

Ballot Order Effects and Party Responses: Evidence from Lotteries in Colombia

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Abstract

Ballot positions often affect the electoral performance of parties. Existing theories for this effect focus on voter-specific behavioral explanations. We present evidence on an additional unexplored mechanism: parties adjust their behavior to account for their position on the ballot. This adjustment matters for how we interpret existing results. First, we use a constituency level lottery of ballot positions across two elections and 1971 races in Colombia. We find evidence for a ballot position effect of 6.7 percent on vote share, and 8.8 percent on seat share. Second, we show that parties raise and spend more money on their campaigns if they are allocated a top spot on the ballot. Finally, we show that campaign spending is correlated with higher vote shares. Our results suggest that the existing literature may be overstating the contribution of the voter behavioral channel on ballot order effects.

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1 Introduction

Aberrant behavior at the polling booth has had the attention of political scientists for a long time. One such behavior is the tendency of voters to vote disproportionately more for parties listed at the top of the ballot, regardless of the identity of the party (Krosnick, Miller and Tichy, 2004; Ho and Imai, 2008; Blom-Hansen et al., 2016). Existing, mostly behavioral, explanations for the reasons for this effect focus on voters on election day. This paper argues that ballot order effects maybe augmented, or countervailed, if parties adjust their campaigns in response to where they are placed on the ballot. A part of the documented effect in the decades old literature may therefore emerge through a party channel rather than the voter channel. In theory, this channel may also be the reason why several scholars find null effects of ballot order randomization.

We study the case of Colombia where party positions in each ballot for local Mayors and Councilors for every municipality in the country are assigned through lotteries. We combine three data sources: election data for two elections in Colombia – Mayors and Councils; scans of 2196 races machine and hand coded for party positions on the ballots; and new campaign revenue and spending data at the transaction level for each party on every ballot for all of Colombia.

First, we establish the existence of the ballot order effect in Colombia. We show that being on the top row on the ballot causes an increase in party vote-share by 0.8 percent points, a treatment effect of 6.6 percent. Since ballot positions are randomized at the race level, we also observe an effect of 8.78 percent on a party’s seat share. Second, we present evidence on how parties adjust campaigns in response to the ballot order. Parties in the top row raise 11.68 percent more money and spend an equivalent amount on campaigning. Additional tests show that the increased spending is mostly on publicity and electioneering. Finally,

we show that there exists a correlation between higher expenditure and vote share in our sample.

This paper makes several contributions. First, we introduce and test for a new mechanism for a large body of literature on ballot order effects that spans several decades, and more broadly on election day factors' effect on voting (Brians and Grofman, 2001; Addonizio, Green and Glaser, 2007; Ansolabehere, 2009). The ballot order effects we observe can arise through a party strategic response channel in addition, or instead of, a behavioral channel (Lau and Redlawsk, 2001; Augenblick and Nicholson, 2015). This is in line with recent work that argues that voters may be more strategic (and less behavioral) in their actions than is commonly assumed (Ashworth, De Mesquita and Friedenber, 2018). Second, we add evidence on ballot order effects from elections at two levels of government from a developing country to a literature that is dominated by research on the US, with a few examples from other developed democracies (Blom-Hansen et al., 2016). Instead of being larger as predicted by a theory that argues that less educated voters may rely more on heuristics, the point estimates we observe are similar in magnitude to other studies from the US.

2 A Party-Based Mechanism

The order in which candidates and parties appear on the ballot can affect their electoral performance.¹ A large body of work either explicitly tests for (Bagley, 1965; Ho and Imai, 2008; Koppell and Steen, 2004; Meredith and Salant, 2013; Kim, Krosnick and Casasanto, 2015; Taebel, 1975; Geys and Heyndels, 2003; Blom-Hansen et al., 2016) or suggests that a

¹We reproduce Table 1 from Blom-Hansen et al. (2016) in Appendix Table A1. The table provides a review of work on ballot order effects from the US and abroad that address empirical issues in the earlier literature.

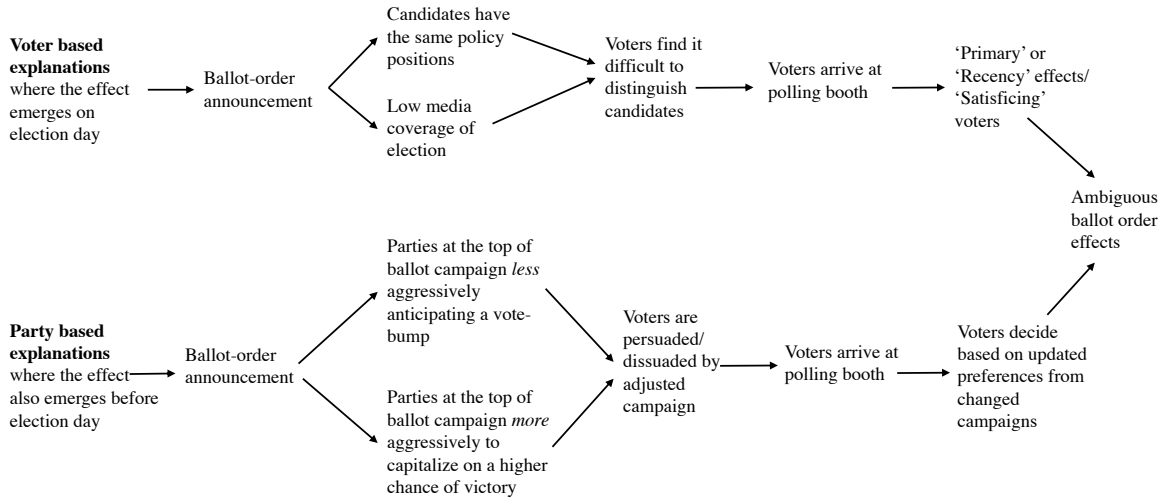
voter-based mechanism explains why ballot-order effect exists (Alvarez, Sinclair and Hasen, 2006; Chen et al., 2014; Darcy, 1986; Miller and Krosnick, 1998; Gold, 1952; Faas and Schoen, 2006; King and Leigh, 2009). As illustrated in Figure 2, voters are often decision-fatigued and operate in low information environments, and as a consequence, may resort to heuristics to make a decision. For example, under the ‘primacy’ hypothesis, voters are more likely to choose names listed on the top of the ballot because they begin searching the ballot with an aim to confirm a choice rather than reject it. ‘Recency’ effects exist when people chose the last listed name because they search the ballot in a low information environment looking for specific reasons to vote for a party but reached the end undecided (Krosnick, 1991). Most recent work finds evidence for ‘primacy’ effects, which is the focus of our empirical analysis below. Finally, another explanation models ‘satisficing’ voters, who accept the first solution presented to them for the voting problem (Simon, 1957).

We present an *additional* account that focuses on party and candidate behavior for why ballot order effects might exist. It is evident from previous work that candidates care a lot about the order in which they appear on the ballot.² The order in which names appear on the ballot is often announced a few weeks before the elections, which allows candidates the opportunity to do adjust their behavior. For example, the 2016 California Primary, an election type studied extensively in the literature, was held on June 7th. The ballot order alphabet randomization for this election was carried out on March 17, and a certified list of candidates was published on March 31st, while the actual election took place on June 7th, giving candidates over 2 months to respond to the ballot order.³

²See Krosnick, Miller and Tichy (2004) for a review of court cases around ballot order initiated by parties and candidates.

³See: “Key Dates for June 7 California Primary” at <http://www.sos.ca.gov/administration/news-releases-and-advisories/2016-news-releases-and->

Figure 1: Voter-based and party-based mechanisms for ballot-order effects



Theoretically, parties can adjust their strategy in either direction, and how we interpret the effects in the literature will differ by the direction of this adjustment. On the one hand, parties allocated the top spot on the ballot may reduce campaigning efforts to account for the possibility of getting a vote bump in the upcoming election. If this effect holds, then the existing literature stressing voter-based explanations for ballot order effects understates the effect of a top spot as parties might be taking mitigating action. Conversely, parties at the top of the ballot might increase their campaigning efforts if the expected vote bump brings them close to the possibility of winning. That is, additional campaigning to convert voters might now take them over the edge and help them win an additional seat. If campaigning is able to convert some voters, the ballot order effects in the existing literature are partly explained by party behavior.

Which of the two effects is larger is an empirical question that we explore below. Our objective is to demonstrate the existence of a ballot order effect on party behavior. Importantly, since party mechanism may operate in *either* direction, this mechanism may be the missing

[advisories/key-dates-june-7-california-primary/](#), accessed Jan 20, 2018

explanation for why some studies in the literature find no effect of the ballot order (see Appendix Table A1).

3 Background

3.1 Local Elections in Colombia

Colombia is currently divided into 1098 municipalities located within 32 departments, where local elections are held every 4 years. In each local election, politicians are elected for: local administrative juntas, councils, mayors, department assemblies, and departmental governors. Local administrative juntas are representative at the sub-municipality level, and are only present in a handful of municipalities, while councils and mayors are elected for every municipality⁴. The council's main role is to approve the annual budget on projects proposed by the municipal mayors and play an overall supervisory role for these projects. Mayors are the main executive figure in the municipality, designing the budget and implementing public policy. Compared to the historic bipartisanship currently Colombia has many parties running for local councils. For the 2015 election on average 8 parties participate in council.

3.2 Random assignment of position in ballots

Currently there is a simple plurality rule for electing Mayors, and each party is allowed to present a single candidate. Voters are allowed to cast one vote per party/candidate. An example of the ballot is present in 2. In the case of councils a proportional representation

⁴Here we focus on Mayor and Council elections since they are present in all municipalities in Colombia

is used, where parties can choose between open list (voters chose party and candidate) or closed list (voters choose party only). An example of the council ballot can be found in 3. Compared to the Mayor ballot, Council ballots do not have the name of the candidate nor their picture in the ballot. Rather, the the party logo and the candidate number is shown. Moreover the ballot is presented in a list format, with one party per row, while the Mayor ballot is presented in square format allowing several parties per row. The list ballot shape could make more salient which party is on top of the ballot.

Figure 2: Example Ballot 1- 2003 Mayor Elections



Table 1 presents a schedule of the electoral calendar. Parties announce their intention to run and provide a list of candidates to the local registry. Once the list is finalized, a lottery on the party position in the ballot takes place. Importantly, a party’s decision to run is unaffected by the position in the ballot since the randomization takes place after the decision to run. This randomization is done for every election and level (Mayors and Councils separately) and is independently verified.⁵ Parties are allowed to be present at the randomization.

⁵According to the Decree 1010 of 2010 – the Division of Electoral Management, at the

Figure 3: Example Ballot 2 - 2015 Council Elections

REGISTRADURÍA NACIONAL DEL ESTADO CIVIL - ELECCIONES DEL 25 DE OCTUBRE DE 2015

VOTO PARA CONCEJO DE ABEJORRAL (ANTIOQUIA)

VOTO PREFERENTE:
Busque la agrupación política u opción de su preferencia y marque siguiendo alguna de estas opciones, todas son válidas:

Únicamente el número de su candidato - El logo símbolo y el número de su candidato - Solo el logo símbolo

VOTO NO PREFERENTE:
Busque la agrupación política u opción de su preferencia y marque el logo símbolo o en la sección que lo delimita.

CC010040001

A	PARTIDO CONSERVADOR COLOMBIANO  PREFERENTE	1	2	3	4	5
		6	7	8	9	10
		11	12	13		

B	PARTIDO DE LA U  PREFERENTE	1	2	3	4	5
		6	7	8	9	10
		11	12	13		

C	PARTIDO OPCIÓN CIUDADANA  PREFERENTE	1	2	3	4	5
		6	7	8	9	10
		11	12			

D	PARTIDO LIBERAL COLOMBIANO  PARTIDO LIBERAL COLOMBIANO PREFERENTE	1	2	3	4	5
		6	7	8	9	10
		11	12	13		

E	PARTIDO CENTRO DEMOCRÁTICO  PARTIDO CENTRO DEMOCRÁTICO Mano firme Corazón grande NO PREFERENTE					
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F	PARTIDO CAMBIO RADICAL  CAMBIO RADICAL PREFERENTE	1	2	3	4	5
		6	7	8	9	10
		11	12	13		

G	PARTIDO POLO DEMOCRÁTICO ALTERNATIVO  POLO PREFERENTE	1	2	3	4	5
		6	7	8	9	10

H	VOTO EN BLANCO					
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Table 1: Deadlines for list type decisions

<i>Deadline</i>	<i>List type decision</i>
25th of July 2015	Inscription of Candidates in the Local Registry
28th of July 2015	Parties can initiate political propaganda
31st of July 2105	Last day to announce changes in the party lists only if a candidate quits
2nd of August 2015	Publication on the web-page of final list of candidates
4th of August	Lottery of party places in the ballot
25th of October 2015	Election date
1st of January 2016	Elected officials take office

4 Empirics and Data

4.1 Data

We use the electoral data compiled by Pachón and Sánchez (2014). We combine these with election results obtained directly from the *Registraduría Nacional del Estado Civil*. We calculate the vote share for parties, the seat share, and the number of seats obtained. In order to code the position in the ballot we obtained scans of all ballots for Mayors and Councils in 2015 (N=2196). Using hand coding and an optical character recognition package in Python, we coded if the party was on top of the ballot. However not all ballots have more than one row, therefore we drop them from the analysis since there is no variation on who is in top. This happens only for Mayor ballots which are squared.

We also obtain data on campaign income and spending from the National Electoral Commission⁶. For each candidate, these data reports the total income of the campaign, broken

National Electoral Council – a non partisan entity would be in charge of ensuring the randomization of party position within each ballot.

⁶Cuentas Claras En Eleccionnes. Accessed January 20, 2018. <http://www.>

down by source of income, if the income of the campaign came from the candidate’s own sources, donations, or the party. Similarly, the data report total expenditure, broken down by the expenditure items. A detailed breakdown is given in Appendix Tables [A2](#) and [A3](#).

4.2 Estimation

We assemble a party-ballot level dataset and run regressions of the following form:

$$Y_{pc} = \beta Top Row_{pc} + \alpha_c + \gamma_p + \varepsilon_{pc} \tag{1}$$

where outcomes, Y_{pc} , are measured for each party p in each constituency c . $Top Row_{pc}$ is an indicator variable for whether the party enters the ballot in the top row. We include ballot fixed effects (α_c) in the regression to account for common shocks at the race level. Since the lottery assigns unique numbers to the party, we also include party fixed effects (γ_p) so that we only compare within party variation. To account for spillovers in voter and party decisions, we cluster standard errors at the ballot level.

4.3 Balance

To test the validity of random assignment of ballot position, we construct data on party characteristics. For instance, one concern is that bigger parties are able to manipulate the system to be systematically be on top of the ballot. We code party size (measured as the number of municipalities the party contests in), if the party has participated in more than one election, as well as their previous vote share where they ran in the previous election for the same constituency. We also code if parties are right leaning ([Fergusson et al., 2017](#)) or

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minorities, as well as if they are one of the two main traditional parties. Appendix Table A4 shows that we have good balance on these variables using our main specification above.

5 Results

Table 2: **The Effect of Party in Top Row of the Ballot**

	Councils			Mayors	
	Vote Share (1)	Seat Share (2)	# Seats (3)	Vote Share (4)	Winner (5)
Effect of Row = 1	0.008*** (0.003)	0.011*** (0.004)	0.127*** (0.038)	0.005 (0.006)	0.011 (0.016)
Mean if Row > 1	0.122	0.121	1.338	0.195	0.189
Effect Size (%)	6.60	8.78	9.52	2.51	5.88
# Ballots	1098	1098	1098	873	873
# Observations	8684	8684	8684	3771	3771
Ballot FE	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression.

We begin by analyzing if a top position on the ballot translates into better electoral performance for parties. Table 2 shows strong positive results for councils. We observe that being in the top row increases a party’s vote share by 0.8 percent points, which translates to a treatment effect of about 6.6 percent. The randomization occurs at the race level, the treatment also affects actual electoral outcomes: the top row of council ballots increases the seat share of parties by 1.1 percent points, and there is an 8.78 percent increase in the probability of an additional seat for the party. This is verified by the increase in the number of seats won by the party in column 3. Finally, we do not observe any effect of being allocated the top row in the electoral performance of mayors, which might be due to the higher salience of

election or differences in the shape of the ballot as mentioned above. Moreover the ballot has additional information such as a picture of the candidate and the name. Most importantly, since we observe no effects on mayors, we can use these elections as a placebo case to study the campaign effects we explore below.

Table 3: **Campaign Revenue and Expenditure, Pesos per registered voter**

	Councils		Mayors	
	Revenue (1)	Expenditure (2)	Revenue (3)	Expenditure (4)
Effect of Row = 1	79.401** (39.749)	76.148* (39.461)	73.590 (105.676)	67.709 (103.988)
Mean if Row > 1	680.078	668.139	2665.489	2635.389
Effect Size (%)	11.68	11.40	2.76	2.57
# Ballots	1092	1092	867	867
# Observations	7767	7767	3452	3452
Ballot FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression.

Next, we analyze campaign income and spending data to test if getting the top position affects the way parties behave before the election day. We present the overall results below in Table 3. Consistent with a party/candidate mechanism, we find that parties who are allocated the top row in council election have raise campaign incomes and by about 11.5 percent. In Appendix Tables A6 to A9, we break the results into official reporting categories. We find that the increase in income comes primarily from candidates' own income and not additional donations or loans. This suggests that the change in behavior from an anticipated voter bump which emerges specifically from the candidates on the ballot. In addition, we find that the top row party candidates also spend statistically significantly more money on Administrative expenses and Transport and Mailing expenses. A story consistent with these effects is that the candidates are sending out more campaign material via post, an activity

that would be recorded under these two budget heads. In addition, the point estimate on general electioneering expenses is also positive and large, albeit not statistically significantly different from zero. If we add this point estimate to the treatment effects on administration and mailing costs, the total comes out to 70.74 additional pesos per registered voter which gets very close to the treatment effect in Column 2 in Table 3, which would suggest the additional spendings is done to obtain more votes. Finally, as expected, we observe no consistent effects on Mayors' campaign income or expenditure.

To further probe the robustness of the previous result, we code if the *transaction-level* notes on campaign spending contain words that signal that the expense is related to publicity. This new outcome variable takes on the value of the transaction, normalized by registered voters, if the transaction description contained words like 'posters' and 'flyers'.⁷ We again find that the point estimate on this variable is in the vicinity of the effect in Table 3 and it only comes out significant for Councils.

Finally, we also find that every 1,000 pesos spent per registered voter is correlated with 0.028 in vote share and 0.036 in seat share.⁸ While this final result is purely correlational, it does signal that, controlling for party and ballot characteristics, more campaigning yields higher vote shares in our sample.⁹

⁷See Table A10 for key words used and Table A11 for the results.

⁸See Appendix Table A12 for these correlations.

⁹We do not partition the data by the top spot on the ballot as campaign spending is post-treatment.

6 Conclusion

Consistent with existing results, results indicate that party location in the ballot affects their electoral results – voters vote for the parties located on top independent of constituency and party characteristics. We present evidence that parties also react to ballot positions by raising and spending more money, particularly on publicity. Finally, there exists a correlation between higher spending and vote share. Our results show that previously estimated ballot order effects may be overstating the contribution of a behavioral channel. Further research should examine the conditions under which parties will reduce or increase their campaigning.

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FOR ONLINE PUBLICATION: APPENDIX

Table A1: Experimental studies of ballot position effects from [Blom-Hansen et al. \(2016\)](#)

Experimental studies referred to	Identified ballot position effect
<i>Natural experiments from the USA (random rotation of order of candidates)</i>	
Alvarez, Sinclair and Hasen (2006)	Positive effect of being listed first
Chen et al. (2014)	Positive effect of being listed first
Darcy (1986)	No position effect
Ho and Imai (2008)	Positive effect of being listed first
Koppell and Steen (2004)	Positive effect of being listed first
Krosnick, Miller and Tichy (2004)	Positive effect of being listed first
Meredith and Salant (2013)	Positive effect of being listed first
Miller and Krosnick (1998)	Positive effect of being listed first
<i>Other experimental studies from the USA</i>	
Bagley (1965) : Lab experiment	No position effect
Gold (1952) : Field experiment	No position effect
Kim, Krosnick and Casasanto (2015) : Survey experiment	Positive effect of being listed first
Taebel (1975) : Lab experiment	Positive effect of being listed first
<i>Natural experiments from outside the USA</i>	
Faas and Schoen (2006) : Bavarian state elections in Germany	Positive effect of being listed first
Geys and Heyndels (2003) : Regional elections in Brussels in Belgium	Positive effect of being listed first
King and Leigh (2009) : Australian federal elections	Positive effect of being listed first
Blom-Hansen et al. (2016) : Danish local and regional elections	Positive effect of being listed first

Notes: Besides the entry of the paper itself, this table is taken from [Blom-Hansen et al. \(2016\)](#).

Table A2: *Descriptive Statistics for Council Elections*

Variable	N	Mean	Sd	Min	Max
<i>Panle A. Election Results</i>					
Vote Share	7767	0.131	0.090	0.000	0.646
Seats Share	7767	0.132	0.115	0.000	0.778
Number of Seats	7767	1.452	1.239	0.000	10.000
Registered Voters (Thousands)	7767	43.107	234.904	0.759	5188.174
Row = 1 on Ballot	7767	0.126	0.331	0.000	1.000
<i>Panle B. Party Characteristics</i>					
Num. Munis Contesting	7767	808.900	221.411	117.000	1027.000
2011 Vote Share(**)	4328	0.181	0.116	0.000	1.000
2011 Seat Share(**)	4338	0.177	0.130	0.000	0.778
Right Party	7767	0.063	0.244	0.000	1.000
Traditional Party	7767	0.095	0.293	0.000	1.000
Party participated in the last election	7767	0.557	0.497	0.000	1.000
Campaign Data Missing	7767	0.000	0.000	0.000	0.000
<i>Panle C. Campaign Financing Revenues(*)</i>					
Total	7767	703.828	1015.777	0.000	21953.410
CandInc	7767	650.576	987.589	0.000	21953.410
PvtContr	7767	34.259	157.224	0.000	4565.790
Credits	7767	1.361	42.161	0.000	3048.012
Events	7767	0.779	15.704	0.000	634.016
State	7767	0.082	3.800	0.000	217.752
Party	7767	16.771	125.137	0.000	3768.794
<i>Expenditures(*)</i>					
Total	7767	691.340	1002.178	0.000	21953.410
Total Advertising	7767	434.483	774.543	0.000	21953.410
Admin	7767	76.876	224.327	0.000	5874.105
Office	7767	22.887	100.508	0.000	3144.519
Material	7767	53.548	186.525	0.000	6126.482
PubActs	7767	164.283	443.237	0.000	15999.612
TransMail	7767	123.487	321.906	0.000	9252.906
Research	7767	2.178	31.606	0.000	1912.261
Judicial	7767	32.812	116.147	0.000	3705.980
Election	7767	161.763	363.971	0.000	13157.075
Fin	7767	0.349	5.580	0.000	376.611
Exceed	7767	0.066	2.152	0.000	119.119
Other	7767	53.092	186.871	0.000	6399.881

Note *Total Colombian Pesos /Registered voters. ** Only available for parties which participated in the previous election

Table A3: *Descriptive Statistics for Mayors Elections*

Variable	N	Mean	Sd	Min	Max
<i>Panel A. Election Results</i>					
Vote Share	3452	0.227	0.184	0.000	0.813
Seats Share	3452	0.227	0.419	0.000	1.000
Number of Seats	3452	0.227	0.419	0.000	1.000
Registered Voters (Thousands)	3452	33.247	155.412	0.957	5188.174
Row = 1 on Ballot	3452	0.586	0.493	0.000	1.000
<i>Panel B. Party Characteristics</i>					
Num. Munis Contesting	3452	401.474	131.731	2.000	549.000
2011 Vote Share(**)	741	0.274	0.164	0.000	1.000
2011 Seat Share(**)	742	0.290	0.454	0.000	1.000
Right Party	3452	0.081	0.272	0.000	1.000
Traditional Party	3452	0.071	0.257	0.000	1.000
Party participated in the last election	3452	0.215	0.411	0.000	1.000
Campaign Data Missing	3452	0.000	0.000	0.000	0.000
<i>Panel C. Campaign Financing</i>					
<i>Revenues(*)</i>					
Total	3452	2907.861	3595.614	0.000	38047.973
CandInc	3452	2390.536	3275.308	0.000	38047.973
PvtContr	3452	424.834	1240.877	0.000	22065.811
Credits	3452	41.023	488.766	0.000	12709.172
Events	3452	24.513	221.889	0.000	6131.387
State	3452	0.236	9.833	0.000	503.854
Party	3452	26.718	280.512	0.000	10425.354
<i>Expenditures(*)</i>					
Total	3452	2872.935	3562.663	0.000	38044.582
Total Advertising	3452	1143.253	2047.488	0.000	31269.170
Admin	3452	292.019	617.317	0.000	7670.851
Office	3452	83.360	264.180	0.000	5158.661
Material	3452	171.750	548.862	0.000	9571.578
PubActs	3452	779.881	1578.065	0.000	23193.916
TransMail	3452	652.123	1220.716	0.000	14247.581
Research	3452	20.126	219.775	0.000	7310.023
Judicial	3452	27.637	96.479	0.000	1476.620
Election	3452	598.202	930.473	0.000	9900.744
Fin	3452	0.000	0.000	0.000	0.000
Exceed	3452	0.005	0.183	0.000	7.969
Other	3452	245.991	1141.873	0.000	27126.154

Note *Total Colombian Pesos /Registered voters. ** Only available for parties which participated in the previous election in the same constituency.

Table A4: **Balance Table**

	# Munis Contesting (1)	2011 Vote Share (2)	2011 Seat Share (3)	Old Party (4)	Right Party (5)	Minority Party (6)	Traditional Party (7)	Campaign Data Missing (8)
Panel A: Councils								
Effect of Row = 1	-0.000 (0.000)	-0.001 (0.005)	0.002 (0.006)	-0.004 (0.009)	0.006 (0.006)	0.000 (0.000)	-0.000 (0.000)	-0.001 (0.009)
Mean if Row > 1	794.044	0.176	0.171	0.537	0.055	0.103	0.221	0.104
Effect Size (%)	-0.00	-0.84	1.08	-0.78	11.71	0.00	-0.00	-0.49
# Ballots	1098	1022	1022	1098	1098	1098	1098	1098
# Observations	8684	4648	4648	8684	8684	8684	8684	8684
Panel B: Mayors								
Effect of Row = 1	0.000 (0.000)	0.020 (0.018)	-0.045 (0.055)	0.005 (0.010)	0.006 (0.007)	-0.000 (0.000)	-0.000 (0.000)	0.006 (0.009)
Mean if Row > 1	386.121	0.245	0.265	0.204	0.065	0.088	0.250	0.085
Effect Size (%)	0.00	8.14	-16.87	2.51	9.90	-0.00	-0.00	6.53
# Ballots	873	263	263	873	873	873	873	873
# Observations	3771	571	571	3771	3771	3771	3771	3771
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression.

Table A5: Donations Codebook

Revenues	
CandInc	Credits or contributions from the income of the candidates, or direct relatives
PvtContr	Contributions, grants and loans, in cash or kind, by private donors
Credits	Credits obtained in financial institutions to finance the campaign
Events	Income originating from public events, or publications by the party or movement
State	State Funding
Party	Political parties financing the candidate campaigns
Expenditure	
Admin	Administrative expenses
Office	Office expenses and acquisitions
Materials	Investment in materials and publications
PubActs	Public acts by the candidates
TransMail	Transport and mail service costs
Research	Political research and training of party members
Judicial	Judicial accountability and expenses related to campaign accounts
Election	Electioneering expenses
Fin	Financial costs
Exceed	Expenses that exceed the amount set by the National Electoral Council
Other	Other expenses

Table A6: Campaign Revenue for Councils in 2015

	CandInc	PvtContr	Credits	Events	State	Party
	(1)	(2)	(3)	(4)	(5)	(6)
Effect of Row = 1	74.230*	4.935	-0.928	-0.215	-0.076	1.455
	(39.328)	(5.959)	(0.834)	(0.421)	(0.048)	(4.269)
Mean if Row > 1	627.308	33.580	1.466	0.831	0.094	16.799
Effect Size (%)	11.83	14.70	-63.34	-25.84	-81.33	8.66
# Ballots	1092	1092	1092	1092	1092	1092
# Observations	7767	7767	7767	7767	7767	7767
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression. See Table A5 for a description of the variables. The outcomes are measured in persos per registered voters.

Table A7: Campaign Expenditure for Councils in 2015

	Admin (1)	Office (2)	Material (3)	PubActs (4)	TransMail (5)	Research (6)	Judicial (7)	Election (8)	Fin (9)	Exceed (10)	Other (11)
Effect of Row = 1	19.355** (9.329)	-1.608 (3.548)	-8.952 (6.037)	15.349 (15.349)	30.627** (12.849)	-0.913 (0.709)	-5.673 (3.468)	20.753 (16.993)	0.054 (0.092)	-0.000 (0.086)	7.155 (5.977)
Mean if Row > 1	73.400	22.708	53.909	156.762	117.306	2.280	32.560	157.648	0.345	0.063	51.160
Effect Size (%)	26.37	-7.08	-16.61	9.79	26.11	-40.05	-17.42	13.16	15.70	-0.18	13.99
# Ballots	1092	1092	1092	1092	1092	1092	1092	1092	1092	1092	1092
# Observations	7767	7767	7767	7767	7767	7767	7767	7767	7767	7767	7767
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression. See Table A5 for a description of the variables. The outcomes are measured in persos per registered voters.

Table A8: Campaign Revenue for Mayors in 2015

	CandInc (1)	PvtContr (2)	Credits (3)	Events (4)	State (5)	Party (6)
Effect of Row = 1	33.975 (96.590)	32.507 (43.635)	9.944 (13.711)	1.589 (7.512)	-0.236 (0.371)	-4.190 (8.879)
Mean if Row > 1	2198.267	388.984	30.120	21.580	0.373	26.165
Effect Size (%)	1.55	8.36	33.01	7.36	-63.14	-16.01
# Ballots	867	867	867	867	867	867
# Observations	3452	3452	3452	3452	3452	3452
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression. See Table A5 for a description of the variables. The outcomes are measured in persos per registered voters.

Table A9: Campaign Expenditure for Mayors in 2015

	Admin (1)	Office (2)	Material (3)	PubActs (4)	TransMail (5)	Research (6)	Judicial (7)	Election (8)	Fin (9)	Exceed (10)	Other (11)
Effect of Row = 1	-3.859 (20.859)	-14.359 (9.842)	8.391 (19.082)	-14.570 (51.857)	2.793 (37.616)	2.228 (7.812)	5.594* (3.309)	-1.107 (31.675)	0.000 (.)	-0.009 (0.006)	80.375* (42.813)
Mean if Row > 1	290.027	86.523	154.462	722.893	589.940	17.944	22.767	570.504	0.000	0.012	179.437
Effect Size (%)	-1.33	-16.60	5.43	-2.02	0.47	12.42	24.57	-0.19	.	-76.01	44.79
# Ballots	867	867	867	867	867	867	867	867	867	867	867
# Observations	3452	3452	3452	3452	3452	3452	3452	3452	3452	3452	3452
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression. See Table A5 for a description of the variables. The outcomes are measured in persos per registered voters.

Table A10: Key words for coding Publicity spending

Words	Words in spanish
Public event	Evento público
Advertising	Publicidad
Speech	Locución
Banner	Pendon
Commercial	Cuña/Propaganda
Poster	Carteles/Afiches
Flyer	Volantes
Advertising schedule	Pauta publicitaria
Advertising buttons	Botones publicitarios
Publicist	Publicista
Marketing	Marketing
Prints	Estampados
Billboard	Valla publicitaria/Pasacalles
Sound	Sonido
Television	Televisión
Radio	Radio
Press	Prensa
Logistics	Logística
Mural	Mural
Stand	Stand
Vests	Chalecos
T-shirts	Camisetas
Hats	Gorras/Cachuchas

Table A11: **Total Spent on Publicity, pesos per registered voter**

	Councils (1)	Mayors (2)
Effect of Row = 1	56.516* (33.214)	-27.770 (70.303)
Mean if Row > 1	419.526	1074.067
Effect Size (%)	13.47	-2.59
# Ballots	1092	867
# Observations	7767	3452
Ballot FE	Yes	Yes
Party FE	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression. See Table A10 for key words. When a key word is found in the transaction description, that transaction's value is added to the new variable.

Table A12: **Correlation of Campaigning and Electoral Performance**

	Councils				Mayors			
	Total Revenue Vote Share (1)	Seat Share (2)	Total Revenue Vote Share (3)	Expenditure Seat Share (4)	Total Revenue Vote Share (5)	Seat Share (6)	Total Revenue Vote Share (7)	Expenditure Seat Share (8)
Effect of 1k peso/regist voter	0.028*** (0.003)	0.036*** (0.004)	0.028*** (0.003)	0.036*** (0.004)	0.029*** (0.002)	0.059*** (0.004)	0.030*** (0.002)	0.061*** (0.004)
# Ballots	1092	1092	1092	1092	867	867	867	867
# Observations	7767	7767	7767	7767	3452	3452	3452	3452
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors, clustered at the ballot level, are in parentheses. Each observation denotes a party within a ballot. All races with more than one row on the ballot are included in the regression.