

How Campaigns Respond to Ballot Position: A New Mechanism for Order Effects ^{*}

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Abstract

An established finding on ballot design is that prominent positions on the ballot improves the electoral performance of parties or candidates because voters respond behaviorally to salient information. This paper presents evidence on an additional unexplored mechanism: campaigns, who act before voters, adjust their behavior when allocated a salient position on the ballot. We use a constituency-level lottery of ballot positions in Colombia and first establish that a ballot-order effect exists: campaigns randomly placed at the top earn more votes and seat shares. Second, we show that campaigns react to being placed on top of the ballot: they raise and spend more money on their campaign and spending is correlated with higher vote shares. In addition to presenting evidence for how campaigns react strategically to election administration, our results provide the first evidence for a new mechanism for the ballot-order effects examined in many previous studies.

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Voting is at the heart of democracy, but what explains voter choice? Among many explanations, past work on election administration shows that voters have a tendency to vote disproportionately for whoever is listed at the top of the ballot, regardless of the identity of the party or candidate. The primary postulated reason in the long literature examining ballot order effects argues that this occurs because voters respond behaviorally to salient parts of the ballot (Krosnick, Miller and Tichy, 2004; Ho and Imai, 2008; Blom-Hansen et al., 2016). This paper argues and presents evidence for an additional mechanism that may augment or countervail behavioral reasons for ballot order effects: before the election takes place, campaigns may adjust strategically once the ballot order is revealed, impacting directly voters' decisions on election day.

We test campaign responses to ballot order effects in Colombia, which is an ideal context for this purpose; party positions on ballots for local councils are assigned through lotteries held in each constituency and there is systematic data on campaign spending. We combine election data, scans of 1099 ballots, and new revenue and expenditure data for each campaign to present three results. First, we confirm that a ballot order effect exists in Colombia – campaigns assigned the top row get more voter and seat share. Second, we show that campaigns assigned the top row of the ballot raise 12.28 percent more money and spend an equivalent amount on campaigning, mostly on publicity and electioneering. This channel has not previously been explored in the literature. Finally, we show that there exists a correlation between higher expenditure and vote share in our sample, opening the possibility that changes in vote shares are, in part, due to increased expenditure.

This paper makes several contributions. First, we introduce and test for a new mechanism for the literature on ballot order effects (Brians and Grofman, 2001; Addonizio, Green and Glaser, 2007; Ansolabehere, 2009). Our evidence – that ballot order effects can arise through a campaign strategic response channel in addition, or instead of, a voter channel – potentially explains some null effects in the literature (Lau and Redlawsk, 2001; Augenblick and Nicholson, 2015). More broadly, these results are in line with recent work that argues that voters may be more strategic (and less behavioral) than is commonly assumed (Ashworth, De Mesquita and Friedenber, 2018), since they could be reacting to increased campaign spending. Second, we add evidence on ballot order effects for elections from a developing country to a literature that is dominated by research on the US and other developed democracies (Blom-Hansen et al., 2016). Instead of effects being larger,

as predicted by previous work for contexts where voters may rely more on heuristics, the effects we observe are similar in magnitude to other studies from the US. More generally, our results are relevant for the literature on campaigns and how they strategically adjust their behavior in light of new information on election day factors (Carsey et al., 2011; Hartman, Pattie and Johnston, 2017) or how ballot design can affect the number of invalid votes cast (Pachon, Carroll and Barragán, 2017). Our study shows how ballot design effects are important to understand as both voters *and* campaigns can react to them.

A Campaign-Based Mechanism

The order in which candidates and parties appear on the ballot can affect their electoral performance (see Appendix Table A1 for a summary of the findings). 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 voter-based mechanism explains why ballot-order effects exist (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). The proffered logic is that voters are decision-fatigued and operate in low information environments. As a consequence, many resort to heuristics when deciding whom to vote into office. For example, under the ‘primacy’ hypothesis in the literature, 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. In contrast, ‘recency’ effects exist when people choose the last listed name because they search the ballot in a low information environment looking for specific reasons to vote for a party but reach the end undecided (Krosnick, 1991). Most recent work finds evidence for ‘primacy’ effects, which is the focus of our empirical analysis below.

We present an *additional* account that focuses on campaign behavior for why ballot order effects exist. Campaign reactions are plausible, given that previous work show that candidates care a lot about the order in which they appear on the ballot. See, for example Krosnick, Miller and Tichy (2004), for a review of court cases initiated by campaigns challenging ballot orders.

The order in which names appear on the ballot is often announced a few weeks before the elections, allowing campaigns the opportunity to adjust their behavior. For instance, for the 2016 California

Primary, an election type studied extensively in the literature, the ballot order alphabet randomization was carried out on March 17, a certified list of candidates was published on March 31st, and the actual election took place on June 7th. This gave candidates over 2 months to respond to the ballot order.¹ One way in which campaigns can adjust behavior in response to the announced ballot order is by raising and spending campaign money differently. We code several past studies that document ballot order effects in real world settings and find that, in 10 out of 12 cases, campaigns had the ability to adjust their strategy after the announcement of the ballot order given the lags between the ballot order announcement and election day (See Table A1).

If campaigns can plausibly adjust their strategy in either direction, how we interpret the effects in the literature will differ by the direction of this adjustment. On the one hand, campaigns allocated a prominent spot on the ballot may reduce campaigning efforts to account for the possibility of getting a vote bump in the upcoming election due to increased salience to voters. If this effect holds, then the existing literature that stresses election-day voter-based explanations for ballot order effect understate the effect of a prominent spot on the ballot as campaigns are taking mitigating action.

Conversely, campaigns with a prominent position on the ballot may increase their campaigning efforts if the expected vote bump from a prominent allocation on the ballot 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. In this case, the campaign response is working in the same direction as the ballot order effects identified in existing work. Therefore, the observed effects in the current literature might be at least partially explained by the additional mechanism of campaign behavior.

Background—Local Elections in Colombia

Colombia is currently divided into 1099 municipalities where local elections are held every 4 years. In each local election, politicians are elected to fill positions on a council that serves as the local legislative body. The council's main role is to approve the annual budget on projects proposed by the municipal mayors and play a supervisory role for these projects. While Colombia was historically bipartisan, it currently has many parties running for local councils. For the 2015 election, on aver-

¹<http://www.sos.ca.gov/administration/news-releases-and-advisories/2016-news-releases-and-advisories/key-dates-june-7-california-primary/>, accessed Jan 20, 2018

age 8 parties participated in council elections.²

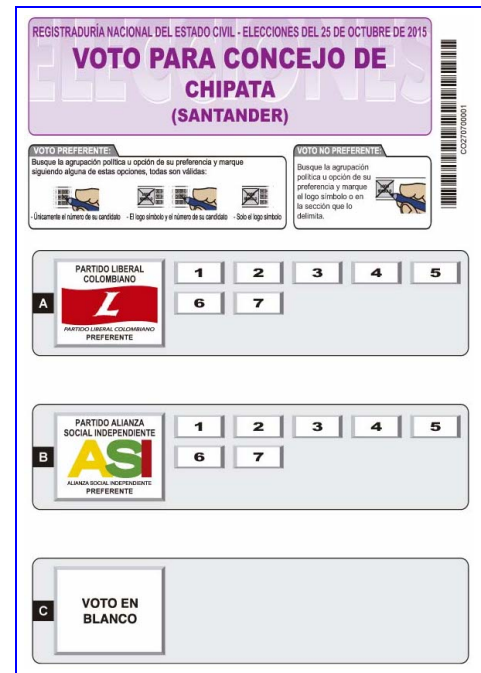
Council ballots have a conventional ballot design with a single column layout, with party logos and without candidate pictures. A proportional representation system is used to elect councils where parties can choose between an open list (voters chose party and candidate) or closed list (voters choose the party only, and votes are distributed according to a predetermined candidate lists) before the ballot lottery. An example of the council ballot can be found in Figure 1 – both parties opting for open lists in this instance, and party A receiving the top position in the lottery.

Random assignment of position in ballots: During the electoral cycle, parties announce their intention to run and submit a list of candidates to their local registry. Election administrators then conduct a random lottery to assign each party to a position in the ballot. Importantly, a party’s decision to run is unaffected by the position in the ballot since the randomization takes place after registration. Between the ballot lottery and Election Day, campaigns have about 3 months to react to their ballot position (see Table A2). On Election Day voters only select a party (closed-list) or a party and then a candidate in the list (open-list). Seats are allocated to parties on the basis of their aggregated vote share. Parties that opt for open-list ballots assign these seats to the individual candidates who receive the most votes. Campaigns using a closed-list ballot assign seats based on their initial ranking of candidates. The ballot randomization is conducted by a non-partisan entity, is independently verified, and campaign representatives can be present at the lottery.

Empirics and Data

Data: We combine the electoral data compiled by Pachón and Sánchez (2014) with election results obtained from the *Registraduría Nacional del Estado Civil*. In order to code the position in the ballot

Figure 1: Example Ballot - 2015 Council Elections



²Our paper is based on the 2015 electoral period where campaigning data is available for local councils.

we obtained scans of all council elections ballots in 2015 (N=1,099). Using hand coding and an optical character recognition package in Python, we coded if a party is placed on top of the ballot. We obtained data on campaign income and spending from the National Electoral Commission.³ For each candidate, these data report the total income of the campaign, broken down by source of income from the candidate’s own sources, donations, or the party. Similarly, the data report total expenditure, broken down by expenditure items. We calculate the total income and spending for parties – by adding all spending/income of the candidates in the party – and divide by number of registered voters in the constituency. A detailed breakdown is given in Table A3.

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

$$Y_{pc} = \beta Top Row_{pc} + \alpha_c + \gamma_p + \varepsilon_{pc} \quad (1)$$

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/municipality level.

Balance: We test the validity of random assignment of ballot position. 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, previous vote share, as well as whether the party is right leaning (Fergusson et al., 2020) or a main traditional party. Overall the results in Appendix Table A4 show good balance, allaying concerns that the lottery was systematically manipulated.

Results

Table 1 columns 1-3 confirms existing results in the literature by showing that the top position on the ballot translates into better electoral performance. The top row increases a party’s vote share by 0.9 percent points, a treatment effect of about 7.3 percent. Since the randomization occurs at the race level, the treatment also affects actual electoral outcomes: the top row of council ballots

³Cuentas Claras En Elecciones. Accessed January 20, 2018. <http://www.cnecontasclaras.com/>

Table 1: The Effect of Party in Top Row of the Ballot

	Electoral Outcomes			Campaign Finance		
	Vote	Seat	# Seats	Revenue	Total	Publicity
	Share	Seat			Expenditure	Expenditure
	(1)	(2)	(3)	(4)	(5)	(6)
Effect of Row = 1	0.009*** (0.003)	0.012*** (0.004)	0.145*** (0.04)	84.966** (39.477)	81.966** (39.183)	37.195* (22.532)
Mean if Row > 1	0.126	0.127	1.415	679.397	667.314	261.874
Effect Size (%)	7.245	9.761	10.277	12.506	12.283	14.204
# Ballots	1099	1099	1099	1099	1099	1099
# Observations	7886	7886	7886	7886	7886	7886
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 is a party within a ballot. Races with more than one row on the ballot are included.

increases the seat share of parties by 1.2 percent points, and there is a 14.5 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. While we focus on comparing the top row versus other rows, in the Appendix (Fig. A2 and A3) we check if other rows also carry a ballot order effect. To do this, we compare each succeeding row with subsequent rows. Results consistently show that, in our context, ballot order effects are only present for the first row. We consequently focus the remaining analyses to the comparison of the first row with remaining rows.

Next, we analyze campaign income and spending data to test if getting the top position affects the way campaigns behave before election day. Looking first at campaign income, the results in Table 1 column 4 show that campaigns who are allocated the top row raise about 12.5 percent more income. In Appendix Table A7, we break the income results into official reporting categories (details of categories are available in Table A5). We find that the increase in income comes primarily from the candidate's own pocket and not additional donations, loans, or party coffers. Looking at expenses next (column 5), we find that parties who are allocated the top row spend about 12.3 percent more on campaigning. A disaggregated analysis in Table A8, shows that the top row campaigns also spend statistically significantly more money on Administrative, Transport, and Mailing expenses. These results are consistent with campaigns sending more mailers via post in response to being allocated the top position on the ballot.

We further establish evidence in support of our interpretation of more campaign activity by coding *transaction-level* data from campaign expenditures. We code if transaction details include words such as ‘posters’ and ‘flyers’ that signal campaigning (see Table A6 for all key words used). Next, we create a new variable that equals the value of these transactions, normalized by the number of registered voters in the constituency. Table 1 column 6 shows that being allocated the top position on the ballot increases the amount spent these ‘publicity’ expenditures by 14.2 percent.

Finally, we also show that campaign spending is correlated with vote shares in our context: Appendix Table A9 shows that every 1,000 pesos spent per registered voter is correlated with 3.1 percentage points higher vote share and 4.1 percentage points higher seat share.⁴ Speculatively, using the previous results in Table 1 column 5, the additional spending of 81.97 pesos per voter by campaigns suggests that campaigns at the top of the ballot potentially increased their vote share by 0.25 percentage points and 0.33 percentage points more seat share. This could be a sizable effect via spending given that the total effect for being placed on top is 0.9 percent points and 1.2 percent points, for vote shares and seats shares respectively.

Unpacking campaign responses

In this section, we conduct exploratory analysis to unpack the results of campaign responses to ballot order changes by looking at within-party candidate behavior. This will help us inquire if campaigns responses are strategic. We had hypothesized that if campaigns were confident of winning, they could reduce campaign expenditure to adjust for the anticipated salience effect of being placed on top of the ballot. If campaigns were not completely confident of winning but believed they were close, being placed on top would encourage them to spend more on campaigning as now they would expect that ballot order effects brought improved salience which could bring them closer to winning.

We test this using two features of our case. First, in PR elections, parties present a list with candidates placed in different positions strategically: candidates at the top of the *list* tend to be party leaders who are well-recognized and carry a higher chance of winning, while candidates placed in the middle or bottom have less recognition and have a relatively lower chance of winning. For

⁴We omit the top party to avoid compounding the potential voter driven ballot order effect. For robustness, we also include the top party and the results are similar (see Table A10).

instance, [Mustillo and Polga-Hecimovich \(2020\)](#) suggests that highly placed candidates within lists actually do confer electoral advantages.

Second, parties in Colombia can run under either open or closed lists, but must decide on this, as well as the initial position of each candidate, before the ballot order lottery. In open lists voters vote for the party and candidates, while in closed lists voters only pick parties (votes are distributed according to the list presented by the party). Open lists incentivizes candidates within parties to exert more campaigning effort since candidates can obtain votes directly. Comparatively, candidates lower placed in closed lists have fewer incentives to campaign since their additional spending would yield benefits for candidates at the top of the list.

Given this set-up, and our expectations discussed above, candidates in open lists are more likely to change campaigning when their party is randomly assigned the top position on the ballot. Furthermore, we expect that candidates placed at the top of the open list – those more sure of a victory – are less likely to spend more when the party is placed at the top of the ballot, while candidates in the middle and bottom of the list would spend more, given that the top party placement on the ballot improves their chances of victory.

We find that *only* in open lists do candidates seem to spend more when their party is placed on the top row of the ballot (see [Figure A4](#)). Estimating these comparisons with municipality and party fixed effects, and grouping by candidate positions within the list – where *top* is the first position, *middle* is positions 2 to 4, and *low* is 5 or lower – we find that in open lists top candidates do not increase spending, while candidates in the middle and bottom positions do (see [Figure A7](#)). In the case of closed lists, however, there is no positive adjustment of spending across the three groups of candidates. This preliminary result suggests that middle- and bottom-ranked candidates in open lists are most likely to increase spending to reap the benefits of being placed on top of the ballot. In other words, campaign spending seems to be a strategic reaction that varies by candidate position on the list as well as the type of list, rather than a purely being a ‘primacy’ effect.

Conclusion

We present evidence that campaigns react to ballot positions by raising and spending more money on campaigning before elections. Our key contribution is to show that these results illustrate a

novel mechanism to a long established effect of ballot orders in the literature. Existing explanations of ballot order effects may be overstating the contribution of a behavioral channel as the only mechanism for the observed ballot order effect. There is a possibility that campaigns also strategically adjust their behavior once they are allocated a prominent position on the ballot. Further study of campaign reactions is therefore a fruitful area of research that should be included in the vast literature of ballot order effects and election administration more broadly.

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FOR ONLINE PUBLICATION: APPENDIX

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A Review of ballot order effect studies

Table A1 briefly reviews studies that have considered ballot position effects using natural experiments. We provide a summary of the substantive findings as well as information about the cases under consideration in each study:

Table A1: Natural experimental studies of ballot position effects from [Blom-Hansen et al. \(2016\)](#) with information added on campaign spending

Natural experimental studies	Identified ballot position effect	Campaign spending allowed?	Election
<i>Natural experiments from the USA (random rotation of order of candidates)</i>			
Alvarez, Sinclair and Hasen (2006)	Positive effect of being listed first	Allowed	California, 1998 All statewide races
Chen et al. (2014)	Positive effect of being listed first	Allowed	North Dakota, 2000-2006 All statewide elections
Darcy (1986)	No position effect	Allowed	Colorado, 1984 All statewide races
Ho and Imai (2008)	Positive effect of being listed first	Allowed	California, 1978-2002 All statewide races
Koppell and Steen (2004)	Positive effect of being listed first	Allowed	New York City, 1998 All statewide Democratic primaries
Krosnick, Miller and Tichy (2004)	Positive effect of being listed first	Allowed	Ohio (All statewide races), North Dakota(All statewide races) and California(President and Senate), 2000
Meredith and Salant (2013)	Positive effect of being listed first	-	City council & California, 1995-2008 City council and school board elections
Miller and Krosnick (1998)	Positive effect of being listed first	Allowed	Ohio, 1992 All statewide and countywide races
<i>Natural experiments from outside the USA</i>			
Faas and Schoen (2006):	Positive effect of being listed first	Regulated spending: Broadcast through TV/Radio granted during a period before the election	Bavarian state elections in Germany
Geys and Heyndels (2003):	Positive effect of being listed first	Strictly regulated spending	Regional elections in Brussels
King and Leigh (2009):	Positive effect of being listed first	Allowed	Australian federal elections
Blom-Hansen et al. (2016):	Positive effect of being listed first	Allowed	Danish local/regional elections

B Information on the 2015 Colombian Council Ballots Design

B.1 Open and closed list ballots

Figure A1 demonstrates the use of both open and closed lists on the same ballot. Parties can choose, prior to the submission of candidates to the electoral authority, whether to use an open- or closed-list for a given electoral race. Therefore the same party can choose different list-types in different municipalities, and different parties can choose different list-types within the same municipality. This decision is made prior to the randomisation ballot position. In Table A2 we present a timeline of the major procedural milestones in the 2015 electoral cycle. In Figure A1 party in position C and F, chose closed list, the others chose open list.

Figure A1: Example Ballot - 2015 Council Elections

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

VOTO PARA CONCEJO DE PACORA (CALDAS)

INSTRUCCIONES PARA EL VOTANTE
Busque la agrupación política a la que desea votar y marque el número de la lista preferida. Marque el número de la lista preferida y marque el tipo de lista y con la marca que lo indica.

INSTRUCCIONES PARA EL VOTANTE
Busque la agrupación política a la que desea votar y marque el número de la lista preferida y marque el tipo de lista y con la marca que lo indica.

A MOVIMIENTO MIRA
1 3
MIRA
PREFERENTE

B PARTIDO LIBERAL COLOMBIANO
1 2 3 4 5
6 7 8 9 10
11
PARTIDO LIBERAL COLOMBIANO
PREFERENTE

C PARTIDO OPCIÓN CIUDADANA
OPCIÓN CIUDADANA
NO PREFERENTE

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

E PARTIDO CONSERVADOR COLOMBIANO
1 2 3 4 5
6 7 8 9
PARTIDO CONSERVADOR COLOMBIANO
PREFERENTE

F PARTIDO CENTRO DEMOCRÁTICO
CENTRO DEMOCRÁTICO
NO PREFERENTE

G VOTO EN BLANCO

B.2 Election timeline

Table A2: 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

B.3 Summary Statistics

Table A3: Descriptive Statistics for Council Elections

Variable	N	Mean	Sd	Min	Max
<i>Panel A. Election Result</i>					
Vote Share	7886	0.13	0.09	0	0.646
Seat Share	7886	0.131	0.115	0	0.778
Party Seats	7886	1.448	1.234	0	10
Registered Voters (Thousands)	7886	45.482	248.637	0.759	5188.174
Row = 1 on Ballot	7886	0.125	0.331	0	1
<i>Panel B. Party Characteristics</i>					
Num. of Municipalities Contested	7886	802.682	236.433	1	1029
2011 Vote Share(**)	4622	0.168	0.105	0.001	0.71
2011 Seat Share(**)	4622	0.177	0.129	0	0.778
Right Party(***)	4907	0.041	0.199	0	1
Traditional Party	7886	0.223	0.417	0	1
Minority Party	7886	0.094	0.293	0	1
Party Participated in the Last Election	7886	0.586	0.493	0	1
Campaign Data Missing	7886	0	0	0	0
<i>Panel C. Campaign Financing</i>					
Revenues(*)					
Total	7886	702.978	1011.789	0	21953.41
Candidate Income	7886	649.682	983.753	0	21953.41
Private Donations	7886	34.296	156.706	0	4565.79
Financial Credits	7886	1.344	41.844	0	3048.012
Events	7886	0.806	15.724	0	634.016
State	7886	0.081	3.771	0	217.752
Party Contributions	7886	16.769	124.965	0	3768.794
Expenditures(*)					
Total	7886	690.385	997.991	0	21953.41
Advertising	7886	270.723	504.924	0	16868.436
Administrative	7886	76.976	223.395	0	5874.105
Office	7886	22.834	99.92	0	3144.519
Material	7886	53.591	185.705	0	6126.482
Public Acts	7886	164.16	440.916	0	15999.613
Transport and Mail Service	7886	123.22	320.525	0	9252.906
Research	7886	2.15	31.369	0	1912.261
Judicial Cost	7886	32.571	115.373	0	3705.98
Electioneering	7886	161.406	361.793	0	13157.075
Financial Fees	7886	0.346	5.539	0	376.611
Exceed	7886	0.065	2.136	0	119.119
Other	7886	53.066	187.62	0	6399.881

Notes: *Total Colombian Pesos /Registered voters. ** Only available for parties which participated in the previous election. *** Not all parties were coded for ideology

C Robustness tests for results presented in the main paper

In this section we provide further statistical tests that assess the robustness of the findings reported in the main text. Table A4 reports the results of conventional balance tests; Figures A2 and A3 repeat the analysis treating other rows on the ballot as the “treatment” row.

C.1 Balance in covariates

Table A4 displays balance tests for a host of contextual features of the parties in our dataset, including the party’s choice of open or closed list. The randomisation is effective – there are no significant differences between the types of party that are placed in the first row of the ballot compared to other rows. Not all parties report campaign data, in column (8) we show that campaign data reporting is independent of being placed on top row.

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)	Open List (9)
Effect of Row = 1	0.000 (0.000)	0.004 (0.004)	0.006 (0.006)	-0.009 (0.009)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.009)	0.004 (0.006)
# Observations	7886	4622	4622	7886	4907	7886	7886	8833	7886
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	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.

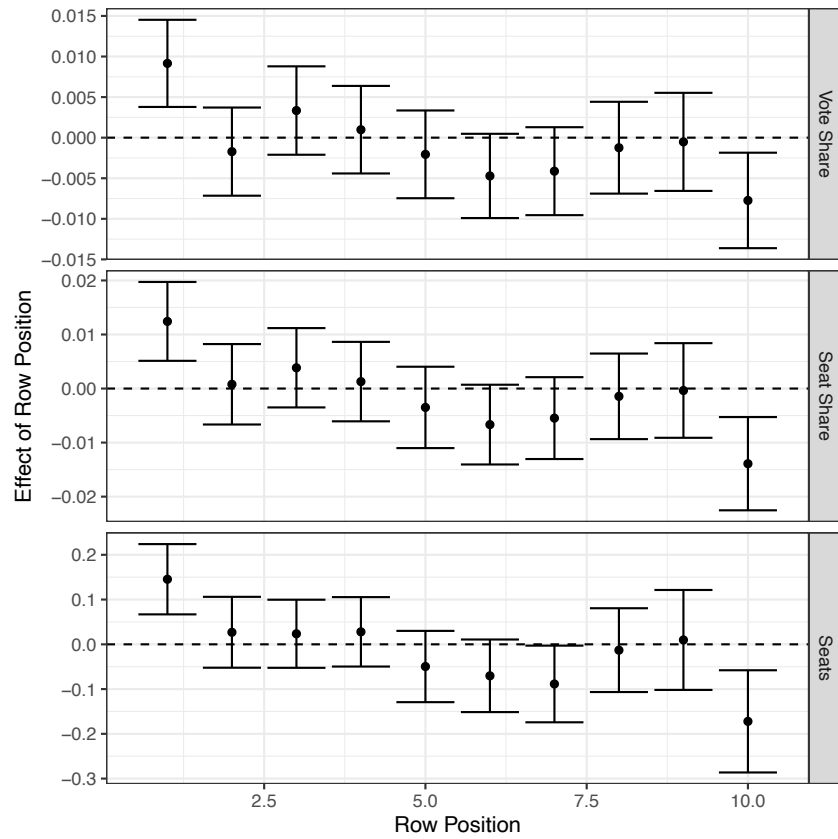
C.2 Alternative treatment rows

Figure A2 presents the estimated row effect comparing a given row to all other rows in the dataset for the three outcomes reported in the main text.⁵ There is no positive and significant row effect for any other than the first row.

We also compute the estimated effect comparing each row to all rows below. Figure A3 shows the estimated effects for each row omitting all observations in rows above the ‘treatment’ row.

⁵We restrict our analysis to the top ten rows since there are many fewer ballots with more than ten rows, and so the variance is much larger.

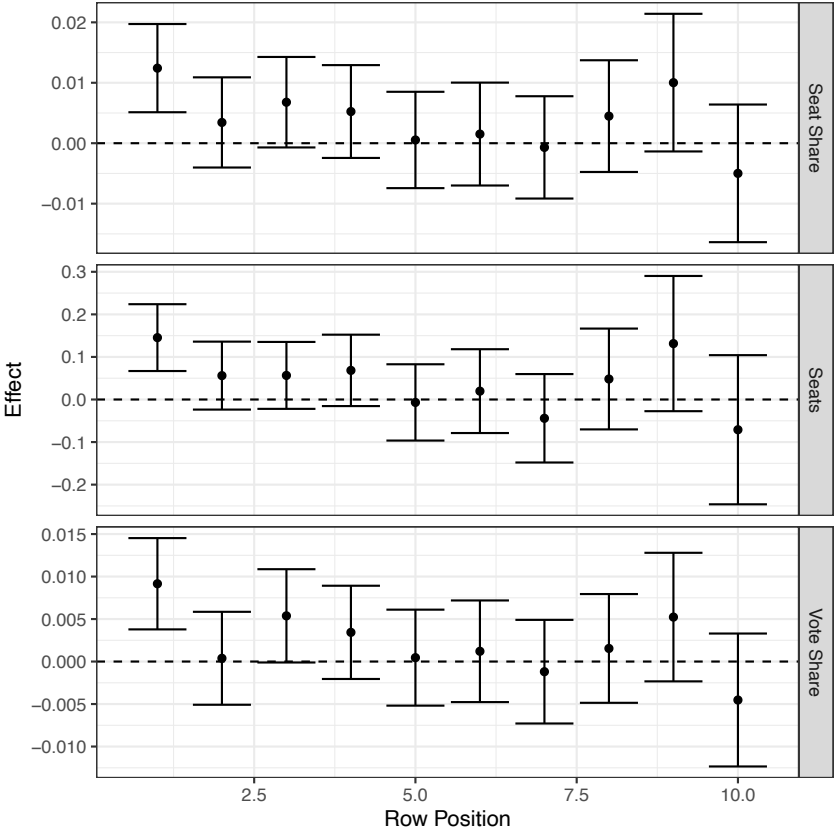
Figure A2: Effect of row position compared to all other rows (including those above)



Effect estimates shown with 95% confidence intervals. Positions beyond the 15th row are not reported due to very large confidence intervals.

In general the results show positive, albeit mostly insignificant, results for most row positions. Substantively, no effect is as large as the row effect when the Row = 1.

Figure A3: Effect of row position compared to all rows *below*



Effect estimates shown with 95% confidence intervals. Positions beyond the 10th row are not reported due to small sample sizes.

D Party-level campaign finance correlations

D.1 Codebook for revenues and expenditures

In this section we present further analysis of party-level revenue and expenditure activity for campaigns. We report the official decomposition of revenue and expenditure categories, as well as our own key word search that helps identify publicity spending. We then consider the substantive size of the effects reported in the main text. Finally, we present further regression estimates of the correlation between randomized ballot position and campaign finance broken down into official categories.

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: **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

D.2 Decomposed results on revenues and expenditures

Table A7: Decomposition of Row Effect on Official Revenue Categories

	CandInc (1)	PvtContr (2)	Credits (3)	Events (4)	State (5)	Party (6)
Effect of Row = 1	79.309** (39.069)	5.375 (5.970)	-0.935 (0.838)	-0.221 (0.422)	-0.077 (0.048)	1.515 (4.265)
Mean if Row > 1	626.712	33.535	1.447	0.862	0.092	16.748
Effect Size (%)	12.655	16.028	-64.626	-25.659	-83.25	9.046
# Ballots	1099	1099	1099	1099	1099	1099
# Observations	7886	7886	7886	7886	7886	7886
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 A8: Decomposition of Row Effect on Official Expenditure Categories

	Admin (1)	Office (2)	Material (3)	PubActs (4)	Trans/Mail (5)	Research (6)	Judicial (7)	Election (8)	Fin (9)	Exceed (10)	Other (11)
Effect of Row = 1	20.175** (9.324)	-1.153 (3.522)	-9.021 (6.039)	16.390 (15.327)	31.570** (12.798)	-0.910 (0.709)	-5.632 (3.468)	21.906 (16.952)	0.053 (0.092)	0.035 (0.080)	8.552 (5.742)
Mean if Row > 1	73.574	22.651	53.953	156.692	117.104	2.247	32.321	157.299	0.341	0.062	51.07
Effect Size (%)	27.422	-5.09	-16.72	10.46	26.959	-40.505	-17.426	13.927	15.643	56.987	16.745
# Ballots	1099	1099	1099	1099	1099	1099	1099	1099	1099	1099	1099
# Observations	7886	7886	7886	7886	7886	7886	7886	7886	7886	7886	7886
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.

D.3 Correlation between Campaigning and Electoral Performance

Table A9: Correlation of Campaigning and Electoral Performance (omitting parties in top row)

	Total Revenue		Total Expenditure	
	Vote Share (1)	Seat Share (2)	Vote Share (3)	Seat Share (4)
Effect of 1k Peso/Registered Voter	0.031*** (0.004)	0.041*** (0.005)	0.031*** (0.004)	0.041*** (0.005)
# Ballots	1098	1098	1098	1098
# Observations	6900	6900	6900	6900
Ballot FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes

Notes: $*p < 0.1$, $**p < 0.05$, $***p < 0.01$. Parties in the top row omitted. 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.

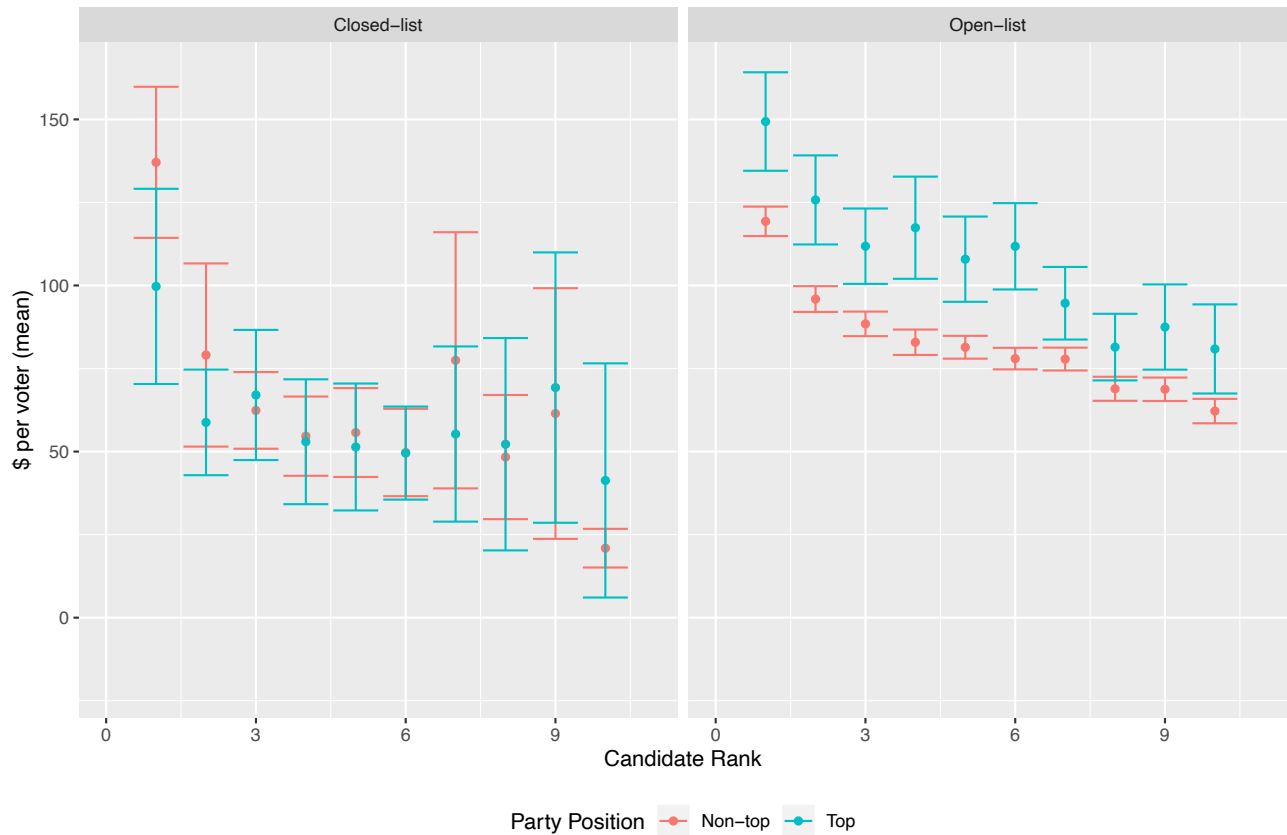
Table A10: Correlation Between Campaign Finance and Electoral Performance

	Total Revenue		Total Expenditure	
	Vote Share (1)	Seat Share (2)	Vote Share (3)	Seat Share (4)
Effect of 1k Peso/Registered Voter	0.028*** (0.003)	0.036*** (0.004)	0.028*** (0.003)	0.036*** (0.004)
# Ballots	1099	1099	1099	1099
# Observations	7886	7886	7886	7886
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.

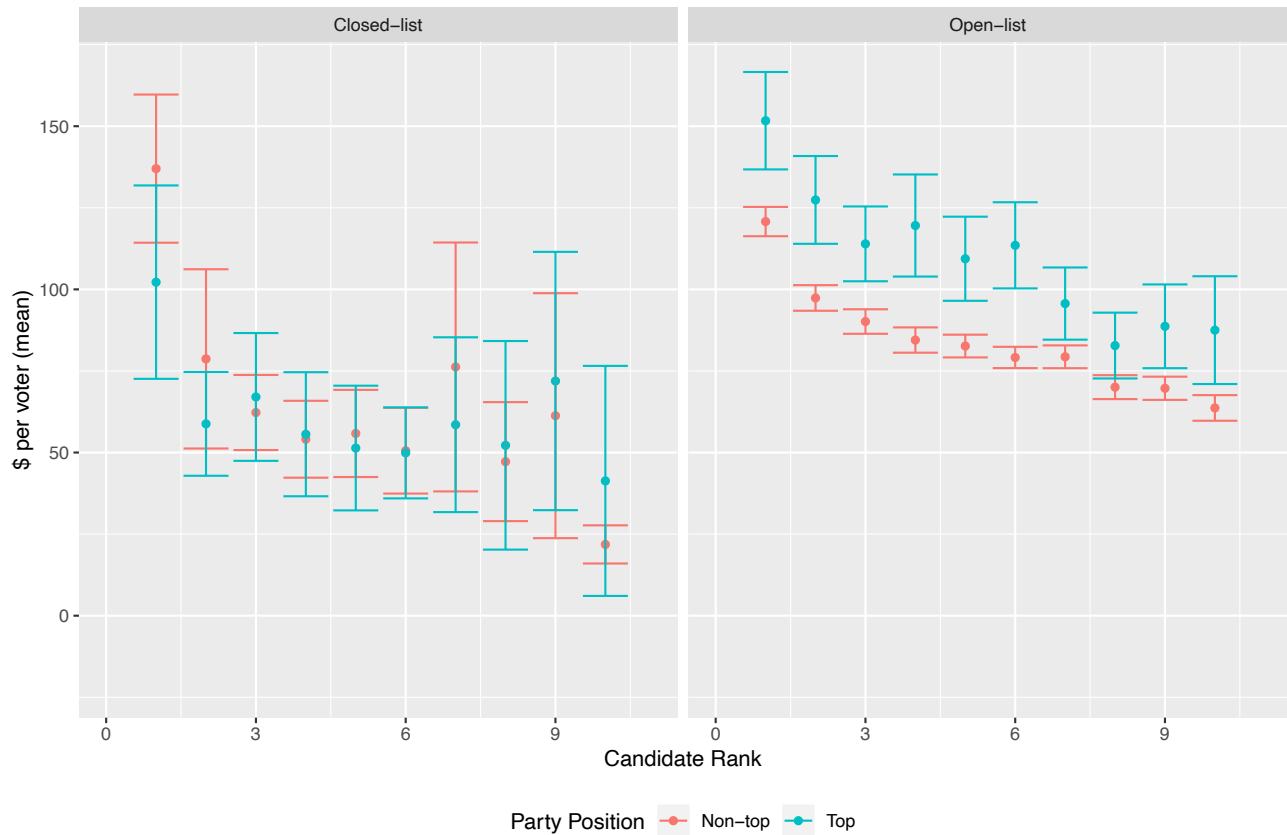
E Candidate-level campaign finance correlations

Figure A4: Differences in Mean *Expenditure* at the Individual-Level, by List Type and Candidate's Rank in the List



Means shown with 95% confidence intervals. Candidate rank is a candidate's initial position in the party list when the party registered, which is predetermined. Candidate list ranks beyond the 10th candidate are not reported due to very limited sample and large confidence intervals.

Figure A5: Differences in Mean *Revenue* at the Individual-Level, by List Type and Candidate's Rank in the List



Means shown with 95% confidence intervals. Candidate rank is a candidate's initial position in the party list when the party registered, which is predetermined. Candidate list ranks beyond the 10th candidate are not reported due to very limited sample and large confidence intervals.