls _d	Y	Y	Y	Y	Y
Observations	1310	1310	1685	1564	1685
R-Squared	0.5486	0.5182	0.9377	0.7694	0.8566
Adj. R2	0.2586	0.2087	0.9031	0.6262	0.7768
Dep. Var Mean	0.1195	0.2172	0.4742	0.1410	0.1382

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km for pri, 135km for gen) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

District Shopping Mechanisms

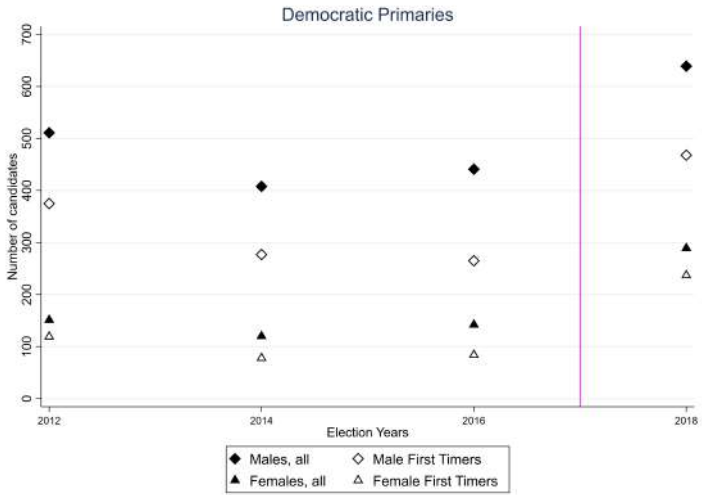
- Any candidate must be **resident of the state** where s/he is elected (US Constitution)
- ⇒ female candidates could strategically **switch district** between 2016 and 2018

PANEL A: Females	Between 2012 and 2014		Between 2014 and 2016		Between 2016 and 2018	
	To Not Close	To Close	To Not Close	To Close	To Not Close	To Close
Democratic Primaries	0	0	1	2	1	1
Republican Primaries	0	1	4	1	1	2

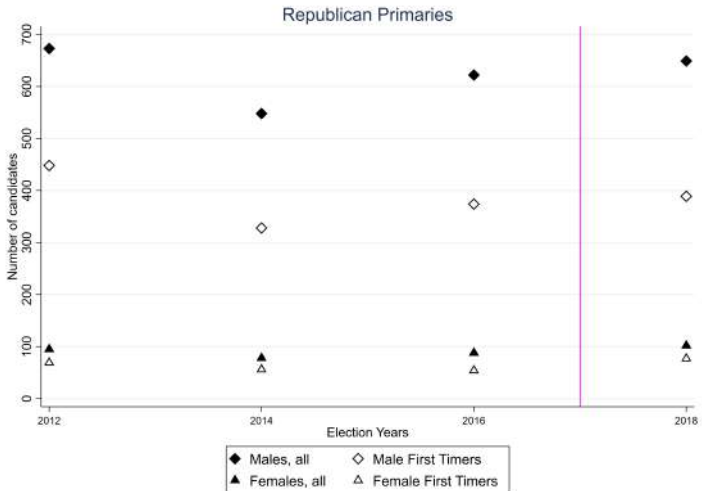
PANEL B: Males	Between 2012 and 2014		Between 2014 and 2016		Between 2016 and 2018	
	To Not Close	To Close	To Not Close	To Close	To Not Close	To Close
Democratic Primaries	4	2	3	4	2	8
Republican Primaries	4	1	4	4	7	8

Notes: Candidates switching congressional district in subsequent elections, broken down by destination districts (i.e. Close and Not Close to the 2017 WM).

Number of Democratic candidates [Back to district shopping](#)



Number of Republican candidates [Back to district shopping](#)



Distance from cities Mechanisms

- Protests are organized in cities
- Proximity to cities itself may trigger an effect on the supply of female politicians in times of critical junctures
 - Include **POST · log pop-weighted distance to the nearest city** with at least X inhabitants
 - with $X \in \{50k, 100k, 150k, 200k, 250k, 300k, 350k, 400k\}$.

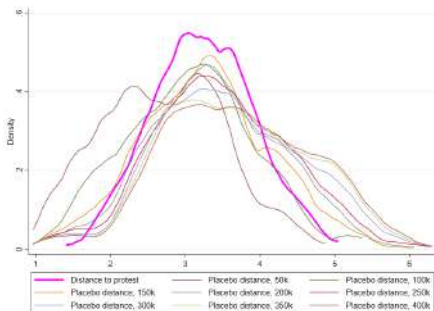


Figure: Distribution of the log distances

Distance from cities: Dummy Mechanisms

	Share of female candidates in the Republican Primaries							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance to the nearest urban cluster with at least X inhabitants, with $X \in$	50k	100k	150k	200k	250k	300k	350k	400k
POST · log distance	-0.0723** (0.0364)	-0.0613* (0.0356)	-0.0807** (0.0390)	-0.0884** (0.0386)	-0.0718** (0.0363)	-0.0535 (0.0362)	-0.0534 (0.0369)	-0.0479 (0.0368)
POST · log placebo distance	-0.00248 (0.0294)	-0.0147 (0.0263)	0.00622 (0.0240)	0.0131 (0.0226)	-0.00239 (0.0228)	-0.0185 (0.0233)	-0.0182 (0.0227)	-0.0227 (0.0231)
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,325	1,325	1,325	1,325	1,325	1,325	1,325	1,325
R-squared	0.546	0.546	0.546	0.546	0.546	0.546	0.546	0.546
Adj R2	0.266	0.266	0.266	0.266	0.266	0.266	0.266	0.267
Dep. var. mean	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Distance from cities

Share

Distance to the nearest urban cluster with at least X inhabitants, with $X \in$	Dummy for at least one female running in the Republican Primaries							
	(1) 50k	(2) 100k	(3) 150k	(4) 200k	(5) 250k	(6) 300k	(7) 350k	(8) 400k
POST · log distance	-0.0715 (0.0592)	-0.0786 (0.0625)	-0.0734 (0.0613)	-0.0791 (0.0611)	-0.0563 (0.0567)	-0.0291 (0.0600)	-0.0187 (0.0571)	-0.0168 (0.0571)
POST · log placebo distance	-0.0154 (0.0485)	-0.00692 (0.0506)	-0.0113 (0.0415)	-0.00535 (0.0398)	-0.0261 (0.0381)	-0.0492 (0.0390)	-0.0571 (0.0356)	-0.0581 (0.0358)
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,325	1,325	1,325	1,325	1,325	1,325	1,325	1,325
R-squared	0.510	0.510	0.510	0.510	0.510	0.511	0.511	0.511
Adj R2	0.208	0.208	0.208	0.208	0.208	0.209	0.210	0.210
Dep. var. mean	0.224	0.224	0.224	0.224	0.224	0.224	0.224	0.224

Notes: Standard errors corrected for spatial correlation using a 255km threshold in $()$, using a 300km threshold in $[\]$, clustered at the district level in $\{\}$.

The salience of the March in media

- On January 21st, 2017, more than three million people took to the streets across ≈ 600 different protest locations \rightarrow **massive event, wide media coverage in the news and on social media**
- **Distance** captures the salience of the event for the electorate, because it captures **proximity to local resistance activity**
- Does the salience of the March in the news trigger different behavioral responses?

The salience of the March of media: Data

Source: Nexis Uni (Lexis Nexis).

Filters: News, Newspapers, North America, United States, English, Dates: 01/21/2017 – 01/01/2018

Procedure: Retrieve the **news cont** of newspaper articles mentioning together:

- 1 **Women’s March AND the sister WM location** (Example: “Women’s March” AND “Dallas”)
 Total # of articles before filtering for protest location: 5,912
- 2 **Black Lives Matter AND the sister WM location** (Exempl: “Black Lives Matter” AND “Dallas”) ← **Placebo, general media coverage effect**
 Total # of articles before filtering for protest location: 5,865
- 3 Each CD is assigned to a population weighted average of nearest protest. Each of the nearest protest is associated to a news count and to a placebo news count. Visualization

Salience of the each local protest in the media Distribution of the salience variable :

$$\log \text{ news salience}_d = \log\left(\frac{\text{pop} - \text{weighted news count WM} + 1_d}{\text{pop} - \text{weighted news count BLM} + 1_d}\right) \tag{5}$$

The role of media: supply of female politicians

Effect on PE

Effect on GE

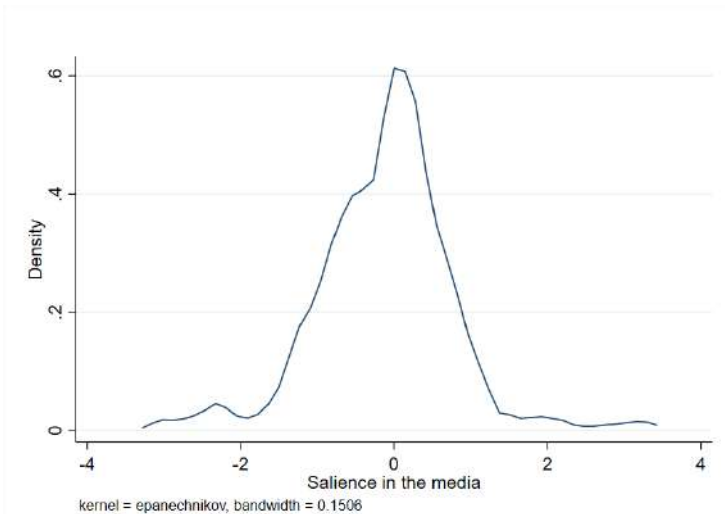
Mechanisms

	Republican Primaries				Democratic Primaries			
	(1) (Dummy)	(2) (Dummy)	(3) (Share)	(4) (Share)	(5) (Dummy)	(6) (Dummy)	(7) (Share)	(8) (Share)
POST · log distance	-0.0837** (0.0422)	-0.0688* (0.0371)	-0.0717** (0.0290)	-0.0630** (0.0247)	-0.0398 (0.0560)	-0.00156 (0.0483)	-0.0443 (0.0360)	-0.0247 (0.0330)
POST · log news salience	-0.00946 (0.0361)	-0.0140 (0.0346)	-0.0230 (0.0238)	-0.0256 (0.0211)	0.0138 (0.0411)	-0.0220 (0.0342)	0.0318 (0.0319)	0.00131 (0.0251)
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y		Y		Y		Y	
State specific lin time trends		Y		Y		Y		Y
Observations	1,325	1,343	1,325	1,343	1,341	1,360	1,341	1,360
R-squared	0.510	0.481	0.546	0.525	0.551	0.515	0.572	0.537
Adj R2	0.208	0.258	0.267	0.321	0.274	0.306	0.309	0.337
Dep. var. mean	0.228	0.228	0.123	0.123	0.406	0.406	0.254	0.254

Notes: Standard errors corrected for spatial correlation using the optimal threshold (255km). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Distribution of the salience in the media variable

[Back to Media](#)



The role of media: primary elections [Back to media analysis](#)

Primary Elections	Republican Primaries				Democratic Primaries			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dummy for at least one female running	Share of females	Share of votes for females	Dummy for female elected	Dummy for at least one female running	Share of females	Share of votes for females	Dummy for female elected
POST · log distance	-0.0837** (0.0422) [0.0408] {0.0466}	-0.0717** (0.0290) [0.0279] {0.0304}	-0.0746** (0.0308) [0.0295] {0.0310}	-0.0489 (0.0363) [0.0344] {0.0379}	-0.0398 (0.0560) [0.0521] {0.0524}	-0.0443 (0.0360) [0.0345] {0.0338}	-0.0483 (0.0367) [0.0350] {0.0361}	-0.0196 (0.0474) [0.0464] {0.0463}
POST · log news salience	-0.00946 (0.0361) [0.0370] {0.0379}	-0.0230 (0.0238) [0.0242] {0.0260}	-0.0244 (0.0248) [0.0257] {0.0275}	-0.0229 (0.0302) [0.0312] {0.0319}	0.0138 (0.0411) [0.0372] {0.0412}	0.0318 (0.0319) [0.0278] {0.0287}	0.0361 (0.0325) [0.0273] {0.0306}	0.0280 (0.0395) [0.0355] {0.0389}
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,325	1,325	1,325	1,325	1,341	1,341	1,341	1,341
R-squared	0.510	0.546	0.591	0.614	0.551	0.572	0.606	0.591
Adj R2	0.208	0.267	0.339	0.376	0.274	0.309	0.364	0.339
Dep. var. mean	0.224	0.120	0.121	0.117	0.406	0.254	0.279	0.298

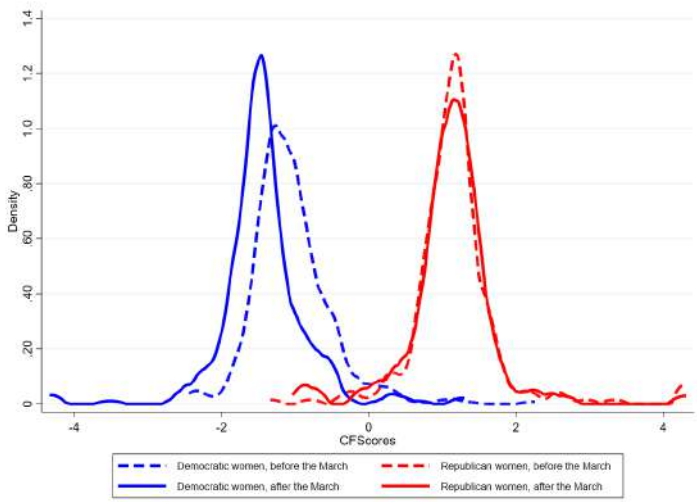
Notes: Standard errors corrected for spatial correlation using a 255km threshold in (), using a 300km threshold in [], clustered at the district level in {}.

The role of media: general elections [Back to media analysis](#)

General Elections	Share of votes for females			Dummy for female elected			Share of votes for party	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Regardless of party	Republican	Democratic	Regardless of party	Republican	Democratic	Republican	Democratic
POST · log distance	-0.0468* (0.0271) [0.0278] {0.0262}	-0.00473 (0.0120) [0.0124] {0.0126}	-0.0370* (0.0206) [0.0208] {0.0216}	-0.0631** (0.0291) [0.0280] {0.0264}	-0.00672 (0.0123) [0.0125] {0.0119}	-0.0563** (0.0264) [0.0248] {0.0252}	-0.00456 (0.00732) [0.00756] {0.00737}	-0.000827 (0.00834) [0.00876] {0.00894}
POST · log news salience	0.0279* (0.0169) [0.0167] {0.0174}	-0.00859 (0.0112) [0.0117] {0.0115}	0.00847 (0.0166) [0.0174] {0.0165}	-0.00242 (0.0178) [0.0182] {0.0164}	-0.0108 (0.0128) [0.0130] {0.0130}	0.00837 (0.0236) [0.0244] {0.0227}	0.00920* (0.00510) [0.00498] {0.00555}	-0.00750 (0.00663) [0.00671] {0.00802}
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-election fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,698	1,586	1,580	1,704	1,704	1,704	1,697	1,697
R-squared	0.709	0.702	0.763	0.835	0.807	0.846	0.904	0.884
Adj R2	0.553	0.524	0.621	0.747	0.703	0.763	0.852	0.821
Dep. var. mean	0.247	0.0456	0.157	0.195	0.0405	0.154	0.469	0.493

Notes: Standard errors corrected for spatial correlation using a 135km threshold in (), using a 200km threshold in [], clustered at the district level in {}.

Profiling female congressional candidates: Ideology Back



Profiling female congressional candidates: [Back](#)

2017 WM ⇒ Ideology of female candidates: no evidence of an effect

	Democratic			Republican			
	Pre	Post	Diff		Pre	Post	Diff
Close	-1.0050	-1.3380	0.3330	Close	1.1697	1.0816	0.0881
Not Close	-1.0999	-1.5250	0.4250	Not Close	1.2135	1.1354	0.0781
Diff	0.0948	0.1869	-0.0920	Diff	-0.0437	-0.0537	0.0100

Profiling female congressional candidates: campaign contributions

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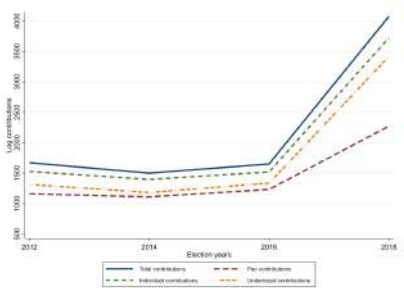


Figure: Democratic

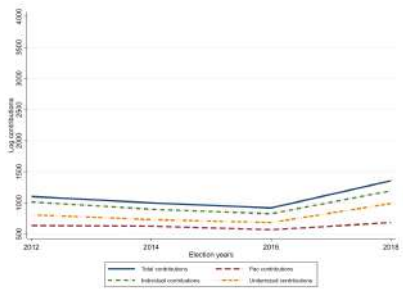


Figure: Republican

Strong Parallel Trends

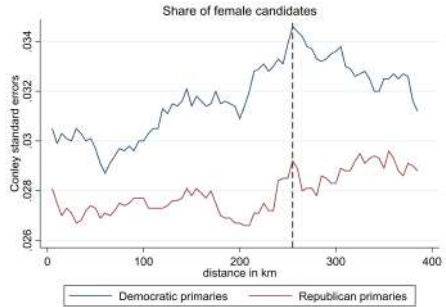
(Callaway, Goodman-Bacon and Sant'Anna, 2021)

- Close to assuming that all units would have experienced the same path of outcomes had they been assigned to the same dose (assumes that on average).
- Involves potential outcomes under different distances rather than untreated potential outcomes only.

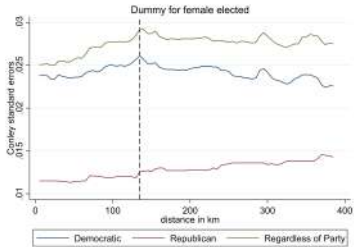
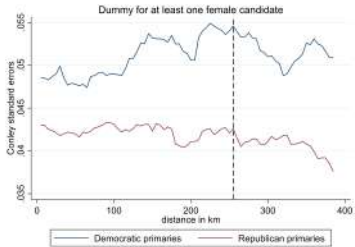
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Inference:

- Threat to validity of inference: there is spatial correlation in both the log distance and the political outcomes → increased probability of type I errors (Colella et al., 2019)
- Coping strategy: allow the error in the regression to correlate over time and across space using a uniform spatial pattern matrix
- Choose the optimal distance threshold following Colella et al. (2019) (i.e. aim for conservative standard errors)



Optimal thresholds (Colella et al., 2019):



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The binary difference in differences

$$y_{pdt} = \theta_d + \Gamma(d)_{st} + \delta POST_t \cdot close_d + X'_{dt}\mu + \epsilon_{pdt} \tag{6}$$

- y_{pdt} : dummy for at least one female candidate and for the share of female candidates in the partisan primary p of district d in election year t
- θ_d : CD fixed effects
- $\Gamma(d)_{st}$: state-election fixed effects
- $POST_t$: dummy for after the March (i.e. 2018)
- $close_d$: dummy for being below a distance threshold
- X'_{dt} : share of votes for the DP in previous US House elections and population density

Event-study parametrization:

$$y_{pdt} = \theta_d + \Gamma(d)_{st} + \sum_{\substack{\tau=2012 \\ \text{with } \tau \neq 2016}}^{\tau=2018} \delta_{\tau} \cdot close_{d\tau} + X'_{dt}\mu + \epsilon_{pdt} \tag{7}$$

- $Time_{\tau}$ is a time-varying battery of dummies for *close* districts in each election year

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Table: Distribution of the population weighted distance above the median.

Centiles of distance	Kilometers
p50	24.41
p55	27.52
p60	30.48
p65	32.95
p70	36.21
p75	40.94
p80	44.44
p85	51.02
p90	61.37
p95	81.04
p100	147.74

Notes: The table shows the distribution of the population weighted distance to the nearest protest

The binary difference in differences

Dependent variable: share of female candidates [Back to robustness](#)

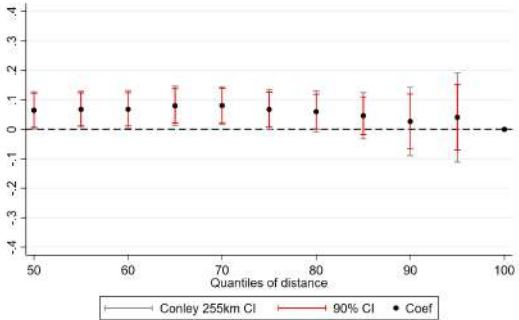


Figure: Republican Primaries

The binary difference in differences - Event study parametrization

Dependent variable: share of female candidates [Back to robustness](#)

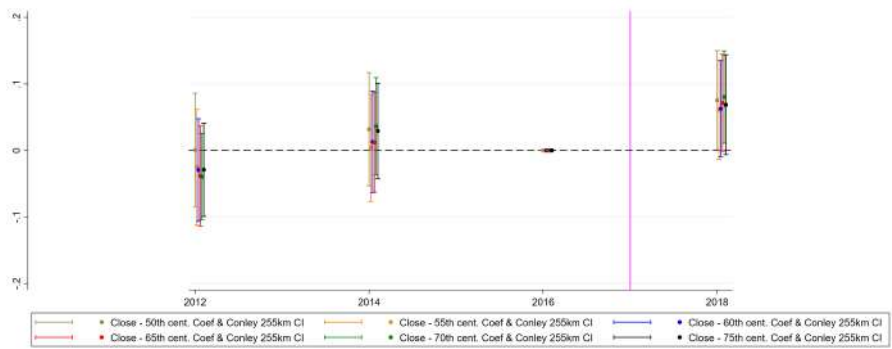


Figure: Republican Primaries

Substituting state-election FE with state-specific linear time trends: primaries

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	Republican Primaries				Democratic Primaries			
	(1) Dummy for at least one female running	(2) Share of females	(3) Share of votes for females	(4) Dummy for female elected	(5) Dummy for at least one female running	(6) Share of females	(7) Share of votes for females	(8) Dummy for female elected
POST - log distance	-0.0694* (0.0373) [0.0345] {0.0399}	-0.0640*** (0.0248) [0.0236] {0.0266}	-0.0678*** (0.0251) [0.0242] {0.0267}	-0.0449 (0.0304) [0.0299] {0.0325}	-0.00258 (0.0484) [0.0475] {0.0445}	-0.0246 (0.0329) [0.0328] {0.0315}	-0.0192 (0.0333) [0.0336] {0.0328}	0.0188 (0.0409) [0.0421] {0.0400}
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,343	1,343	1,343	1,343	1,360	1,360	1,360	1,360
R-squared	0.481	0.524	0.570	0.588	0.515	0.537	0.577	0.562
Adj R2	0.259	0.321	0.386	0.412	0.306	0.337	0.395	0.374
Dep. var. mean	0.224	0.120	0.121	0.117	0.406	0.254	0.279	0.298

Notes: Standard errors corrected for spatial correlation using a 255km threshold in (), using a 300km threshold in [], clustered at the district level in {}.

Substituting state-election FE with state-specific linear time trends: general elections

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	Share of votes for females			Dummy for female elected			Share of votes for party	
	(1) Regardless of party	(2) Republican	(3) Democratic	(4) Regardless of party	(5) Republican	(6) Democratic	(7) Republican	(8) Democratic
POST · log distance	-0.0176 (0.0214) [0.0218] {0.0210}	-0.00442 (0.0106) [0.0107] {0}	-0.0202 (0.0162) [0.0162] {0.0172}	-0.0460** (0.0231) [0.0223] {0}	-0.00568 (0.0124) [0.0123] {0}	-0.0403** (0.0193) [0.0183] {0.0190}	-0.00623 (0.00671) [0.00683] {0.00689}	0.00858 (0.00671) [0.00701] {0.00714}
CD fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
YEAR fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
State-specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,722	1,611	1,603	1,728	1,728	1,728	1,721	1,721
R-squared	0.687	0.696	0.748	0.826	0.805	0.838	0.898	0.875
Adj R2	0.564	0.566	0.639	0.759	0.730	0.775	0.858	0.826
Dep. var. mean	0.249	0.0480	0.157	0.197	0.0440	0.153	0.469	0.492

Notes: Standard errors corrected for spatial correlation using a 135km threshold in (), using a 200km threshold in [], clustered at the district level in {}.

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