

# Does the Early Bird always Get the Worm?

## How First-round Victories Affect the Chance of Winning the Second Round

Adrián Lucardi  
ITAM  
[adrian.lucardi@itam.mx](mailto:adrian.lucardi@itam.mx)

Juan Pablo Micozzi  
ITAM  
[juan.micozzi@itam.mx](mailto:juan.micozzi@itam.mx)

Agustín Vallejo  
Hobby School, UH  
[avallejo7@uh.edu](mailto:avallejo7@uh.edu)

International Methods Colloquium

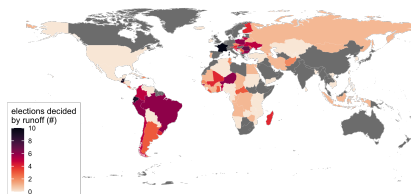
April 15, 2022

# Runoff / Two-round electoral systems

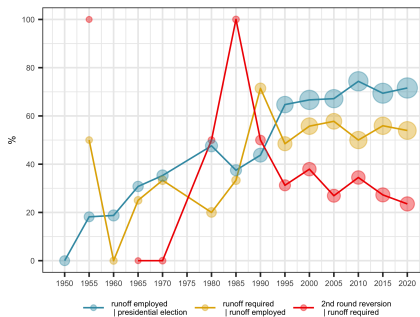


# Runoff / Two-round electoral systems

by country



over time



# Runoff / Two-round electoral systems

- Electoral coordination (Duverger 1951; Cox 1997; Jones 1997; Clark and Golder 2006; Fujiwara 2011; Singer 2013; Bouton, Gallego, Llorente-Saguer and Morton 2021)
- Prevent Condorcet losers from winning (unless threshold  $< 50\%$ : Bouton 2013)
- Induce policy moderation (Bordignon, Nannicini and Tabellini 2016)
- May hinder governability (Pérez-Liñán 2006)

# Runoffs permit second round reversals...

# Runoffs permit second round reversals...

- ... but voters don't seem to take much advantage of the possibility (Granzier, Pons and Tricaud 2021)

# Questions

- 1 Does finishing first in R1 confer any benefit(s) in R2?
- 2 How do  
voters; and  
donors  
respond to R1 results?

# Our contribution

## 1 Sample: executive elections

- Mainly presidential elections + Brazil
- Granzier, Pons and Tricaud (2021): legislative elections in France & other countries



# Our contribution

## 1 Sample: executive elections

- Mainly presidential elections + Brazil
- Granzier, Pons and Tricaud (2021): legislative elections in France & other countries

## 2 Understanding of mechanisms

- Ideological polarization
- Financial contributions

# Theoretical framework: The power of **ranks**

- Amply documented

Chun and Larrick (2021); Kiss and Simonovits (2014); Morton, Muller, Page and Torgler (2015); Anagol and Fujiwara (2016); Hix, Hortala-Vallve and Riambau-Armet (2017); Granzier, Pons and Tricaud (2021); Gulzar, Robinson and Ruiz (2021); but cf. Chatterjee and Kamal (2020)

# Theoretical framework: The power of **ranks**

- Amply documented

Chun and Larrick (2021); Kiss and Simonovits (2014); Morton, Muller, Page and Torgler (2015); Anagol and Fujiwara (2016); Hix, Hortala-Vallve and Riambau-Armet (2017); Granzier, Pons and Tricaud (2021); Gulzar, Robinson and Ruiz (2021); but cf. Chatterjee and Kamal (2020)

- Election & ranks: **mechanisms**

- 1 Coordination by **voters** or **elites** (Anagol and Fujiwara 2016; Granzier, Pons and Tricaud 2021)

(irrelevant if only 2 candidates in R2)

# Theoretical framework: The power of **ranks**

- Amply documented

Chun and Larrick (2021); Kiss and Simonovits (2014); Morton, Muller, Page and Torgler (2015); Anagol and Fujiwara (2016); Hix, Hortala-Vallve and Riambau-Armet (2017); Granzier, Pons and Tricaud (2021); Gulzar, Robinson and Ruiz (2021); but cf. Chatterjee and Kamal (2020)

- Election & ranks: **mechanisms**

- ➊ Coordination by **voters** or **elites** (Anagol and Fujiwara 2016; Granzier, Pons and Tricaud 2021)  
(irrelevant if only 2 candidates in R2)
- ➋ **Opportunistic elites** support expected winner (Gulzar, Robinson and Ruiz 2021)

# Theoretical framework: The power of **ranks**

- Amply documented

Chun and Larrick (2021); Kiss and Simonovits (2014); Morton, Muller, Page and Torgler (2015); Anagol and Fujiwara (2016); Hix, Hortala-Vallve and Riambau-Armet (2017); Granzier, Pons and Tricaud (2021); Gulzar, Robinson and Ruiz (2021); but cf. Chatterjee and Kamal (2020)

- Election & ranks: **mechanisms**

- ➊ Coordination by **voters** or **elites** (Anagol and Fujiwara 2016; Granzier, Pons and Tricaud 2021)  
(irrelevant if only 2 candidates in R2)
- ➋ **Opportunistic elites** support expected winner (Gulzar, Robinson and Ruiz 2021)
- ➌ Voters **bandwagon** behind the (expected) winner (Kiss and Simonovits 2014; Morton, Muller, Page and Torgler 2015; Hix, Hortala-Vallve and Riambau-Armet 2017; Granzier, Pons and Tricaud 2021; but cf. Chatterjee and Kamal 2020)  
(or differential turnout; Kiss and Simonovits 2014; Morton, Muller, Page and Torgler 2015 )

# Theoretical framework: The power of **ranks**

- Amply documented

Chun and Larrick (2021); Kiss and Simonovits (2014); Morton, Muller, Page and Torgler (2015); Anagol and Fujiwara (2016); Hix, Hortala-Vallve and Riambau-Armet (2017); Granzier, Pons and Tricaud (2021); Gulzar, Robinson and Ruiz (2021); but cf. Chatterjee and Kamal (2020)

- Election & ranks: **mechanisms**

- 1 Coordination by **voters** or **elites** (Anagol and Fujiwara 2016; Granzier, Pons and Tricaud 2021)  
(irrelevant if only 2 candidates in R2)
- 2 **Opportunistic elites** support expected winner (Gulzar, Robinson and Ruiz 2021)
- 3 Voters **bandwagon** behind the (expected) winner (Kiss and Simonovits 2014; Morton, Muller, Page and Torgler 2015; Hix, Hortala-Vallve and Riambau-Armet 2017; Granzier, Pons and Tricaud 2021; but cf. Chatterjee and Kamal 2020)  
(or differential turnout; Kiss and Simonovits 2014; Morton, Muller, Page and Torgler 2015 )
- 4 Information **cue**:  
rationally ignorant voters economize attention... (Downs 1957; Chun and Larrick 2021)  
... until elections near... (Marshall 2019; 2022)  
... or there's more at stake → polarized election (Granzier, Pons and Tricaud 2021; Muñoz and Meguid 2021)

# Predictions

$H_1$ . Finishing first in R1 improves electoral performance in R2

# Predictions

$H_1$ . Finishing first in R1 improves electoral performance in R2

$H_2$ . The advantage is greater when the candidates in R2 are ideologically similar



# Predictions

- $H_1$ . Finishing first in R1 improves electoral performance in R2
- $H_2$ . The advantage is greater when the candidates in R2 are ideologically similar
- $H_3$ . Candidates who finish first in R1 raise more money for R2
- Again, the effect should be stronger if the candidates are ideologically close

# Terminology and clarifications

- Runoff system

- 1 The most voted candidate needs a minimum % of the vote to win in R1; and
- 2 If no candidate wins in R1, the same electorate must choose between  $N$  top-placed in R2

We focus on cases where  $N = 2$  exclusively

# Terminology and clarifications

- Runoff system

- ① The most voted candidate needs a minimum % of the vote to win in R1; and
- ② If no candidate wins in R1, the same electorate must choose between  $N$  top-placed in R2

We focus on cases where  $N = 2$  exclusively

- First / first-placed / 1st. Most voted candidate in R1
- Runner-up / second / second-placed / 2nd. Second most voted candidate in R1  
(If one of these drops from R2, we still look at outcomes for them)

# Empirical analysis: Roadmap

## 1 Regression discontinuity (RD) estimate of

first-placed in R1  $\rightarrow$  outcome R2

- Presidential elections 1951-2020
- Gubernatorial elections: Argentina, Bolivia, Brazil, Chile
- Municipal elections: Brazil, San Luis Potosí (Mexico)

## 2 Conditioning on ideological polarization

- **Close** elections: ideological distance between 1st and 2nd below sample median
- **Polarized** elections: ideological distance between 1st and 2nd above sample median

## 3 Brazil (2002-20): RD estimate of

first-placed in R1  $\rightarrow$  \$ raised for R2

## 4 Conditioning on ideological polarization

# Samples (I): Election outcomes

sample	office	period covered	number of districts	runoff rule employed	second round needed	% second round	number of reversions	% reversions
World	president	1951-2020	69	352	182	51.7	58	31.9
Brazil (governor)	governor	1994-2018	27	177	84	47.5	30	35.7
Brazil (mayor)	mayor	1996-2020	97	519	300	57.8	75	25.0
Argentina	governor	1973-2021	24	51	30	58.8	8	26.7
Bolivia	governor	2010-2021	9	19	6	31.6	3	50.0
Chile	governor	2021-2021	16	16	13	81.2	3	23.1
Mexico	mayor	1997-2000	58	116	41	35.3	12	29.3
			300	1250	656	52.5	189	28.8

## Four samples

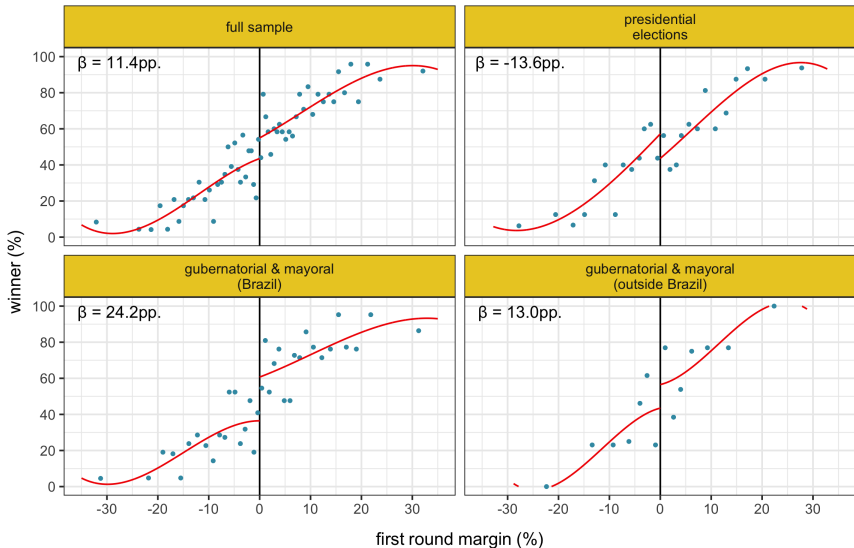
- 1 Full / All observations ( $N_{\text{runoff}} = 656$ )
- 2 Presidential elections ( $N_{\text{runoff}} = 182$ )
- 3 Gubernatorial and mayoral (Brazil) ( $N_{\text{runoff}} = 384$ )
- 4 Gubernatorial and mayoral (non-Brazil) ( $N_{\text{runoff}} = 90$ )

# Analysis (I): Electoral outcomes

- Unit of observation: candidate-election
  - Elections requiring runoff only
  - 1st and 2nd in R1 only
- Outcomes
  - *winner* (0/100): declared election winner (even if withdrawals)
  - *vote share*<sub>R2</sub> (0 : 100): vote share in R2 (= 0 if withdrew)
- RD estimates
  - Running variable: *first round margin* (-50 : 50)
  - Non-parametric MSERD estimate (Calonico, Cattaneo and Titiunik 2014)
  - Local linear regression w/triangular kernel weights
  - SES clustered by election
  - We report conventional estimates with robust 95% CIs and *p*-values

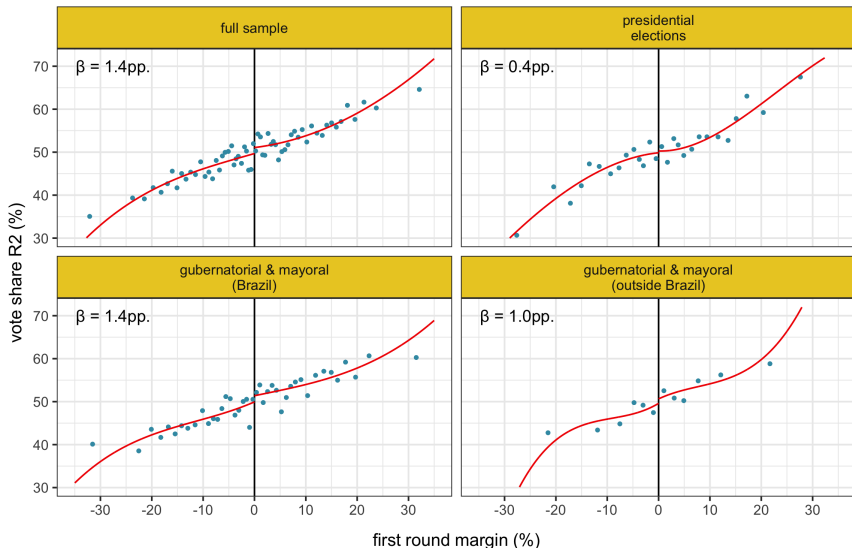
# Results (1a): Mimicking variability RD plots

outcome: **winner** (0/100)



# Results (1a): Mimicking variability RD plots

outcome: **vote share**<sub>R2</sub> (0 : 100)

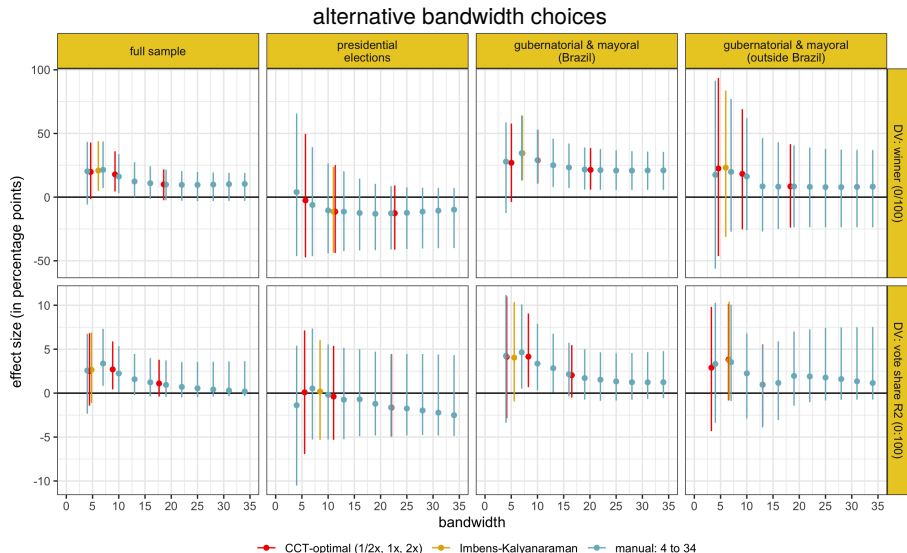




## Results (1b): RD estimates

(a) DV: <i>winner</i> (0/100)	estim.	95% CI	<i>p</i> -val.	bwd.	$N^- N^+$
full sample	17.84	[4.45:35.97]	0.01	9.28	369 369
presidential elections	-11.42	[-43.83:25.12]	0.59	11.35	122 122
gubernatorial & mayoral (Brazil)	28.95	[10.73:52.90]	0.00	10.06	219 219
gubernatorial & mayoral (outside Brazil)	18.26	[-25.26:69.07]	0.36	9.15	55 55
(b) DV: <i>vote share</i> <sub>R2</sub> (0:100)					
full sample	2.70	[0.43:5.88]	0.02	8.84	352 354
presidential elections	-0.39	[-5.31:5.38]	0.99	11.04	116 117
gubernatorial & mayoral (Brazil)	4.15	[0.69:9.06]	0.02	8.27	188 190
gubernatorial & mayoral (outside Brazil)	3.82	[-0.83:10.15]	0.10	6.51	50 50

# Results (1b): RD estimates



# Results (1c): Robustness

- Election-specific characteristics balanced by construction
  - (Density of the running variable: ditto)

# Results (ic): Robustness

- Election-specific characteristics balanced by construction
  - (Density of the running variable: ditto)
- Additional estimates
  - Brazil 2002-2020 only
    - similar results for *winner* (0/100)
    - weaker & insignificant results for *vote share*<sub>R2</sub> (0 : 100)
  - Observations with nonmissing ideology data
  - Controlling for candidate ideology
  - CER-optimal bandwidth (de Magalhães, Hangartner, Hirvonen, Meriläinen, Ruiz and Tukiainen 2020)
  - Second-order polynomial
  - Random reference party

# Results (1c): Robustness

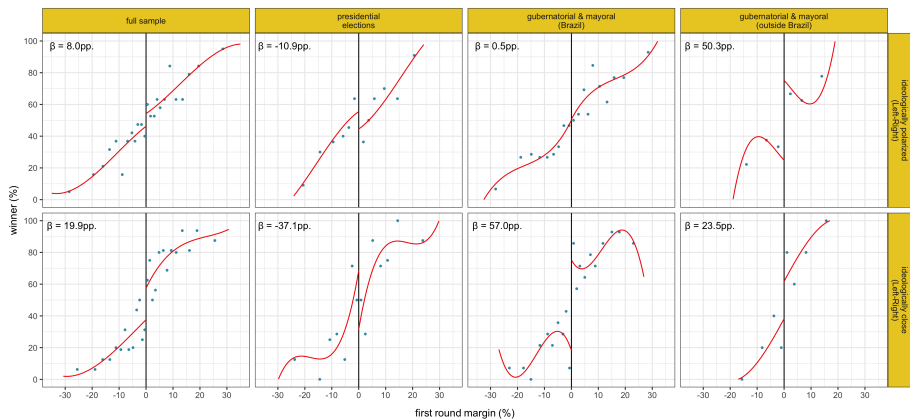
- Election-specific characteristics balanced by construction
  - (Density of the running variable: ditto)
- Additional estimates
  - Brazil 2002-2020 only
    - similar results for *winner* (0/100)
    - weaker & insignificant results for *vote share*<sub>R2</sub> (0 : 100)
  - Observations with nonmissing ideology data
  - Controlling for candidate ideology
  - CER-optimal bandwidth (de Magalhães, Hangartner, Hirvonen, Meriläinen, Ruiz and Tukiainen 2020)
  - Second-order polynomial
  - Random reference party
- Placebo outcomes: candidate ideology
  - Presidential elections: first-placed candidate more left-wing and post-materialist than second-placed
  - Brazil (and other samples): null effect

# Mechanisms (I): Ideological polarization

- Source data: v-Party v.1 (Lührmann et al 2020)
- Three (normalized) ideology measures
  - ① Left-Right: v2pariglef
  - ② (II) Liberalism: factor score of 5 variables (v2paanteli, v2papeople, v2paopresp, v2paplur and v2paviol)
  - ③ Post-Materialism: factor score of 5 variables (v2paminor, v2paimmig, v2palgbt, v2parelig and v2pawomlab)
- Polarization =  $|\text{ideology}_{1\text{st}} - \text{ideology}_{2\text{nd}}|$ 
  - Ideologically polarized election:  $>$  median
  - Ideologically close election:  $<$  median
  - Calculated separately for each (sub)sample

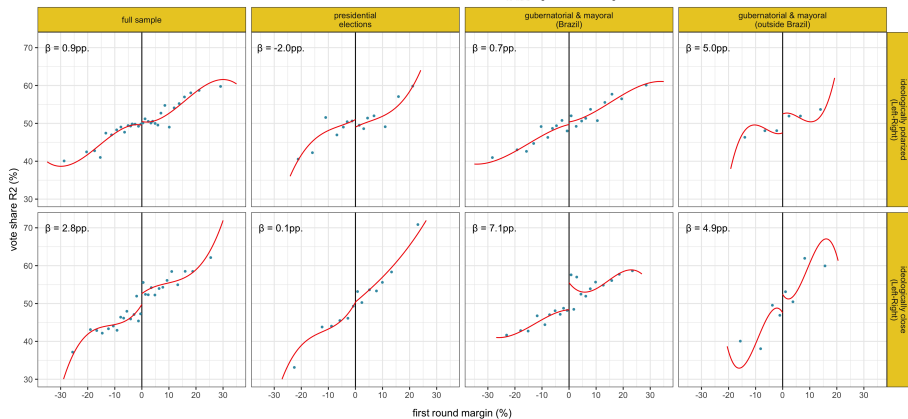
# Results (11a): Raw data + Mimicking variability RD plots

outcome: **winner** (0/100)



# Results (11a): Raw data + Mimicking variability RD plots

outcome: **vote share**<sub>R2</sub> (0 : 100)





## Results (11b): RD estimates, Left-Right

(a) DV: <i>winner</i> (0/100)	id. distance	estim.	95% ci	p-val.	bwd.	$N^- N^+$
full sample	polarized	4.80	[-25.93:34.52]	0.78	11.71	148 148
	close	21.44	[-4.54:46.35]	0.11	10.80	132 132
presidential elections	polarized	-16.59	[-89.87:48.78]	0.56	8.73	37 37
	close	-29.35	[-75.31:7.06]	0.10	10.45	34 34
gubernatorial & mayoral (Brazil)	polarized	-3.50	[-49.07:31.93]	0.68	11.50	79 79
	close	65.47	[38.12:105.13]	0.00	5.69	53 53
gubernatorial & mayoral (outside Brazil)	polarized	53.44	[-34.56:147.38]	0.22	8.34	17 17
	close	20.07	[-82.43:116.09]	0.74	9.15	13 13
(b) DV: <i>vote share</i> <sub>R2</sub> (0:100)						
full sample	polarized	0.84	[-2.98:5.54]	0.56	9.02	126 126
	close	5.18	[-0.36:11.62]	0.07	10.48	127 129
presidential elections	polarized	-1.75	[-6.62:2.05]	0.30	6.73	30 30
	close	0.04	[-12.96:11.77]	0.92	7.49	24 24
gubernatorial & mayoral (Brazil)	polarized	1.43	[-3.67:7.85]	0.48	10.22	73 73
	close	7.94	[-1.81:19.68]	0.10	7.30	64 66
gubernatorial & mayoral (outside Brazil)	polarized	6.57	[-7.80:21.91]	0.35	9.28	17 17
	close	6.08	[0.16:13.18]	0.04	4.75	9 9

# Sample (iia): Financial contributions

- Brazil 2002-2020 only ( $N_{\text{runoff}} = 298$ )
  - Gubernatorial: 2002, 2006, 2010, 2014, 2018
  - Mayoral: 2004, 2008, 2012, 2016, 2020
- Electoral rule: majority runoff
  - All gubernatorial elections
  - Municipal elections: only if >200k registered voters
  - 50% threshold; otherwise 1st and 2nd go to R2
  - R2: most voted candidate wins
  - Withdrawals extremely rare

# Sample (iib): Financial contributions

- Extremely rich data
  - $\approx$  314k individual donations
  - Date, amount, donors type & type of transaction for (almost) all
  - $\approx$  152k donor-candidate observations, of which
  - $\approx$  74k went to 1st or 2nd candidate in elections requiring a runoff
- Information on donor type
  - Individual
  - Corporation
  - Politicians (other candidates and party organizations)
  - Candidate's own resources (incl. interest payments)
  - Other (incl. internet donations)
- Type of transaction
  - Monetary (cash, bank transfer, check, credit card)
  - Non-monetary (services, durable goods, etc)

# Analysis (II): Financial contributions

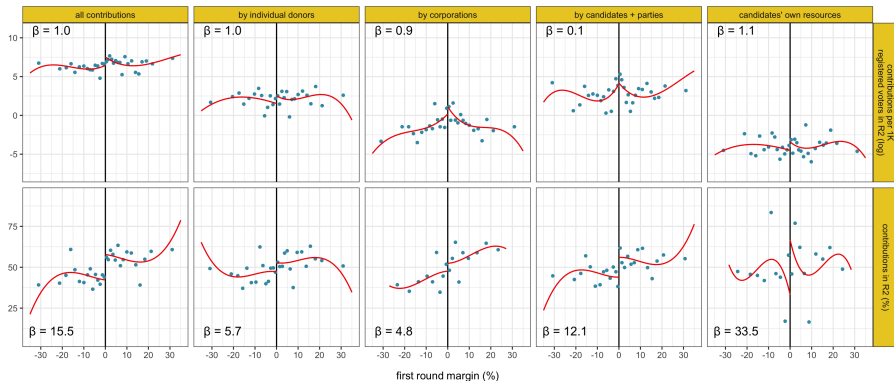
- Outcomes

- *contributions per 1k registered voters in R2 (log)*
- *contributions in R2 (%)*

- Disaggregated by donor type

- All contributions
- By individuals
- By corporations
- By candidates + parties
- Candidates' own resources

# Results (IIIA): Candidate-level RD plots



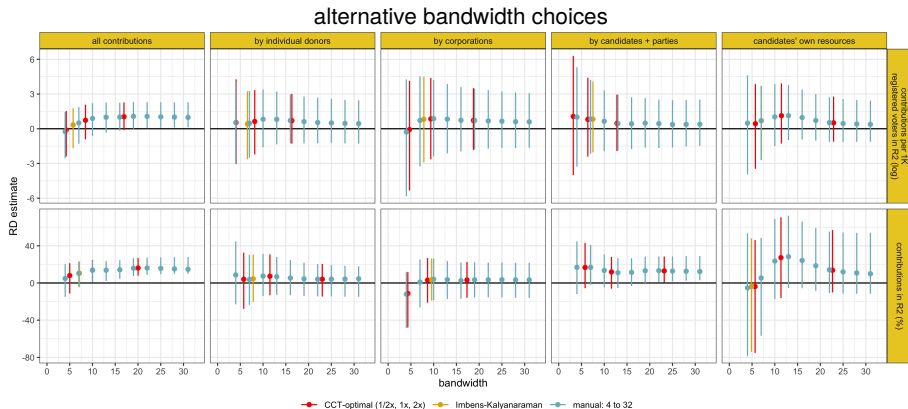
## Results (111b): Financial contributions, by candidate

(a) DV: contrib. per 1k reg. voters in R2 (log)	estim.	95% ci	p-val.	bwd.	$N^- N^+$	$\bar{y}_{\text{contr.}}$
all contributions	0.73	[-0.92:2.08]	0.45	8.46	149 149	6.16
by individual donors	0.63	[-2.22:3.34]	0.69	8.17	148 148	2.03
by corporations	0.85	[-2.64:4.39]	0.62	9.37	162 162	-1.39
by candidates + parties	0.81	[-2.40:4.41]	0.56	6.40	117 117	2.54
candidates' own resources	1.13	[-1.28:3.92]	0.32	11.45	184 184	-4.05

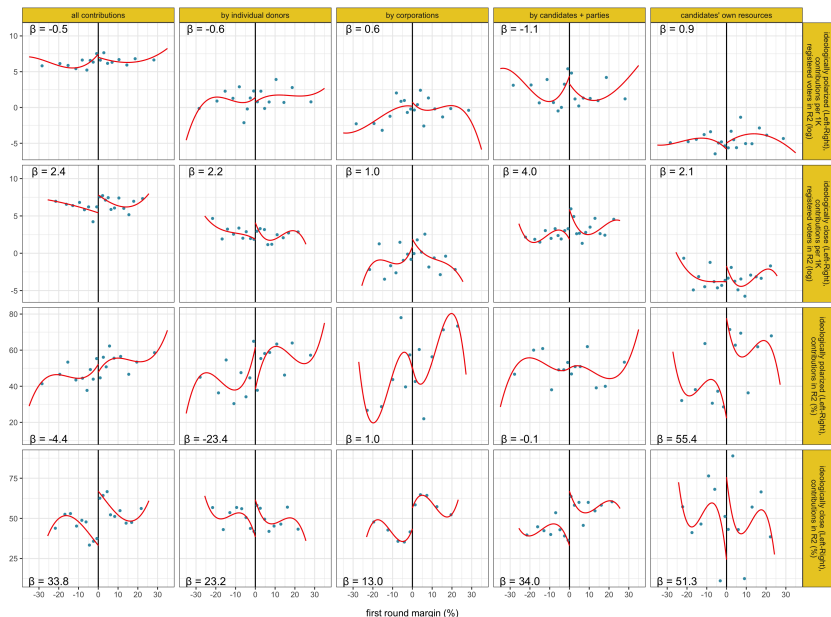
(c) DV: contributions in R2 (%)

all contributions	13.77	[0.81:24.72]	0.04	10.01	168 168	44.22
by individual donors	7.25	[-13.20:30.78]	0.43	11.51	163 163	46.35
by corporations	3.09	[-21.18:26.77]	0.82	8.66	83 83	43.51
by candidates + parties	11.89	[-6.08:28.01]	0.21	11.59	147 147	45.58
candidates' own resources	27.27	[-16.13:70.58]	0.22	11.35	70 70	47.62

# Results (111b): Financial contributions, by candidate



# Results (iva): By ideological polarization (Left-Right)





# Results (ivb): By ideological polarization (Left-Right)

(a) dv: contrib. per 1k reg. voters in R2 (log)		id. distance	estim.	95% ci	p-val.	bwd.	$N^- N^+$	$\bar{y}_{\text{contr.}}$
all contributions	polarized		-0.67	[-3.06:1.29]	0.42	9.80	70 70	6.17
	close		2.23	[-0.26:4.49]	0.08	8.45	73 73	6.15
by individual donors	polarized		-0.79	[-5.96:4.10]	0.72	7.78	60 60	0.93
	close		1.40	[-2.44:5.21]	0.48	8.59	73 73	2.73
by corporations	polarized		0.59	[-4.06:5.94]	0.71	10.68	72 72	-0.68
	close		1.41	[-5.08:7.99]	0.66	7.01	63 63	-1.02
by candidates + parties	polarized		-0.91	[-6.54:5.02]	0.80	6.74	54 54	2.23
	close		3.63	[-0.92:9.54]	0.11	6.51	55 55	2.45
candidates' own resources	polarized		0.04	[-3.23:2.61]	0.83	9.10	68 68	-4.78
	close		0.92	[-4.97:5.70]	0.89	7.63	67 67	-3.42
(b) dv: contributions in R2 (%)								
all contributions	polarized		-10.52	[-31.11:4.48]	0.14	8.11	61 61	46.27
	close		34.48	[16.01:54.26]	0.00	9.54	74 74	44.18
by individual donors	polarized		-19.18	[-51.24:3.39]	0.09	10.05	58 58	44.89
	close		19.07	[-13.57:57.32]	0.23	9.20	69 69	50.23
by corporations	polarized		-9.72	[-45.58:31.21]	0.71	9.64	42 42	45.58
	close		21.98	[-16.23:61.06]	0.26	8.42	43 43	40.72
by candidates + parties	polarized		-3.67	[-28.13:14.54]	0.53	9.36	49 49	50.98
	close		32.88	[7.35:68.02]	0.01	8.75	62 62	42.30
candidates' own resources	polarized		11.30	[-85.22:79.66]	0.95	8.66	21 21	38.38
	close		33.76	[-30.68:93.31]	0.32	9.82	33 33	50.25

# Results (III-iv): Robustness

- Election-specific characteristics balanced by construction
  - (Density of the running variable: ditto)
- Similar results with:
  - Alternative bandwidths
  - Monetary contributions only
  - Observations with nonmissing ideology data
  - Controlling for candidate ideology
  - CER-optimal bandwidth (de Magalhães, Hangartner, Hirvonen, Meriläinen, Ruiz and Tukiainen 2020)
  - Second-order polynomials
  - Random reference party
- Placebo outcomes: contributions in R1

# Summing up

- Frontrunner advantage in runoff elections
  - Driven by Brazil
  - Presidential elections are different

# Summing up

- Frontrunner advantage in runoff elections
  - Driven by Brazil
  - Presidential elections are different
- Mechanisms
  - Exclude coordination by construction
  - Ideological polarization matters → frontrunner advantage concentrated in non-polarized contests

# Summing up

- Frontrunner advantage in runoff elections
  - Driven by Brazil
  - Presidential elections are different
- Mechanisms
  - Exclude coordination by construction
  - Ideological polarization matters → frontrunner advantage concentrated in non-polarized contests
  - Role of financial contributions ambiguous → sensitive to measure & specification, stronger in ideologically close contests

# Summing up

- Frontrunner advantage in runoff elections
  - Driven by Brazil
  - Presidential elections are different
- Mechanisms
  - Exclude coordination by construction
  - Ideological polarization matters → frontrunner advantage concentrated in non-polarized contests
  - Role of financial contributions ambiguous → sensitive to measure & specification, stronger in ideologically close contests
  - Voters' access to / incentives to acquire information → also relevant for presidential elections

# Discussion

- Rationally informed voters use **ranks as shortcuts**...
  - ... except when it pays off to get informed (**polarization**)...
  - ...or information is readily available (**presidential** elections)
- **Donors** anticipate and take advantage. But:
  - Small sample sizes → unreliable estimates...
  - ... to what extent do donors' contributions change voters' behavior?

# Thanks!

Adrián Lucardi  
ITAM

[www.adrianlucardi.com](http://www.adrianlucardi.com)

Juan Pablo Micozzi  
ITAM

[www.jpmicozzi.net](http://www.jpmicozzi.net)

Agustín Vallejo  
Hobby School, UN

[www.agustin-vallejo.com](http://www.agustin-vallejo.com)