

## Candidate ballot information and election outcomes: the Czech case

Štěpán Jurajda\* and Daniel Münich

*Center for Economic Research and Graduate Education, Charles University, and the  
Economics Institute of the Academy of Sciences of the Czech Republic (CERGE-EI),  
Prague, Czech Republic*

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This study measures the importance of candidate characteristics listed on ballots for a candidate's position on a slate, for preferential votes received by a candidate, and, ultimately, for getting elected. We focus on the effects of gender, various types of academic titles, and also several novel properties of candidates' names. Using data on over 200,000 candidates competing in recent Czech municipal board and regional legislature elections, and conditioning on slate fixed effects, we find that ballot cues play a stronger role in small municipalities than in large cities and regions, despite the general agreement on higher candidate salience in small municipalities. We also quantify the electoral advantage of a slate being randomly listed first on a ballot.

**Keywords:** low-information elections; ballot order effects; name properties

### Introduction

Information is central to electoral choices. When voters cast ballots, those ballots should primarily reflect information available to voters about the candidates' qualifications for office and policy views. Voters also may be influenced by election advertising. However, when voters have little information about, or interest in, a candidate or when they are presented with large numbers of candidates or simply when fatigued, they may rely on simple heuristics and cues and be influenced in their vote by the limited information that is provided on the ballot they hold in their hands in the voting booth, rather than on a comprehensive assessment of candidates' qualities and programs.

The literature on voting behavior now recognizes that in elections that are low in salience, i.e., in the degree of available information on candidate quality, ballot cues may affect election outcomes. Brockington (2003) summarizes the theory of low-information election behavior, which fits into the general research on low-information decision-making (e.g., Kahneman 1973). Three levels of information available to voters are considered: (1) *primary information* on candidates' qualifications or policy views collected by voters before arriving at the polling place; (2) *ballot information*, i.e., candidate demographic characteristics, which

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\*Corresponding author. Email: [stepan.jurajda@cerge-ei.cz](mailto:stepan.jurajda@cerge-ei.cz)

46 are available on the ballot and which are potentially correlated with their  
47 qualifications and viewpoints; and (3) *ballot cues*, which should not be informative  
48 about the candidate's quality, but which may make voting decisions easier for an  
49 uninformed voter, such as the sequence in which candidates are listed on the ballot  
50 when it is randomized.

51 There is now considerable empirical evidence, which we discuss in the next  
52 section, suggesting that candidate characteristics provided on ballots, as well as their  
53 order on the ballots, are relevant to election outcomes. Evidence that candidates  
54 receive an advantage from their position on a ballot comes from countries where the  
55 candidate order is random. However, most of this work is based on a single election  
56 in one country, which makes it difficult to compare the importance of ballot cues  
57 across election settings differing in salience, i.e., in the degree of available primary  
58 information. The importance of ballot information and ballot cues for voters'  
59 choices is likely to be higher when there is little primary information available on  
60 candidates (as in US city council elections; see, e.g., Matson and Fine 2006) or when  
61 voting is compulsory, which increases the share of uninterested, uninformed voters  
62 (as in Australia; see Kelley and McAllister 1984).

63 In this article, we extend the low-information election literature by exploring  
64 novel types of ballot cues. First, we consider the potential effects of candidates'  
65 names as ballot cues, including the importance of their names' linguistic properties,  
66 ethnic attributes, and popularity. Second, we appear to be the first to quantify the  
67 positional advantage of the random slate order within a ballot.<sup>1</sup> Third, we test for  
68 the presence of an alphabetical order effect in elections in which parties determine  
69 the slate order, i.e., when candidates are not formally ordered based on the alphabet.  
70 We also study the election behavior effects of ballot information, including  
71 candidates' gender, academic titles, and graduate degrees. We measure the  
72 importance of these factors listed on ballots for a candidate's position on a slate, for  
73 preferential votes received by a candidate, and, ultimately, for getting elected.

74 We do so using data on over 200,000 candidates participating in recent Czech  
75 municipal elections and over 8000 candidates running in recent Czech regional  
76 elections. The third section of the article describes these elections, which have  
77 been characterized as differing in salience and voter interest. Specifically, voters  
78 tend to be familiar with candidates for the roughly 6000 municipal boards in small  
79 towns and villages, while their knowledge of candidates in large cities or in the 13  
80 regional elections is more limited.

### 81 82 83 **Related literature and empirical strategy**

84 Our analysis of Czech elections is related to three strands of the voting behavior  
85 literature, which we now briefly introduce together with our empirical strategy.  
86 First, our exploration of gender effects contributes to the growing body of work  
87 motivated by the distinct underrepresentation of women among legislators.  
88 Similar to other studies, we ask about the slate position of women in elections in  
89 which the order is determined by parties, and about the electoral value of gender –  
90 i.e., about voter gender preferences when comparing two otherwise comparable

91 candidates of different gender. Along this line of enquiry, Esteve-Volart and  
92 Bagues (2012) studied party nomination strategies in Spain and found that women  
93 tend to be listed in poorer (lower) positions on the ballot, despite attracting more  
94 votes than comparably positioned men.

95 Second, we add to the small set of studies that ask about the ballot value of  
96 holding an academic title, conditional on how candidates are ordered. Faas and  
97 Schoen (2006) and Schneider and Tepe (2011) suggest there is positive election  
98 value to the PhD title in German federal elections, while Kelley and McAllister  
99 (1984) find no relationship between electoral success and holding a title of  
100 professor or doctor in British general (parliamentary) elections. We ask about the  
101 effect of holding a title of full professor or associate professor and of having a  
102 PhD, MA, or BA degree. We appear to be the first to study the effect of an MA or  
103 BA degree. This is motivated by the fact that in small-town municipal elections,  
104 only in exceptional cases are there candidates with Professor titles, and even an  
105 MA or BA degree may be a strong signal of candidate qualifications.

106 Third, we extend the literature on ballot cues in several ways, starting with an  
107 exploration of three different “order” effects. There is a growing body of work  
108 studying the importance for election behavior of candidate order on ballots, in  
109 particular of being listed first.<sup>2</sup> Meredith and Salant (2013) summarize the existing  
110 measurements of the electoral advantage of being listed first on ballots in countries  
111 such as the USA, Spain, or Australia, where candidate order is randomized. In their  
112 analysis of California city council and school board elections, candidates listed first  
113 typically win office about five percentage points more often, thanks to the order  
114 effect. Similar findings have been obtained for elections in which candidates are  
115 simply listed in alphabetical order (e.g., Kelley and McAllister 1984).<sup>3</sup>

116 In the Czech Republic, parties determine the order of candidates within slates,  
117 but the slate order on the ballot is allocated randomly. This allows us to extend the  
118 ballot-order literature by providing the first available estimates of the advantage to  
119 a slate being randomly selected as the first slate on a ballot (as opposed to the first  
120 candidate on a ballot).

121 Next, we ask about two other novel order effects. First, we inquire about the  
122 effect of a male candidate being positioned within a slate immediately above or  
123 below a female candidate. If, for example, voters have on average negative views  
124 of female candidates’ abilities, they may ascribe information value to a male  
125 candidate who is listed below (close to) a female candidate. Second, we ask  
126 whether voters may (subconsciously) prefer candidates whose surnames are sorted  
127 high/early in the alphabet (e.g., “A,” “B,” or “C” as opposed to “X,” “Y,” or “Z”).  
128 For example, *The Economist* (Economist 2001) points out the high fraction of US  
129 presidents and UK prime ministers with last names sorted high in the alphabet.  
130 Similarly, we test for potential effects of alphabetical sorting on candidate position  
131 on a slate. In Czech elections, candidate order is determined by parties. If parties  
132 start their slate-order discussions with an alphabetically sorted list of candidates,  
133 which they then re-sort “by hand” based on candidate quality, there may be  
134 “residual” traces of alphabetical sorting when only a few candidates are moved up  
135 the list based on quality.

136 We also explore the potential ballot cue effects of nonalphabetical properties of  
137 candidate names. There are a few studies of the effects of candidate ethnicity in  
138 low-information elections (e.g., Matson and Fine 2006).<sup>4</sup> We perform a similar  
139 analysis in the Czech context by focusing on Roma names, Roma being the largest  
140 minority in the country.<sup>5</sup>

141 Furthermore, we study novel aspects of names as cues, such as the general  
142 popularity of first names, as well as several linguistic properties suggested in  
143 consumer research studying the effects of brand names. Brand name research  
144 borders on linguistic psychology and onomastics (the part of linguistics that  
145 studies names); it highlights the value of semantic and connotative values of brand  
146 names in marketing campaigns. For example, in one of the most extensive studies  
147 conducted to date, Lowrey, Shrum, and Dubitsky (2003) investigated the effect on  
148 brand name memory of several linguistic characteristics hand-coded for 500 brand  
149 names and found that *initial plosives* (hard initial consonants such as *k* and *p*) are  
150 shown to affect brand memorability.

151 There is only one study we are aware of that explores the potential effects of  
152 linguistic name properties in elections: Smith (2007) follows the arguments of  
153 *phonetic symbolism*<sup>6</sup> and ranks surnames of candidates in US congressional  
154 elections according to their rhythmic and phonetic features to generate statistically  
155 significant predictors of US elections.<sup>7</sup> We are not aware of any low-information  
156 electoral studies that would ask about the value of having a popular first name or  
157 that would apply the suggestions made in recent consumer research on brand  
158 names to the study of electoral competitions.

159 Our analysis not only introduces several new factors potentially affecting  
160 election choices, but we also attempt to shed light on the interpretation of ballot  
161 cue and ballot information effects by providing one of the few available  
162 comparisons of these effects across otherwise comparable election settings (in one  
163 country) characterized by a different degree of salience and voter interest.  
164 Specifically, we employ data from the 2008 regional and 2010 municipal elections  
165 in the Czech Republic. There are about 6000 small municipalities in the country,  
166 where voters tend to be aware of the identity and quality of the village board  
167 candidates from their municipality. There are about 300 cities (with at least 5000  
168 inhabitants) where city board composition and candidate quality are likely to be  
169 less salient to voters. Finally, there are only 14 regions (with about one million  
170 inhabitants each), which were only established in 2000, where salience levels and  
171 voter interest are likely to be lowest.<sup>8</sup>

172 When ballot cues are more relevant for election outcomes in one election  
173 setting compared to another, it is likely that this corresponds to cues being used  
174 more often by uninformed, potentially uninterested voters as “short cuts” to  
175 making decisions in low-salience situations. Hence, an empirical comparison of  
176 ballot cue effects may complement the existing largely qualitative work on  
177 salience. In contrast, the comparison of ballot information effects across election  
178 settings does not have a clear-cut interpretation. Based on ballot data and election  
179 choices alone, it is not possible to fully disentangle what part of ballot  
180 information’s explanatory power for election outcomes is due to information (such

181 as the candidate having a PhD degree) being used as a simple heuristic by  
182 uninterested voters,<sup>9</sup> what part is due to the use of this information by voters to  
183 guess about a candidate's quality, and, finally, what part of the difference in  
184 predictive power across election settings corresponds to the potentially different  
185 correlation between voter-observed primary information about the quality of  
186 candidates and the candidates' ballot-listed characteristics.

187 Relatedly, the fact that candidate quality and voter party preferences remain  
188 unobservable to us ought to be reflected in our estimation strategy. For example, if  
189 certain candidate characteristics are valued by uninformed voters, parties who  
190 know they are not generating strong voter interest by their policy proposals may  
191 try to improve their election chances by intentionally using candidates with high-  
192 value ballot-observable characteristics and cues.<sup>10</sup> This strategic party behavior  
193 would generate a correlation between a slate's general attractiveness to voters and  
194 average candidate characteristics on a slate. Such correlations can also arise if  
195 candidate characteristics listed on the ballot are in fact positively correlated with  
196 the qualities that are unobservable to us. For example, one may expect candidates  
197 with higher education to have better managerial skills.

198 To address this issue, our empirical analysis controls for slate-fixed effects and  
199 focuses on within-slate comparisons, taking as given local party preferences, which  
200 are captured by slate-fixed effects.<sup>11</sup> For example, we do not analyze which slates  
201 are ultimately more successful, but ask whether ballot cues have predictive power  
202 for preferential votes cast by voters after controlling for the overall attractiveness of  
203 a given slate. Our estimation strategy thus recognizes that candidate quality and  
204 voter preferences may differ across slates in ways that are both unobservable to us  
205 and potentially correlated with ballot cues and ballot information.

206 We study the importance of all of the ballot-listed factors mentioned above for  
207 a candidate's position on a slate, for preferential votes received by a candidate,  
208 and, ultimately, for getting elected to a city or regional council. In this regard, our  
209 work is similar to the analysis (published in Czech) of the 2010 Czech municipal  
210 elections by Bernard (2012), who merged the 2010 election data with information  
211 on prior municipal board membership and focused on the importance of  
212 incumbency for election chances. He found incumbency to be the strongest  
213 predictor of electoral success.<sup>12</sup> Unlike our work, Bernard's analysis does not  
214 focus on within-slate comparisons and does not consider the potential effects of  
215 candidate name properties, ethnic or linguistic. It also does not differentiate among  
216 different types of academic titles and educational degrees or investigate slate  
217 position advantages. Finally, unlike Bernard (2012), our analysis compares the  
218 importance of information cues across two types of elections. We are not aware of  
219 any other work on ballot cues from the post-Soviet countries.

### 220 221 222 **Czech municipal and regional elections**

223 In the Czech Republic, there are three levels of government: central, regional, and  
224 local, corresponding to parliamentary, regional, and municipality elections. The  
225 proportional representation system is used in all three elections with a 5% entry

226 threshold, but the mandate formulas are somewhat different. In this article, we  
227 study the regional and local (municipal) elections.

228 Since 2000, the Czech Republic has been composed of 14 administrative  
229 regions (including the capital city of Prague), which have their regional  
230 legislatures (councils) directly elected for 4-year terms.<sup>13</sup> A regional governor  
231 (“hejtman”) is then elected by the regional councils. Slates (candidate lists) can be  
232 registered in a given region by national-level political parties as well as by  
233 movements (easy-to-register local “parties” formed with the purpose of  
234 participating in one of the regional elections) and ad hoc coalitions thereof.  
235 Voters choose a preferred slate and cast up to four preferential votes (for  
236 individual candidates within their preferred slate) in order to affect the slate’s  
237 order of candidates. Council seats are determined using a proportional rule based  
238 on the d’Hondt method. Candidates receiving over 10% of all preferential votes  
239 received by their slate are given precedence within their slate. Given that the  
240 typical (median) slate contains 50 candidates, it is difficult for any one candidate to  
241 receive over 10% of all preferential votes cast by slate.

242 In local (municipal) elections, members of approximately 6000 municipal  
243 councils are also elected directly, and mayors are then elected by and responsible to  
244 their councils. Similar to regional elections, slates for municipality elections can be  
245 registered by political parties and/or movements, but also by independent  
246 candidates (including slates composed of a single independent candidate). Any  
247 combination of slate coalitions between established national-level political parties,  
248 ad hoc movements, and unions of independent candidates is possible. The maximum  
249 number of candidates on each slate corresponds to the number of councillors.<sup>14</sup>

250 Unlike the regional electoral system, the municipal one allows for *panachage*,  
251 i.e., splitting one’s votes across party (slate) lines using preferential votes. Voters  
252 can vote for a slate and/or for individual candidates from any slate that has been  
253 submitted. Specifically, a voter can (but does not have to) mark one preferred slate,  
254 which is equivalent to marking all candidates on that slate in the case that no  
255 preferential votes are cast, and can also mark his preferred individual candidates  
256 from other slates using preferential votes. The total number of preferential votes  
257 one can cast is equal to the number of councilors minus one in the case that the  
258 voter marks a preferred slate and equals the council size if the voter does not mark  
259 any slate and only marks individual candidates. Council seats are then determined  
260 using a complicated proportional rule based on the d’Hondt method, in which the  
261 slate’s share of votes and one’s position within the slate have strong explanatory  
262 power for winning council seats.<sup>15</sup> Preferential votes move a candidate to the top  
263 of the slate when the candidate receives over 10% more preferential votes than the  
264 *average* candidate on a given slate. The effect of preferential votes on the outcome  
265 of municipal elections is thus qualitatively larger than for regional elections.

## 266 267 268 **Data and key variables**

269 We use administrative election data provided by the Czech Statistical Office,  
270 which is in charge of the central processing of elections at all levels

271 (parliamentary, regional, and municipality), including the determination of  
272 election outcomes (legislature/council seat). We exclude from the analysis of both  
273 elections the capital city of Prague, which uses a different electoral system.<sup>16</sup> The  
274 data we employ correspond to the information about each candidate made  
275 available to voters on ballots: the candidate's first name and surname,<sup>17</sup> a self-  
276 reported academic title and education degree, and birth year (age).

277 The municipal election data correspond to elections held in October of 2010,  
278 when the overall turnout rate was 48.5%. Excluding the few election districts  
279 governed by exceptional electoral systems (chiefly the capital city of Prague), a  
280 total of 209,979 candidates participated in the contest for about 60,000 seats on  
281 6107 municipal councils. Nine-tenths of the election districts had fewer than nine  
282 slates registered, and the average number of slates per municipality was 4.5. Slate  
283 order on ballots was assigned randomly in each electoral district. About 21% of  
284 slates won no seats and about 5% of candidates were on one-member slates.<sup>18</sup>

285 Next, we employ data from regional elections held in October 2008, when  
286 turnout was 40.3%. Outside of the city of Prague, a total of 8264 candidates on 192  
287 slates participated in these elections for 675 seats on 13 regional councils, with an  
288 average of 15 competing slates per regional ballot. Almost 70% of the slates did  
289 not win any regional legislature seats. Slates were ordered within ballots according  
290 to a national random draw of all participating nominating parties and coalitions.  
291 It so happened that one of the parliamentary parties, the Communist Party, which  
292 nominated slates in all regions, was assigned the number 1.<sup>19</sup> It is therefore  
293 impossible to separately identify the effect of being first and the effect of being the  
294 Communist Party in regional elections.

295 One of the objectives of our analysis is to study the determinants of candidates'  
296 position on a slate. We focus on a simple and relevant indicator – being positioned  
297 sufficiently high up on a slate that this would almost guarantee winning a seat on a  
298 regional or city council if there were no preferential votes. Specifically, we count  
299 the number of seats won by each slate and denote as “electable” those candidates  
300 who are listed high enough to be within this number. (Some slates thus have no  
301 “electable” positions.) If there were no preferential votes, which can alter the  
302 implications of candidates' order within a slate, and if parties had perfect foresight  
303 as to their election success, then holding an “electable” position on a slate would  
304 be a perfect predictor of winning council seats and the choice of who is positioned  
305 within the “electable” subset of the slate would be all that mattered to candidates  
306 and parties.

307 How important is holding an “electable” position on a slate? Excluding the  
308 one-candidate slates, about 27% of candidates in the 2010 municipal elections  
309 held an “electable” position on their slate, and holding such a position was indeed  
310 important for getting elected, as only 17% of council seats were won – thanks to  
311 preferential votes – by candidates positioned below the “electable” part of their  
312 slate. In the 2008 regional elections, when over 2 million preferential votes were  
313 cast, the lowest position on a slate winning a seat due to preferential votes was 50.  
314 However, overall, given the regional election rules, preferential votes had little  
315 impact on winning seats in regional elections once the order of candidates on the

316 slate is taken into account, as less than 2% of seats were won by candidates outside  
317 of the “electable” positions.

318 **Table 1** summarizes the number of contests (councils), competing slates, and  
319 candidates, and compares means of candidates’ demographic characteristics from  
320 the 2008 regional elections and the 2010 municipality elections separately for  
321 small and large municipalities. Our data cover 13 regions, over 300 cities with at  
322 least 5000 inhabitants, and almost 6000 small municipalities. As one would  
323 expect, the chances of a candidate winning a council seat and the number of  
324 competing slates per contest are both much lower in regional elections with  
325 districts of about one million inhabitants than they are in large cities, and they are  
326 the highest in small municipalities where over one-third of candidates win council  
327 seats. Similarly, shorter slates in small municipalities imply that the average across  
328 candidates of the candidates’ share of their slate’s preferential votes is highest in  
329 small municipalities, at over 16%. We note that the share of candidates winning a  
330 seat corresponds to the share of candidates positioned within a slate on what we  
331 denote as an “electable” position.

332 Average age does not differ significantly across the three electoral contests we  
333 study, and the share of women is also similar at about 30%. It is not surprising to  
334 see that the share of candidates with academic titles of full or associate professor  
335 are highest in regional elections and lowest in small-municipality contests.  
336 Similarly for graduate degrees, about a third of the candidates running in regional  
337 elections hold an MA degree, whereas the corresponding share in small  
338 municipalities is about half that level. The share of candidates with either a law or  
339 a medical degree is particularly small in small municipalities.

340 Motivated by the discussion presented in the section on Related literature and  
341 empirical strategy, we have further coded a number of name characteristics. First,  
342

343 Table 1. Candidate characteristics and election.

344 Elections	345 Regional	345 Large municipality	345 Small municipality
346 Avg. age	46.79	46.18	44.7
347 Women (%)	29.33	32.57	30.95
348 Full professors (%)	0.19	0.10	0.01
349 Associate professors (%)	0.32	0.18	0.05
350 PhD (%)	2.23	1.59	0.50
351 MA (%)	35.62	28.57	15.45
352 BA (%)	2.82	3.47	2.22
353 With law degree (%)	1.26	0.74	0.29
354 With medical degree (%)	4.38	3.03	0.76
355 <i>N</i> of councils (contests)	13	321	5786
356 <i>N</i> of slates	192	2766	24,417
357 <i>N</i> of candidates	8264	62,637	147,342
358 Candidates winning seats (%)	8.17	11.97	34.93
359 Avg. share on slate’s 360 preferential votes	2.3	4.4	16.6

Notes: Data correspond to Czech 2008 regional and 2010 municipal elections. Large municipalities have over 5000 inhabitants.



we have created an indicator (separately for each gender) of a candidate holding one of the five most popular first names in the country.<sup>20</sup> Almost 30% (20%) of male (female) candidates hold one of the five most popular first names. We also coded indicators for candidates holding a typical Roma first or last name.<sup>21</sup> Fewer than 1% of candidates hold such names. Second, in order to test whether the linguistic characteristics of names that have been identified as potentially influential for consumer choices in the brand name literature may affect voter behavior, we have coded two indicators separately for first and last names: one for the presence of vowel repetitions,<sup>22</sup> and the other for an “initial plosive,” indicating that the name starts with a plosive.<sup>23</sup> Third, we used several controls for one’s position within a slate. In our regression specifications, we controlled not only for whether a given candidate is positioned within the ex-post “electable” part of the slate, but we also control for the (reverse) percentile position of candidates on a slate (such that higher values of this indicator correspond to a candidate being placed high on the list). In addition, we generated indicators to investigate the potential effect of a male candidate being listed immediately above or immediately below a female candidate, and we also assigned to each first and last name its percentile position in alphabetical order,<sup>24</sup> which enabled us to examine whether alphabetical listing affects candidate order in an election setting in which parties determine the slate order, i.e., when candidates are not formally ordered based on the alphabet.

Finally, for each slate, we also know whether it is registered under one of the national-level parties. We defined indicators (fixed effects) corresponding to the identity of all registered parties and slate coalitions.<sup>25</sup>

## Results

### *Candidate-level analysis*

In this section, we examine the effects of several types of candidates’ characteristics, listed explicitly or implicitly on the ballot, for (1) the order of candidates on the slates, (2) preferential votes received by candidates, and, ultimately, (3) getting elected. Specifically, the three outcome variables we attempt to explain using ballot information are: (a) a binary indicator of whether a candidate is positioned sufficiently high on his or her slate to be “electable,” i.e., within the ex-post number of council seats won by a given slate<sup>26</sup>; (b) a candidate’s share (i.e., ranging from 0 to 1) of the sum of preferential votes cast for all candidates on his or her slate; and (c) a binary indicator of whether a candidate won a council seat.

We focus on the effects of age, gender, academic titles, and graduate degrees, and of linguistic and other properties of names as cues, and we study several position/order effects as well. Since local slate political preferences are unobservable and potentially correlated with candidate average characteristics across slates, we focus on within-slate comparisons, i.e., we control for slate fixed effects. We thus do not analyze which slates are ultimately more successful, but ask, for instance, whether ballot cues have predictive power for preferential votes

cast by voters for a particular candidate, controlling for the overall attractiveness of that candidate's slate.

In both specifications of type (b) and (c), we control for candidates' position on slates, i.e., on holding an "electable" slate position, which is the focus of specifications of type (a). In doing so, we decompose the (within-slate part of the) ultimate election outcome into its two sources: the party-determined slate order and the voter-determined preferential votes. In specifications (a) and (b), we ask how ballot characteristics including name cues affect the choices of parties when ordering candidates on slates and the choices of voters when marking their preferred candidates within slates. Regression specifications (c) then "translate" the effects of ballot-listed characteristics on preferential votes studied in specifications of type (b) into those relating to the ultimate election outcomes – winning seats.




Table 2 presents coefficients from OLS regressions<sup>27</sup> of type (a), (b), and (c), estimated separately for the three election-contest groups presented in Table 1.<sup>28</sup> More specifically, columns (1) to (3) of Table 2 present parameter estimates from regressions of a binary indicator of holding an "electable" slate position on candidate characteristics in elections for regional legislatures and for councils of large and small municipalities. The question asked in the three regressions is what determines the probability that a candidate will be positioned high enough to stand a high chance of winning a council seat. As this question only applies to slates that won at least some seats, we estimate the regression on the subset of such slates. However, results are fully robust to including the slates that won no seats.

As attested by the first row of the table, women stand a substantially lower chance of holding "electable" slate positions relative to men on the same slate with comparable ballot-listed characteristics: the probability is six to nine percentage points lower for women in the three election settings we study. We also uncover positive, but diminishing "returns" to age in terms of the chances of holding an "electable" position on a slate, with candidates in their fifties most likely to be "electably" positioned. Next, it is clear that having an academic title or a graduate degree adds to one's chances of being listed high on slates. The estimated effects are broadly comparable across the three election contests we study, and imply that being an associate professor is "worth" more in terms of helping one be sorted high on a slate than having a graduate degree, which in turn helps one at least as much as having an undergraduate degree. Interestingly, given their graduate degree, lawyers secure higher positions than similar graduate degree holders from other fields, while medical doctors do not.

Having a popular first name has a positive, quantitatively important, but statistically insignificant effect in regional elections,<sup>29</sup> and appears not to affect slate order in municipality elections. In contrast, having a typical Roma first or last name has large negative effects across the board. Turning attention to linguistic properties of names, there are again quantitatively important, but statistically marginal positive effects of vowel repetition in the last name and of initial plosives in the first name in regional elections, consistent with the brand-name research

Table 2. OLS regressions explaining slate position, preferential votes, and winning seats.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	“Electable”	“Electable”	“Electable”	Pref. votes	Pref. votes	Pref. votes	Seat	Seat	Seat
Female	-0.0886** (-4.32)	-0.0593** (-11.56)	-0.0623** (-16.37)	-0.0021** (-3.02)	-0.0018** (-12.65)	-0.0049** (-16.81)	-0.0006 (-0.31)	-0.0107** (-5.72)	-0.0080* (-2.59)
Male above female on slate				-0.0002 (-0.32)	-0.0004* (-2.77)	-0.0012** (-6.00)	0.0008 (0.56)	-0.0070** (-4.60)	0.0020 (0.74)
Male below female on slate				-0.0033** (-9.50)	-0.0015** (-10.76)	-0.0023** (-13.23)	-0.0013 (-0.86)	-0.0067** (-3.13)	0.0023 (0.98)
Age	0.0285** (7.83)	0.0197** (36.83)	0.0266** (30.79)	0.0003** (2.95)	0.0006** (44.17)	0.0025** (66.08)	-0.0003 (-1.70)	0.0038** (7.99)	0.0111** (34.28)
Age/100	-0.0286** (-7.39)	-0.0203** (-37.04)	-0.0256** (-28.39)	-0.0005** (-3.80)	-0.0005** (-37.16)	-0.0026** (-62.80)	0.0003 (1.80)	-0.0033** (-5.83)	-(0.0107)** (-32.09)
Full professor	0.2305 (1.48)	0.0618 (1.37)	0.0803 (0.79)	0.0201** (4.13)	0.0056** (3.09)	0.0261* (2.61)	-0.0011 (-0.38)	0.1270 (2.04)	0.0037 (0.07)
Associate professor	0.2907** (2.93)	0.3438** (6.46)	0.1835** (3.60)	0.0209** (3.56)	0.0045** (3.42)	0.0207** (4.73)	0.0010 (0.46)	0.1173** (5.38)	0.1638** (4.67)
PhD	0.0914* (2.30)	0.2033** (15.65)	0.2064** (12.10)	0.0061** (3.01)	0.0058** (12.74)	0.0134** (11.27)	-0.0057 (-0.97)	0.0560** (8.16)	0.1160** (7.61)
MA	0.1138** (6.41)	0.1527** (30.07)	0.1988** (56.78)	0.0058** (10.23)	0.0042** (27.52)	0.0121** (42.17)	0.0021 (1.40)	0.0409** (20.59)	0.0878** (35.67)
BA	0.1391** (3.87)	0.1134** (9.35)	0.1608** (29.01)	0.0023* (2.15)	0.0022** (10.29)	0.0080** (11.91)	-0.0042 (-0.96)	0.0159** (3.51)	0.0389** (4.94)
Law degree	0.1373* (2.41)	0.0757** (3.63)	0.0999** (3.43)	0.0066 (1.82)	0.0007 (1.34)	0.0030 (1.93)	0.0017 (0.80)	0.0171 (1.44)	0.0747** (3.79)
Medical degree	-0.0309 (-0.93)	-0.0257** (-3.09)	-0.1040** (-6.47)	0.0118** (7.51)	0.0078** (16.05)	0.0108** (9.21)	0.0026 (0.69)	0.1482** (21.61)	0.1535** (8.79)
Popular male name	0.0170 (0.80)	-0.0031 (-0.79)	0.0022 (0.54)	0.0006 (0.84)	0.0001 (1.38)	0.0006 (1.63)	0.0006 (0.32)	0.0001 (0.03)	0.0075** (3.30)
Popular female name	0.0424 (1.42)	-0.0013 (-0.22)	0.0065 (1.48)	0.0006 (0.67)	0.0004 (1.64)	0.0007 (1.66)	-0.0000 (-0.02)	-0.0042 (-1.12)	0.0065 (2.00)
Roma name	-0.1590** (-3.42)	-0.0453 (-0.37)	-0.1466 (1.25)	-0.0083** (-4.02)	-0.0111 (-1.69)	-0.0130 (-1.25)	-0.0036 (-1.69)	-0.0242 (-0.77)	-0.0014 (-0.03)

(Continued)

Table 2 – continued

	(1) “Electable”	(2) “Electable”	(3) “Electable”	(4) Pref. votes	(5) Pref. votes	(6) Pref. votes	(7) Seat	(8) Seat	(9) Seat
Roma surname	-0.1034** (-2.98)	-0.1055** (-2.82)	-0.0932* (-2.21)	-0.0027 (-0.74)	-0.0006 (-0.40)	-0.0076** (-3.21)	-0.0001 (-0.02)	-0.0030 (-0.23)	-0.0091 (-0.51)
Vowel repetition in name	0.0187 (1.08)	-0.0002 (-0.07)	-0.0023 (-0.72)	0.0003 (0.40)	-0.0001 (-0.93)	-0.0003 (-1.73)	0.0008 (0.54)	-0.0028 (-1.37)	-0.0014 (-0.86)
Vowel repetition in surname	0.0213 (1.71)	-0.0044 (-1.36)	0.0023 (1.31)	-0.0001 (-0.35)	-0.0000 (-0.15)	-0.0003 (-1.50)	0.0021 (2.06)	0.0006 (0.33)	-0.0028 (-1.74)
Initial plosive in name	0.0287 (1.77)	0.0074 (1.76)	-0.0003 (-0.08)	-0.0003 (-0.60)	-0.0000 (-0.02)	-0.0001 (-0.19)	-0.0005 (-0.34)	-0.0040 (-1.74)	-0.0025 (-1.27)
Initial plosive in surname	-0.0101 (-0.70)	0.0019 (0.52)	-0.0027 (-1.02)	0.0001 (0.28)	0.0001 (1.14)	0.0001 (0.49)	0.0009 (0.68)	-0.0007 (-0.50)	0.0043* (2.20)
Alphabet position of name	0.0494 (1.75)	0.0058 (0.88)	-0.0052 (-0.85)	-0.0018 (-1.56)	0.0004 (1.45)	-0.0000 (-0.05)	0.0035 (0.92)	-0.0010 (-0.32)	0.0001 (0.02)
Alphabet position of surname	-0.0325 (-1.14)	-0.0026 (-0.28)	-0.0159** (-3.92)	-0.0002 (-0.13)	0.0003 (1.36)	0.0009* (2.18)	0.0010 (0.33)	0.0012 (0.35)	0.0071 (2.06)
Slate order (percentile, reversed)				0.0405** (39.99)	0.0249** (82.77)	0.0525** (105.49)	0.0057* (2.53)	0.1165** (29.95)	0.2110** (53.55)
“Electable” position on slate				0.0115** (6.96)	0.0037** (12.32)	0.0121** (37.23)	0.9783** (205.34)	0.5978** (116.96)	0.4970** (175.80)
Adjusted R <sup>2</sup>	0.105	0.095	0.260	0.647	0.888	0.978	0.970	0.520	0.551
N	3155	48,156	136,744	8236	62,411	147,110	7042	62,411	147,113
N of slates	56	2079	19,319	190	2761	24,393	151	2761	24,396
Elections Municipality	Regional	Municipal Large	Municipal Small	Regional	Municipal Large	Municipal Small	Regional	Municipal Large	Municipal Small

Notes: The outcome variable in columns (1) to (3), where only slates winning at least one seat are used, is a binary indicator of a candidate being positioned high enough on the slate to be within the ex-post number of council seats won by the slate. In columns (4) to (6), the outcome variable is the candidate's share of all preferential votes cast for candidates in his or her slate. In columns (7) to (9), the outcome variable is a binary indicator of a candidate winning a council seat. All regressions are conditioned on slate fixed effects; *t*-statistics based on robust standard errors are presented in parentheses.

\*Statistical significance at the 5% level.

\*\*Statistical significance at the 1% level.

541 cited above, but no discernible effect in municipality elections where candidate  
542 salience is likely higher.

543 There is only one statistically significant effect of the alphabetical position of  
544 one's name<sup>30</sup>: in small municipalities, having a last name starting with "Z" as  
545 opposed to "A" lowers one's chances of holding an "electable" position on a slate  
546 by about 1.5 percentage points (relative to the 35% average share of such  
547 candidates). This estimate is consistent with the notion that initial drafts of slates  
548 use alphabetically sorted lists and that "hand-made" order changes in small  
549 municipalities are not sufficient to fully eliminate the initial sorting. Consistent  
550 with the presence of this suggested mechanism, one would expect no effects of the  
551 alphabetical position of the first-name initial. With the one exception of the  
552 coefficient corresponding to regional elections, which is only marginally  
553 significant, our expectations were confirmed in that the other eight estimated  
554 coefficients in Table 2 were precisely estimated zeros.

555 We also note that the explanatory power (adjusted  $R^2$ ) of ballot-listed  
556 characteristics for candidates' order on a slate is over twice as high in small  
557 municipalities, where a higher share of candidates holds "electable" slate positions  
558 and where candidate salience is likely to be higher. This could be explained by the  
559 lower availability of candidates with academic titles and graduate degrees in small  
560 municipalities, leading to a higher "election value" of such characteristics.

561 Next, columns (4) to (6) present the core of our analysis of voter behavior in  
562 low-information settings. Voters do not award preferential votes to women as  
563 generously as to male candidates comparable in terms of slate position and ballot-  
564 listed characteristics, but the difference is small, at less than a half of a percentage  
565 point. A male listed close to a female, particularly below a female, is less likely to  
566 receive preferential votes (controlling for his overall position on the slate captured  
567 by the "electable" dummy and by the percentile slate order, which are both included  
568 in the regression). These effects, while interesting, are quantitatively very small.

569 Voters prefer higher academic titles and graduate degrees. Compared to  
570 candidates with other graduate degrees, medical doctors, but not lawyers, receive a  
571 higher share of the preferential vote awarded to all candidates on a given slate.  
572 Slate order set by parties is thus in contrast to voter preferences in terms of both the  
573 male–female and the doctor–lawyer comparison. Name properties including  
574 popularity or linguistic features have no effect on voter choices.<sup>31</sup> The exception is  
575 that typical Roma names again have a negative impact, which is similar in size to  
576 the positive treatment that medical doctors receive.

577 Slate position, captured by the "electable" dummy and by a continuous  
578 measure of one's position in the slate list, has a major effect on the award of  
579 preferential votes in all three settings. Moving from the bottom to the top of the  
580 slate increases one's share of the slate's total of preferential votes received by as  
581 much as six percentage points – a large effect.

582 How do our estimates line up across the three election settings in view of the  
583 suggested differences in voter interest in and familiarity with the candidates? The  
584 importance of demographic, education, and ethnic correlates of candidate  
585 qualifications and political views (i.e., the importance of ballot information of type

(2)) appears to be similar in regional and small-municipality elections, despite the general agreement in the Czech political science literature that candidate salience is substantially higher in small municipalities. However, the explanatory power of all ballot-listed information for the award (within slates) of preferential votes is highest in smaller election districts as the  $R^2$  is close to 100% in small-municipality elections. Once local unobservable preferences for entire slates are filtered out of the data, slate order together with ballot-listed characteristics predict almost all voter behavior in smaller election districts, even though candidate salience is likely to be high there.

This finding may correspond to voters relying on ballot information more heavily in smaller election districts because they actually do not differentiate between candidates based on personal knowledge, or it could be the result of candidates' true qualifications (unobservable to us) being more closely correlated with their observable ballot information in smaller districts. Unfortunately, given that ballot cues of type (3) (i.e., name properties) are not predictive of voter behavior in all three settings, we do not provide much evidence for our hypothesis that heuristics and cues are more important in regional elections due to lower salience.<sup>32</sup> We believe, however, that such comparisons, i.e., of the import of type (3) information across elections, can in the future be used to complement qualitative work on salience across election settings.

Finally, in columns (7) to (9) of Table 2, we measure the importance (magnitude) of the estimated differences in preferential vote driven by ballot-listed candidate characteristics in columns (4) to (6) for candidates' chances of actually winning a council seat. We do so by regressing a binary indicator of winning a seat on the same set of explanatory variables that were used in columns (4) to (6), i.e., including variables capturing one's position on a slate. We must quickly note that the election rules discussed in the section on Czech municipal and regional elections imply that preferential votes have a negligible impact on regional election outcomes, as less than 2% of regional legislative seats were won by candidates outside of the "electable" slate positions. Hence, the only relevant coefficient in column (7) is the "electable" dummy, which is close to 1 in value and which is chiefly responsible for the near-full  $R^2$  of this regression. The only informative coefficients are thus found in columns (8) and (9).

Accounting for the disadvantaged slate position of women, they are about one percentage point less likely to win seats than male candidates who are comparable in terms of ballot information. Even being listed close to a female candidate hurts the chances of male candidates in municipal elections in cities. Academic titles and graduate degrees have stronger positive effects in small municipalities than in large ones, with the exception of the equally sized effect of holding a medical degree. Popular first names help male candidates win seats in small municipalities. Finally, linguistic properties of names have only negligible effects. Perhaps the properties we coded based on the English-language brand name literature, even if we attempted to focus on general ones, are not applicable to the Slavic Czech setting.

### *Slate-level analysis*

631  
632 In the section on the Related literature and empirical strategy, we discussed  
633 existing work that measures the electoral advantage to a candidate of being  
634 randomly listed first on a ballot in single-seat elections. In multi-seat elections  
635 where candidates are organized by party slates, there could be a similar advantage  
636 to an entire slate being randomly listed first on the ballot. In Czech regional and  
637 municipal elections, the paper ballot is often physically large and contains several  
638 slates and hundreds of individual candidates.<sup>33</sup> It could be that the attention of  
639 voters to individual candidates or entire slates fades with the increasing amount of  
640 candidate information they are expected to process. We therefore use the random  
641 slate order to (be the first to) quantify the potential position advantage of the  
642 random *slate order* on ballots.

643 Slate order was randomized in both the regional and the municipal elections we  
644 study. The randomization was conducted locally in each municipal electoral  
645 district, but nationally for all parties (slate coalitions) participating in regional  
646 elections. In municipal elections, we thus ask about the effect of being listed as the  
647 first slate and also about the effect of being among the first three slates on a ballot.  
648 Unfortunately, we cannot identify the effect of being listed first in regional  
649 elections as the Communist Party, which was randomly assigned the first position  
650 at the national level, nominated slates in all regions. It is therefore impossible to  
651 disentangle the part of the Communists' election outcome that reflects the political  
652 preferences of the electorate from the part that may correspond to the fact that they  
653 were always listed first on regional ballots and may therefore have received more  
654 attention. Both effects are combined in the estimate of the Communist fixed  
655 effects, which is included together with all other party fixed effects. We can,  
656 however, ask about the effect of a slate being listed second or third on a ballot in  
657 regional elections since not all of the 60 parties and slate coalitions that entered the  
658 national-level random draw of slate order numbers nominated slates in all regions.  
659 In particular, within the first 20 numbers drawn, there were only 3 national-level  
660 parties and 17 mostly region-specific political entities, which did not nominate  
661 slates in most regions.<sup>34</sup>

662 Another issue with the comparability of estimates across the two elections we  
663 study concerns the typical number of competing slates in electoral competitions,  
664 which is an important factor for the question of whether slates listed high on the  
665 ballot enjoy some attention advantage. The minimum number of competing slates  
666 in regional elections was 13, but most municipal election districts had less than 10  
667 competing slates. Since being randomly listed within the first three slates does not  
668 convey a significant attention advantage when the total number of slates is small,  
669 we perform the analysis only for those municipal-election contests with at least 13  
670 competing slates; in this way, we also maximize the comparability of the  
671 estimated parameters across the two elections.<sup>35</sup>

672 **Table 3** lists regression parameters based on running the share of the council  
673 seats won by a slate on indicators for that slate being listed first or for being listed  
674 second or third. The outcome variable has a mean (standard deviation) of 0.24  
675

Table 3. OLS regressions explaining slate electoral success (winning seats).

	(1)	(2)	(3)	(4)	(5)	(6)
First	–	0.043*	0.001	–	0.018**	0.004
		(0.024)	(0.004)		(0.008)	(0.003)
Second or third	0.021*	0.014	0.004	0.022*	0.005	0.004
	(0.012)	(0.011)	(0.003)	(0.012)	(0.006)	(0.002)
<i>N</i> (of slates)	192	351	3729	192	1180	7312
Min. <i>N</i> per district	13	13	13	13	10	10
Party fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Slate characteristics	–	–	–	Yes	–	–
Adjusted $R^2$	0.94	0.55	0.01	0.95	0.49	0.06
Elections Municipality	Regional	Municipal	Municipal	Regional	Municipal	Municipal
	–	Large	Small	–	Large	Small

Notes: The outcome variable is the share of the council seats won by a slate. The explanatory variables are indicators for a slate being listed first on the paper ballot and for being listed second or third. Slate characteristics are average candidate characteristics (from Table 2). Specifications listed in columns (5) and (6) additionally control for the number of slates competing in a district. *t*-Statistics based on robust standard errors are presented in parentheses.

\*Statistical significance at the 10% level.

\*\*Statistical significance at the 5% level.

(0.26) in small municipal election districts, 0.12 (0.11) in large municipal election districts, and 0.07 (0.13) in regional election districts. In column (1), we regress shares on regional legislatures won by each of the 192 slates participating in regional elections on a full set of 60 fixed effects (for all of the nationally registered parties and slate coalitions) and on an indicator of a slate being randomly listed second or third. The coefficient estimate implies that being sorted high on a paper ballot increases the share of seats won by a slate by about 0.15 of a standard deviation – a major effect. The effect of being listed first on a ballot in large-municipality contests in column (2) is twice as large. However, we find no significant effects of random slate order in small municipalities, consistent with higher salience levels there.

In columns (4) to (6), we perform two types of robustness checks. First, we ask whether estimates are sensitive to controlling for average attractiveness of slates in terms of (slate averages of) various demographic and educational characteristics of candidates that we studied in the previous section. This specification issue is often discussed in the analysis of randomized field experiments. Controlling for characteristics (of control and treatment group participants) has little theoretical justification in large randomized trials where they are orthogonal to treatment (i.e., balanced across treatment status) by construction of the experiment. In small-sized experiments, however, one considers adding explanatory variables with the trade-off of increasing efficiency versus potentially introducing small-sample biases through over-controlling (e.g., Duflo, Glennerster, and Kremer 2007). In our 13 regional elections with 192 slates competing overall, only 26 slates can be second or





721 third based on random order and our “treatment” group is thus rather small. Hence,  
 722 we compared regional election estimates based on specifications controlling for  
 723 slate characteristics in column (4) with those in column (1) that do not control for  
 724 variables other than the random order, and found them to be identical.<sup>36</sup>

725 Second, we considered whether the municipal election findings are sensitive to  
 726 the sample cut-off in terms of the minimal number of slates per competition.  
 727 In columns (5) and (6), we extend the analysis to districts that had at least 10 slates  
 728 competing for voters’ attention. The estimated effect of being listed first in large-  
 729 municipality contests is smaller, which is consistent with the notion that order  
 730 attention effects are larger when there are more slates to process, and the results  
 731 are qualitatively fully similar to those presented in columns (2) and (3).<sup>37</sup>

## 733 Conclusions

734 How important are ballot-listed candidate characteristics for candidate order on  
 735 slates, preferential votes, and election outcomes? We answer this question in three  
 736 election settings that are likely to be ordered in terms of candidate salience while  
 737 accepting as given, by controlling for slate fixed effects, both the endogenous  
 738 choices involved in the formation of slates and the slate-specific local voter  
 739 preferences.



742 We find that in Czech regional and municipal elections, women tend to be  
 743 nominated at poorer (lower) slate positions, despite receiving almost identical  
 744 preferential vote support as men. These findings are similar to estimates obtained  
 745 by Esteve-Volart and Bagues (2012) for Spain and De Paola, Scoppa, and  
 746 Lombardo (2010) for Italy. In Czech regional elections where slate order is key to  
 747 winning seats, the gender gap in the probability of holding an “electable” slate  
 748 position is almost nine percentage points. Even being sorted on a slate next to a  
 749 female candidate lowers the chances of being elected for male candidates.

750 Academic titles and graduate degrees are strongly predictive of slate order and,  
 751 controlling for slate order, have large positive effects on preferential votes and on  
 752 the chances of winning council seats, especially in small municipalities where  
 753 there are relatively few highly educated candidates. Voters also prefer doctors to  
 754 lawyers, even if parties do not.

755 The explanatory power of ballot-listed characteristics such as education for  
 756 within-slate voter decisions is high, especially in smaller election districts. This  
 757 finding could be interpreted as corresponding to uninformed voters using ballot-  
 758 listed observables to guess about candidate quality. Alternatively, it could be that  
 759 in small municipalities, candidate ballot-observable characteristics are closely  
 760 correlated, within slates, with their voter-observed quality, which remains  
 761 unobservable to us. In order to fully disentangle the competing interpretations,  
 762 future work should combine election data of the type we use with direct measures  
 763 of voter interest and knowledge of candidate quality.

764 One could also shed light on this issue by measuring the explanatory power  
 765 for voter behavior of ballot cues that are uncorrelated with candidates’ true  
 qualifications and political views. Unfortunately, we are unable to provide a

766 strong comparison across our three election settings in terms of the importance of  
 767 such ballot cues. Name popularity and ethnic connotations do predict election  
 768 behavior, but with few exceptions, we find linguistic properties of names to be of  
 769 little importance. We do find ballot cues to play a role in small municipalities,  
 770 despite the general agreement on high candidate salience there, but, overall, our  
 771 estimates of ballot cue importance are weak and not systematically different  
 772 across electoral setting. While our study therefore does not complement the  
 773 qualitative evidence from Czech electoral studies suggesting that salience levels  
 774 are high in small municipalities and voter interest low in regional elections, we  
 775 do believe that the novel types of comparisons we provide could be fruitfully  
 776 used in future research comparing electoral behavior across settings that are  
 777 characterized by different levels of voter interest in and familiarity with the  
 778 competing candidates.

779 Our second contribution to the literature on ballot effects is that we use  
 780 randomized slate order to reveal a slate position advantage within ballots, similar  
 781 to that estimated for individual candidates when their order is randomized on  
 782 ballots in single-seat elections. Specifically, slates listed in the first three positions  
 783 on a paper ballot enjoy higher shares of council seats won in both regional and  
 784 large-municipality election contests. These effects are quantitatively large at about  
 785 0.2 of a standard deviation. However, we find no sizeable effects of slate order in  
 786 small municipalities, consistent with higher salience levels there.

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### 798 **Notes**

- 799 1. A slate is a group of candidates running on a common platform in multiseat  
 800 elections.
- 801 2. This work is part of the broad order-effects literature, which covers various types of  
 802 contests including classical music competitions (van Ours and Ginsburgh 2003) or  
 803 school admissions (Jurajda and Münich 2010). More generally, the literature on  
 804 voting behavior asks how the design of ballots and voting technology may affect  
 805 electoral and policy outcomes (e.g., Fujiwara 2013).
- 806 3. There is little work on order effects in elections in which parties determine the  
 807 ordering of candidates within slates, in large part because in this case the order  
 808 contains information about the (party-perceived) quality of the candidates. Faas and  
 809 Schoen (2006) are an exception based on a quasi-experimental design.
- 810 4. Similarly, economists have explored the labor market effects of racial attributes of  
 first names (Bertrand and Mullainathan 2004; Fryer and Levitt 2004; Aura and Hess  
 2010).

- 811 5. The European Commission has identified the standing of the Roma minority as one  
812 of its key policy challenges (see, e.g., <http://ec.europa.eu/roma>).
- 813 6. Phonetic (sound) symbolism refers to the ability of phonemes (the fundamental  
814 building blocks of language) to convey information on their own (Yorkston and  
815 Menon 2004). For example, Lowrey and Shrum (2007) suggest that participants in  
816 experiments least prefer fictitious brand names containing negative vowel sounds,  
817 i.e., sounds that generally have negative connotations in the English language.  
818 Similarly, Nelson and Simmons (2007) present evidence suggesting subconscious  
819 effects of name connotations.
- 820 7. The analysis is based on assigning “points” to the relevant several hundred candidate  
821 names for their phonetic properties such as rhythm, stress position, vowel stress  
822 depending on position in the name, terminal nasal position, etc. The assignment was  
823 originally developed in 1998, and over subsequent years it was applied to several US  
824 elections. Unfortunately, such assignments cannot be easily automated and so  
825 remain outside of the scope of our study, where we work with several hundreds of  
826 thousands of names.
- 827 8. Czech electoral studies (published in Czech) highlight the relatively low importance  
828 of, and voter interest in, regional elections (Šaradín 2008; Havlík and Hoskovec  
829 2009) and the typically intimate voters’ knowledge of municipality election  
830 candidates (Balík 2009; Čmejrek, Bubeniček, and Čopík 2010). The turnout in the  
831 last (2010) municipal elections was 48.5%, while turnout in the last (2012) regional  
832 elections was 37%. In general, the cost of primary information per candidate  
833 is likely to be lower in municipal elections, where the number of candidates per slate  
834 is lower.
- 835 9. Such as when voters prefer, for example, candidates similar to themselves (Cutler  
836 2002).
- 837 10. This may be the case even if these candidates may be of low quality in terms of their  
838 less easily observable qualities, such as managerial skills, not being prone to  
839 corruption, having a genuine interest in municipal management, etc.
- 840 11. For a similar approach, see Faas and Schoen (2006).
- 841 12. The interpretation of incumbency effects, similar to the effects of some other major  
842 candidate characteristics, is affected by unobservable candidate qualifications.  
843 It may be that genuinely better candidates win elections repeatedly, or that  
844 incumbency gives one an electoral advantage over similarly qualified candidates,  
845 thanks to the incumbent’s higher familiarity.
- 846 13. The number of council members varies from 45 in regions with up to 600,000  
847 inhabitants to 65 in regions with over 900,000 inhabitants.
- 848 14. Council size is proportionate to the population of the municipality, and ranges from  
849 5 to 55.
- 850 15. As in the regional elections, a slate must get at least 5% of all votes (including the  
851 preferential votes) to enter into the municipal council seat determination rule.
- 852 16. In the analysis of municipal election data, we also exclude the city of Olomouc  
853 (100,000 residents) for the same reason.
- 854 17. The use of middle names is extremely rare in the Czech Republic.
- 855 18. These candidates will thus be effectively excluded from our regression analysis,  
where we control for slate fixed effects.
19. See <http://www.mvcr.cz/clanek/statni-volebni-komise-vylosovala-cisla-pro-oznaceni-hlasovacich-listku-politickych-stran-hnuti-a-koalic.aspx>
20. We used the five most frequent first names in the population name registry: <http://www.mvcr.cz/clanek/cetnost-jmen-a-prijmeni-722752.aspx>. These were Jana, Hana, Eva, Lenka, and Martina for women and Jan, Jiří (George), Martin, Pavel, and Petr for men. We also added the first name Václav to the list of popular first male names based on the argument that the name is highly visible among the country’s

- 856 leading politicians, including the first post-communist President Václav Havel and  
 857 the long-serving Prime Minister Václav Klaus.
- 858 21. We used five first names (Demeter, Fero, Dezo, Imrich, and Istvan), similar to the  
 859 number of popular first names, and a longer set of last names (Kovac, Horvath,  
 860 Balaz, Lakatos, Balog, Kolompar, Sarkozi, Gerza, Olah, Demeter, Sivak, Ziga, and  
 861 Nemeth). The selection is based in large part on Marek (2012).
- 862 22. See, for example, Argo, Popa, and Smith (2010) for work on the cognitive effects of  
 863 sound repetitions.
- 864 23. Plosives are “b,” “c,” “d,” “g,” “k,” “p,” “q,” and “t” (Vanden Bergh, Adler, and  
 865 Olivier 1987; Lowrey, Shrum, and Dubitsky 2003).
- 866 24. The percentile position is determined relative to the distribution of initials in the  
 867 entire pool of candidates we studied. In effect, we measured sorting distances using a  
 868 metric that takes into account the frequency of various name initials in the candidate  
 869 population. We also alternatively coded this variable based on one’s position in the  
 870 population registry. The results reported here were not materially affected, as the  
 871 correlation of the shares of first-name as well as last-name initials on all candidates  
 872 with the shares of name initials in the population register is 0.99.
- 873 25. Among the 60 parties and slate coalitions registered for the 2008 regional elections,  
 874 there were seven parties that were in the central government coalitions either in 2008  
 875 or 2010: the Christian Democrats (KDU-CSL), the Social Democrats (CSSD), the  
 876 Civic Democrats (ODS), the Communists (KSCM), the Green Party (SZ), the Public  
 877 Affairs Party (VV), and the TOP09 Party.
- 878 26. See the preceding section for the definition of “electable” slate positions. We also  
 879 estimated alternative specifications with the candidate percentile order within a slate  
 880 serving as the dependent variable. The results, which are highly similar to those  
 881 presented here, are available upon request.
- 882 27. OLS is widely used in the literature (e.g., Kelley and McAllister 1984; Matson and  
 883 Fine 2006; Esteve-Volart and Bagues 2012). We compared the probability  
 884 derivatives from a Logit model to the OLS coefficients and they were fully  
 885 consistent; these results are available upon request.
- 886 28. The numbers of candidates and slates used in these regressions are occasionally  
 887 somewhat smaller than those presented in Table 1 due to minor shares of  
 888 observations with missing values.
- 889 29. A positive effect of having a popular name is consistent with two underlying  
 890 mechanisms: Parties may expect voters to generally prefer such names, or, given the  
 891 high share of voters having such names, to vote for candidates who have the same  
 892 name as the voter (Cutler 2010; Knewtson and Sias 2010).
- 893 30. The explanatory variable is coded as one’s percentile position in an alphabetically  
 894 sorted list of all candidates in our data.
- 895 31. The one statistically significant coefficient – for last name alphabetical order in  
 896 column (6) – is a precisely estimated zero.
- 897 32. Our only evidence of higher importance of name cues in regional elections comes  
 898 from the marginally significant effects of initial plosives and vowel repetition on slate  
 899 order, and thus operates through party (not voter) decisions. In absence of an effect of  
 900 these name properties on preferential votes, it is hard to argue that parties reflect on  
 these name properties in expectation of being rewarded for doing so by voters.
33. For an example of a municipal ballot with nine slates and almost 250 candidates from  
 the city of Náchod (20,000 inhabitants), see [http://upload.wikimedia.org/wikipedia/  
 commons/3/37/Voting\\_ballot\\_Czech\\_communal\\_election\\_2010\\_-\\_district\\_N%  
 C3%A1chod.pdf](http://upload.wikimedia.org/wikipedia/commons/3/37/Voting_ballot_Czech_communal_election_2010_-_district_N%C3%A1chod.pdf)
34. The national-level parties that drew low slate order numbers were the Communists  
 with number 1, the Christian Democrats with number 12, and Greens with number

18. While the Communists are thus always first, the Christian Democrats and the Greens are among the first three slates 80% and 30% of the time, respectively.
35. We further dropped from the municipal-election analysis all parties and coalitions that nominated only one slate. Given the inclusion of party fixed effects, these observations would not be used in any case.
36. A similar comparison was performed for municipal elections, with the same result.
37. The specifications listed in columns (5) and (6) condition on one additional variable: As the share of seats won by a typical slate clearly declines with the number of competing slates in a district, we also control for the number of slates per district. The inclusion of this variable has only a small effect on the key estimates. Further, it is not important whether we parameterize the effect of this additional control variable as a linear or as a nonparametric step function in the number of slates.

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