Electoral Crime Under Democracy: Evidence from Brazil

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Abstract

TBU

Keywords: electoral politics; judicial politics; comparative politics; illegal behavior and the enforcement of law; political economy.

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Table 1: Descriptive Statistics

	N	Mean	St. Dev.	Min	Max
Age	9,470	46.34	11.02	17	86
Male	9,470	.793	.405	0	1
Political Experience	9,470	.091	.287	0	1
Campaign Expenditures (in R$)	9,470	52,555	210,742	0	4,949,250
Convicted at Trial	9,470	.641	.480	0	1
Convicted on Appeal	9,470	.537	.499	0	1
Probability of Election	9,442	.191	.393	0	1
Vote Distance to Election Cutoff (in p.p.)	9,442	−4.09	9.55	−92.82	12.83
Total Vote Share (in p.p.)	9,442	10.13	17.98	0.00	100.00

Table 2: Electoral Crime Rulings

	Appeals		Percent
Trial	Affirmed	Reversed	Reversed
Not Convicted	3380	22	0.6
Convicted	5059	1009	16.6

Table 3: First-Stage Regressions

	Outcome: Convicted at Trial		
	(1)	(2)	(3)
Convicted on Appeal	.766***	.753***	.738***
	(.006)	(.007)	(.009)
Individual Controls	-	Yes	Yes
Fixed-Effects	-	-	Yes
Observations	9,470	9,470	9,470
Adjusted-R^2	.633	.649	.861
F-stat	16,364.9***	1,094.0***	21.7***

Note: First-Stage regressions here report the correlation between being convicted at trial and being convicted on appeal for all candidates who have had their candidacy challenged under charges of electoral irregularities. I present results including and excluding individual politician characteristics; municipal, electoral, and party fixed-effects; and use robust standard errors. *p<0.1; **p<0.05; ***p<0.01

Figure 1: Instrument Point Estimates and CIs

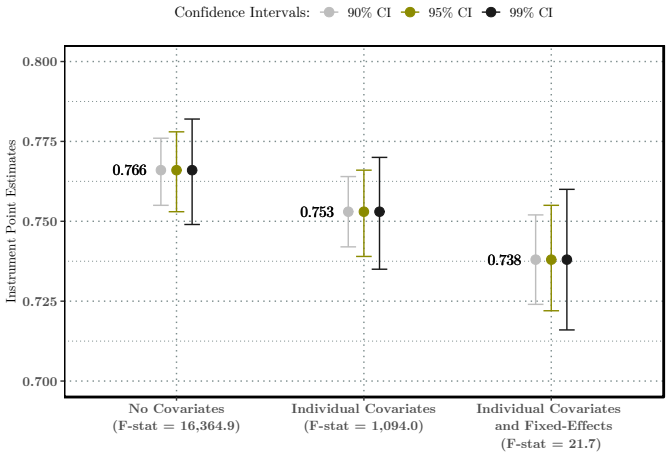

Table 4: Hausman Test of Instrument Strength

Outcome	Hausman Statistic	p-value
1. Probability of Election	109.28	.000
2. Total Vote Share	205.57	.000
3. Vote Distance to Election Cutoff:	1.88	.170
3.1. City Councilor	65.44	.000
3.2. Mayor	93.43	.000

Table 5: The Effect of Electoral Crime on the Probability of Election

	Outcome: Probability of Election					
	OLS	OLS	OLS	IV	IV	IV
	(1)	(2)	(3)	(4)	(5)	(6)
Convicted at Trial	$-.208^{***}$	$-.151^{***}$	$-.163^{***}$	$-.272^{***}$	$-.213^{***}$	$-.231^{***}$
	(.009)	(.009)	(.014)	(.011)	(.010)	(.016)
Individual Controls	-	Yes	Yes	-	Yes	Yes
Fixed-Effects	-	-	Yes	-	-	Yes
Observations	9,442	9,442	9,442	9,442	9,442	9,442
Adjusted-R^2	.065	.149	.303	.059	.143	.300
F-stat	653.58^{***}	104.02^{***}	2.46^{***}	707.35^{***}	108.9^{***}	2.47^{***}

Note: The regressions here estimate the effect of being convicted at trial on the probability of election for all candidates who have had their candidacy challenged under charges of electoral irregularities. Columns 1 and 4 display models not including individual candidate characteristics; columns 2 and 5 include age, gender, marital status, education level, political experience, and the amount spent in their campaign; columns 3 and 6 also include municipal, electoral, and party fixed-effects. I report robust standard errors for all specifications in this table. *p<0.1; **p<0.05; ***p<0.01

Table 6: The Effect of Electoral Crime on the Total Vote Share

	Outcome: Total Vote Share (in p.p.)					
	OLS	OLS	OLS	IV	IV	IV
	(1)	(2)	(3)	(4)	(5)	(6)
Convicted on Appeal	-12.945^{***}	-8.316^{***}	-9.943^{***}	-16.804^{***}	-11.765^{***}	-13.254^{***}
	(.418)	(.337)	(.529)	(.478)	(.399)	(.624)
Individual Controls	-	Yes	Yes	-	Yes	Yes
Fixed-Effects	-	-	Yes	-	-	Yes
Observations	9,442	9,442	9,442	9,442	9,442	9,442
Adjusted-R^2	.119	.379	.606	.109	.371	.602
F-stat	$1{,}278.91^{***}$	361.57^{***}	6.15^{***}	$1{,}360.8^{***}$	368.19^{***}	6.14^{***}

Note: The regressions here estimate the effect of being convicted at trial on the total vote share for all candidates who have had their candidacy challenged under charges of electoral irregularities. Columns 1 and 4 display models not including individual candidate characteristics; columns 2 and 5 include age, gender, marital status, education level, political experience, and the amount spent in their campaign; columns 3 and 6 also include municipal, electoral, and party fixed-effects. I report robust standard errors for all specifications in this table. *p<0.1; **p<0.05; ***p<0.01

Table 7: The Effect of Electoral Crimes on the Vote Distance to Election Cutoff

	Outcome: Vote Distance to Election Cutoff (in p.p.)			
	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)
Convicted at Trial	$-.575^{***}$	$-.849^{***}$	-5.172^{***}	-7.381^{***}
	(.064)	(.075)	(1.905)	(2.184)
Individual Controls	Yes	Yes	Yes	Yes
Fixed-Effects	Yes	Yes	Yes	Yes
Sample	City Council	City Council	Mayor	Mayor
Observations	7,100	7,100	2,342	2,342
Adjusted-R^2	.431	.428	.384	.382
F-stat	3.54^{***}	1.86^{***}	3.55^{***}	1.85^{***}

Note: The regressions here estimate the effect of being convicted at trial on the distance to the election cutoff for candidates who have had their candidacy challenged under charges of electoral irregularities. All models include individual candidate characteristics and municipal, electoral, and party fixed-effects. Since election rules differ by office type, I split the sample into city council candidates (columns 1 and 2) and mayor candidates (columns 3 and 4). I report robust standard errors for all specifications in this table. *p<0.1; **p<0.05; ***p<0.01

Table 8: Coefficient Stability Test For Various R^2_{max}

	Individual Covariate Models			Individual Covariate and Fixed-Effects Models		
Outcomes:	$R^2_{ur}+(R^2_{ur}-R^2_r)$	$2 \cdot R^2_{ur}$	R^2 for $\beta=0$	$R^2_{ur}+(R^2_{ur}-R^2_r)$	$2 \cdot R^2_{ur}$	R^2 for $\beta=0$
Probability of Election	2.63	1.50	-	3.55	3.10	-
	(.24)	(.30)	(.37)	(.96)	(1.00)	(2.10)
Vote Share	1.80	1.23	-	7.26	7.26	-
	(.64)	(.76)	(.85)	(1.00)	(1.00)	(2.73)
Vote Distance to Cutoff (City Councilor)	6.72	5.05	-	63.08	63.08	-
	(.22)	(.25)	(.75)	(1.00)	(1.00)	(25.78)
Vote Distance to Cutoff (Mayor)	2.44	1.23	-	4.66	4.66	-
	(.27)	(.35)	(.39)	(1.00)	(1.00)	(1.61)

Table 9: Heterogeneous Sentencing across Trial and Appeals

	(1)	(2)	(3)	(4)	(5)	(6)
	β_{trial}	β_{appeals}	$\beta_{\text{difference}}$	s.e.	t-stat	p-value
Elected to Office	−.223	−.267	.044	.085	.510	.610
Age	−.001	.000	−.001	.003	−.424	.671
Male	.029	.022	.007	.039	.176	.861
Political Experience	−.089	−.013	−.076	.079	−.964	.335
Campaign Expenditures (ln)	−.029	−.028	−.001	.029	−.034	.973
Marital Status:						
Divorced	−.006	.026	−.032	.038	−.839	.402
Legally Divorced	.066	.028	.039	.048	.795	.427
Single	−.008	.043	−.051	.040	−1.276	.202
Widowed	.029	−.011	.040	.064	.626	.532
Educational Levels:						
Completed ES/MS	−.160	−.234	.074	.090	.819	.413
Incomplete ES/MS	−.116	−.259	.143	.134	1.066	.286
Can Read and Write	−.066	−.286	.220	.174	1.268	.205
Completed HS	−.191	−.259	.068	.085	.799	.424
Incomplete HS	−.108	−.264	.156	.132	1.180	.238
Completed College	−.218	−.300	.083	.099	.833	.405
Incomplete College	−.177	−.270	.093	.125	.742	.458

Note: In this table, I report the coefficients of two regressions using the same covariates on the probability of receiving an unfavorable ruling at trial (column 1) and on appeals (column 2). I then recover the distributions of the differences in betas and test H0: $\beta_{\text{difference}} = 0$ for all covariates in the regressions (columns 3-6). Robust standard errors are clustered at the municipal-election pair level (equivalent to the judge-level error shared by all candidates in one municipality during one election period); party-fixed effects are included in both regressions but are not reported here.

Table 10: The Effect of Electoral Crimes on Voter Engagement

	Party-Level		Election-Level	
	Outcome: Voter Turnout (percent)	Outcome: Invalid Votes (percent)	Outcome: Voter Turnout (percent)	Outcome: Invalid Votes (percent)
	(1)	(2)	(3)	(4)
Share of Candidacies Invalid at Trial	.003	.222***	−.001	.134*
	(.007)	(.076)	(.009)	(.070)
Individual Controls	-	-	-	-
Fixed-Effects	Yes	Yes	Yes	Yes
Observations	5,322	5,322	3,757	3,757
Adjusted-R^2	.997	.973	.995	.946
F-stat	214.3***	354.1***	81.8***	124.5***

Note: The regressions here estimate the effect of the share of candidates convicted at trial overall the total office vacancies on voter turnout and the number of invalid votes (both logged). I aggregate observations up to the party and election level and control for municipality and election year fixed-effects. I report robust standard errors, clustered by elections and municipalities, for all specifications in this table. *p<0.1; **p<0.05; ***p<0.01

Figure 2: Instrument Correlation with Covariates

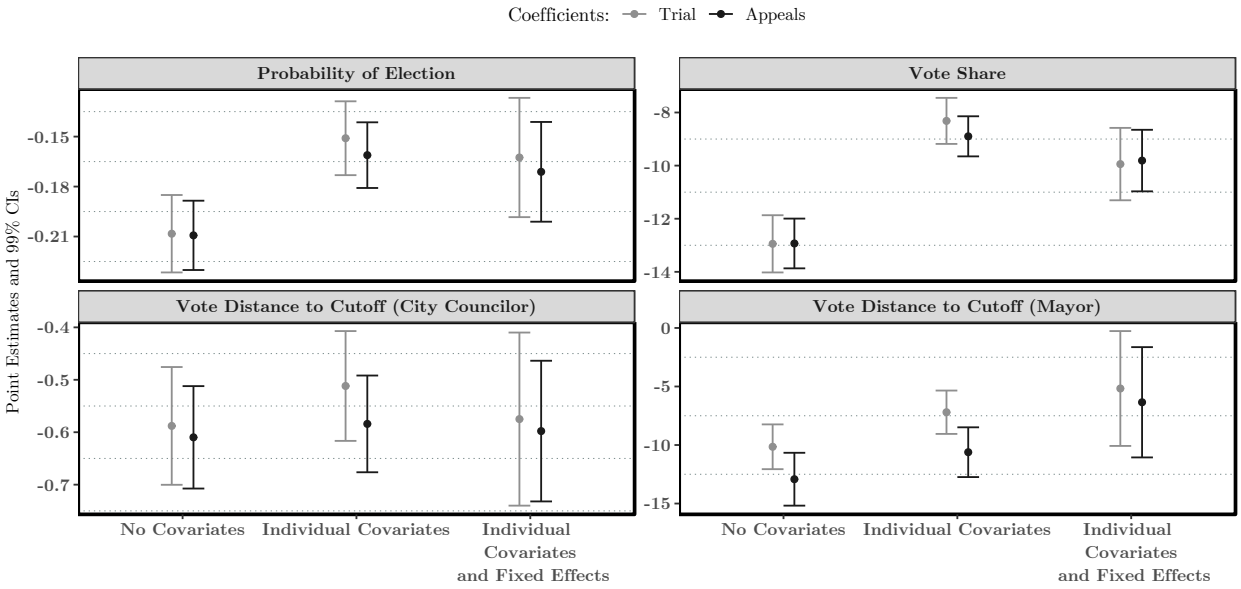

Table 11: Campaign Expenditure Across Ruling Group

	Mean Campaign Spending in Ruling Group (in R$)			
Stage	Favorable	Unfavorable	*t*-stat	*p*-value
Trial	84,766	34,497	9.45	.000
	[3,402]	[6,068]		
Appeals	73,275	34,658	8.62	.000
	[4,389]	[5,081]		
Unfavorable Ruling	Affirmed	Reversed	*t*-stat	*p*-value
Trial	34,346	34,527	−0.05	.961
	[5,059]	[1,009]		

Note: This table reports t-tests across different subsamples of candidates. The number of observations in each group is reported inside the squared brackets.

Table 12: Voter Sophistication and Benefit of Rule-Breaking

		β_1: Substantial Violation	
		$\beta_1 = 0$	$\beta_1 > 0$
β_2: Convicted at Trial × Substantial Violation	$\beta_2 = 0$	**1.** Violation carries no electoral benefit. **2.** Voters impose same penalty for different electoral violations.	**1.** Violation helps candidate get elected. **2.** Voters impose same penalty for different electoral violations.
	$\beta_2 < 0$	**1.** Violation carries no electoral benefit. **2.** Voters impose harsher electoral penalties for substantial violations.	**1.** Violation helps candidate get elected. **2.** Voters impose harsher electoral penalties for substantial violations.

Table 13: Heterogeneous Effect of Electoral Ruling

	Full Sample		City Councilor	Mayor
	Outcome: Probability of Election	Outcome: Vote Share (in p.p.)	Outcome: Vote Distance to Cutoff (in p.p.)	Outcome: Vote Distance to Cutoff (in p.p.)
	(1)	(2)	(3)	(4)
Convicted at Trial	$-.176^{***}$	-7.369^{***}	$-.713^{***}$	-6.653^{***}
	(.020)	(.719)	(.084)	(2.101)
Substantial Violation	$.047^{**}$	4.939^{***}	.089	.169
	(.024)	(.723)	(.103)	(1.524)
Convicted at Trial	−.014	-4.952^{***}	.015	1.644
× Substantial Violation	(.028)	(.915)	(.111)	(2.562)
Individual Controls	Yes	Yes	Yes	Yes
Fixed-Effects	Yes	Yes	Yes	Yes
Observations	4,717	4,717	3,465	1,252
Adjusted-R^2	.375	.697	.499	.380
F-stat	2.54^{***}	6.84^{***}	3.70^{***}	1.73^{***}

Note: The regressions here include the severity of the accusation brought against candidates running for municipal office. I recover the accusations from court documents and identify ruling type using linear support-vector machine classification (details in appendix REF). In columns 1-4, I report the coefficients on ruling outcome (row 1), type (row 2), and their interaction (row 3). All regressions include municipal, electoral, and party fixed-effects. Robust standard errors are displayed inside parentheses. *p<0.1; **p<0.05; ***p<0.01

Figure 3: Simulation of IV Point Estimates