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# Does Election of an Additional Female Councilor Increase Women's Candidacy in the Future?

Jekaterina Kuliomina\*

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## Abstract

I study the changes in female political participation that occur when an additional female candidate is elected to the local council. To address the endogeneity related to non-random election outcomes I employ a Regression Discontinuity Design. I focus on close competition for the last seat in the Czech municipal (local) elections between a male and a female candidate. I find that the election of an additional female candidate leads to fewer newly participating female candidates in the following elections. The effect is stronger in the municipalities where the marginally elected female candidate was successful.

JEL Classification: J16, H11

Keywords: political participation, women and politics, regression discontinuity, gender, female representation, Czech Republic

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# 1 Introduction

Female political participation is a topic that draws a substantial amount of attention from international organizations and society worldwide.<sup>1</sup> Debates about female under-representation have also spread to various levels of governance: from the local all the way to the national. Gender parity in political institutions is viewed as an important goal, since it is a way to account for women's preferences that are different from men (Campbell et al 2010, Swers 2002, Wangnerud 2000). Meanwhile we observe an under-representation of women in political institutions, not only in developing, but also in developed countries. Various ways to increase female representation, such as gender quotas (Campa 2011, Esteve-Volart & Bagues 2012) and exposure of potential female politicians to a role model, i.e. an existing female politician (Bhalotra et al 2013, Broockman 2014, Gilardi 2015), are analysed in the literature<sup>2</sup>. It would be useful for policy makers to know whether the process of increasing female participation only needs to be stimulated in the beginning and not for longer. At this point it remains unclear whether a marginal increase in the number of female politicians can stimulate a spillover.

In this paper I analyse Czech local elections data and show that increasing the pool of incumbent women via a competitive election may have an opposite effect than expected, i.e. lead to fewer female candidates on slates in the next elections. Since the outcomes of the elections could potentially be endogenous to the municipality characteristics (Smith et al 2012), I employ a Regression Discontinuity Design (RDD). I compare the municipalities where the marginally elected councilor is a female who placed just ahead of a male candidate to the municipalities where the situation was the opposite.

The question of what influences female political participation has been studied in the literature from different angles. On the local level, Beaman et al (2009) and Eggers (2011) analyse the effect of electing a female mayor and De Paola et al (2010)

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<sup>1</sup>Increasing the number of seats women hold in national parliaments is one of the Millenium Development Goals (United Nations). The Organization for Economic Co-operation and Development (OECD) suggests that the increase in female political participation is an important sphere to invest in.

<sup>2</sup>The topic is also extensively studied in political science. See, among others, Wolbrecht & Campbell 2007 and Murray 2008.

examine how a gender quota affected female representation after it was abolished. Bhalotra et al (2013) and Broockman (2014) concentrate on the state level. To the best of my knowledge, only one paper (Gilardi 2015) has so far employed the combination of the three design features that are characteristic of this paper: 1) the influence of a seat holder rather than a mayor; 2) local political level rather than state; 3) competitive election of a female candidate rather than quota-induced. Gilardi (2015) studies both municipalities and competitive election of female council members. The setting is, however, not ordinary - Switzerland of the time when women were first allowed to participate in elections in 1969<sup>3</sup>. In addition, the identification strategy is not based on a random election of candidates. It is common in the literature to use RDD that takes into account the victory margin between the elected and unelected candidates in order to avoid endogeneity (Bhalotra et al 2013, Brollo & Troiano 2013, Broockman 2014, Clots-Figueras 2011, Eggers 2011, Ferreira & Gyourko 2014).

Analysing how the gender of a local council member, as opposed to the mayor or state legislator, influences other women is an important extension to the literature. First, though less noticeable than a mayor, a council member participates in the decision-making and is among community leaders too. Second, the decision to participate in the elections on the local level is the first a potential politician takes in his/her career that can lead to becoming a Mayor; the municipal level is also likely to be the first step for those who want to be involved in politics on the higher - regional or state -levels. Third, from the regulatory prospective, the gender of a council seat holder is relatively easy to regulate. It is, therefore, necessary to study this angle to see the full picture of how female political participation is shaped.

Gender quotas introduce a random variation in the number of women, either on slates or among council members, and are therefore popular among researchers addressing a variety of questions (Baltrunaite et al 2014, Beaman et al 2009, Bhavnani 2009, Campa 2011, Chattopadhyay & Duflo 2004, Chen 2010, De Paola et al 2010, Deininger et al 2015, Eggers 2011). Quotas, however, might also have a negative effect on attitudes of the electorate, since the latter have to choose from among a pool of candidates which is possibly not natural for them (Clayton 2015). Competitive election of women does not face this particular problem. It might be problematic

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<sup>3</sup>In the Swiss municipalities in canton of Zurich.

due to possible unobservable women-friendliness inside a particular municipality. Since I apply the RDD and estimate the model on a narrow margin this concern is irrelevant.

Comparing the municipalities of interest on the narrowest margin, I find that exposure of a municipality to an additional woman in the local council has a negative effect on female political participation in the next elections. In those municipalities we observe fewer female candidates on slates<sup>4</sup>. The effect is driven by fewer newly participating female candidates<sup>5</sup>. The participation rate of new female candidates drops by at least 3 percentage points.<sup>6</sup> Meanwhile, both the likelihood of an incumbent female politician participating in elections again and the likelihood of winning conditional on participation are higher than for a female candidate who ran in elections and did not get elected (in line with Trounstein 2011 and Redmond & Regan 2015). In addition, the effect is stronger in the municipalities, where the marginally elected female candidate was successful, i.e. was reelected with a stronger than marginal victory margin in the next elections.

My findings contradict the existing literature. Electing a female mayor has a positive long-term effect on female political participation in India on the local level (Beamen et al 2009), as well as electing an additional female legislator on the state level (Bhalotra et al 2013). No effect was documented for France on the local level (Eggers 2011) and US on the state level (Broockman 2014). A positive effect was found in Italy (De Paola et al 2010) and in Switzerland when women were first allowed to participate in elections in 1969 (Gilardi 2015). I explain the difference between my results and those in the literature with the contrasting female political participation level that is rather high in the Czech Republic and significantly lower in India, Italy and Switzerland in the 1970s<sup>7</sup>.

The negative effect on the number of newly participating female politicians is nearly twice as strong in the municipalities where the marginally elected female

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<sup>4</sup>A slate is a list of candidates submitted by a party to the elections committee.

<sup>5</sup>New female candidates are those who did not participate in the elections in time  $t-1$  when the additional female councilor was elected and do participate in the elections in time  $t$ .

<sup>6</sup>I define the participation rate of new female candidates as the number of new female candidates (2.6 on average) divided by the total number of candidates in the municipality (15 on average).

<sup>7</sup>In contrast to the nearly 30% of female council members in the Czech councils in Italy approximately 7% of councilors are women, in India - 13%.

candidate was successful. This evidence is not compatible with the story of the poor quality of the marginal candidate. It is not the case that the marginally elected candidates are politically weaker and leave their electorate (or parties) dissatisfied with their performance.

In my setting I do not find evidence for the extensively discussed “demonstration effect” (Bhalotra et al 2013, Broockman 2014, Eggers 2011, Gilardi 2015, Campbell & Wolbrecht 2006, Wolbrecht & Campbell 2007), whereby observing women involved in politics might inspire other women to participate in elections too. Though the possibility of a role model seems natural, to date it is only proven to affect the intentions of women to participate in politics (Campbell & Wolbrecht 2006, Wolbrecht & Campbell 2007) or aspirations of adolescents (Beaman et al 2012) and, only in one case, actual participation (Gilardi 2015). With fewer female candidates on slates after a municipality was exposed to more female councilors I find no evidence in support of role model influence of elected female politicians on other women.

I also show that the affiliation of the marginally elected councilors with a major party does not matter. Multiple studies find that political parties influence policy outcomes (Pettersson-Lidbom 2008, Joshi 2015, Migueis 2013, Freier & Odendahl 2012). In the gender-related literature, a conclusion as to whether the partisanship of female politicians matters has not been reached. Women seem to influence women from the same party (Reingold & Harrell 2010), and in the eyes of the electorate partisanship matters more than gender (Hayes 2011), but the political outcomes of female politicians are not affected by their partisanship (Ferreira & Gyourko 2014). In this paper I can only respond to the question of whether it matters that the female councilor is representing a major party or a local movement. I find that representing a major party, with its clear political ideology, rather than a local movement concentrated on running the municipality efficiently, does not matter.

Inspired by the findings that gender quotas seem to be effective after they are abolished (De Paola et al 2010, Bhavnani 2009) I check whether electing an additional female councilor has a long-term effect. I do not observe a statistically significant influence of an additionally elected female candidate on female political participation two elections ahead. The possible reason for that is the low number of observations and hence low predictive power. With less than 300 observations



the point estimates remain negative and economically large, though not statistically significant.

The paper proceeds as follows. I first describe the election process in the Czech Republic. I then comment on my empirical strategy. The data description follows. Finally, I check whether the necessary RDD assumptions hold and present the results, as well as robustness checks and minor extensions.

## 2 Institutional background

Municipalities are the lowest level of the political system in the Czech Republic, with regional and central levels above. There are more than 6,000 municipalities in the country, and more than 4,000 of those have fewer than 10 councilors on the councils.

Municipal elections are held in all the municipalities at the same time every 4 years. Recently, elections took place in 2002, 2006, 2010 and 2014. The ballots on these elections include lists of candidates (slates) representing various political parties, or slates of independent candidates who decided to create a local movement, usually with the purpose of participating in the coming elections. There tends to be more than one local movement in a given municipality and year. It is also common for two or more parties to submit a common slate. Independent candidates, as an alternative to creating a local movement, often join a particular party slate for the elections.

The number of votes each voter can allocate to the candidates is equal to the number of seats to be filled in the council ( $n$ ). Voters do not have to select one particular party (though they can); instead they can select candidates from different slates. If one party is selected, then each of the first  $n$  candidates from the slate gets a vote. If  $m < n$ , candidates from different slates and one party are selected, then each of the  $m$  selected candidates gets a vote, as do each of the first  $n - m$  candidates from the selected party slate. The final ranking of the candidates depends on their initial position on the slate, the number of votes cast for each of the candidates as well as for the party slate that the candidate represents. Candidates with a share of

votes 10 % higher than the average share per candidate on the slate can move higher inside the slate and increase their probability of winning a mandate. Mandates are allocated only to those slates which reach the adjusted 5 % threshold of all votes cast in the municipality.

The allocation of the mandates is executed according to d'Hondt's method (see Appendix A). The main feature of this method is as follows. All the candidates who participate in the process of allocation of mandates are assigned a number, the so-called Share, equal to the number of votes cast to their slate over the final position of the candidate inside his/her slate. After that the candidates are ranked from highest to lowest according to these Shares, and the first  $n$  candidates are elected. In close elections the parties are not able to predict precisely how many candidates from their slate will obtain a mandate, neither can they know in advance which candidate will be marginal. This method of mandates allocation allows me to observe not only the elected candidates, but also how far each unelected candidate was from being elected. Most importantly, I observe the marginally unsuccessful candidates and can calculate the winning margin of the marginally victorious candidates. The victory margin can be calculated as a difference between the Shares of the marginally successful and marginally unsuccessful candidates.

After the council is elected, the members of the council elect the board, the mayor and the deputy from the council members. In municipalities with fewer than 10 council members only the mayor and the deputy (in the smallest municipalities only the mayor) are elected, become full-time employees of the municipality and receive a salary. The remaining council members participate in monthly or bi-monthly meetings (and are compensated with a symbolic payment). Being elected as a mayor or deputy means quitting the current job for the term of office<sup>8</sup>. It is important to note that, if men are more likely to be the primary bread winners, their career could suffer from a 4-year break, while if women are more likely to be employed locally as teachers or similar, a 4-year break is easier with this type of employment. At the same time, the salary of a council leader is not likely to be significantly lower than other local salaries, but is likely to be lower than what could be earned by working in a nearby city. Serving as a council member and potentially

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<sup>8</sup>The current employer is obliged to employ the person after the Mayor/Deputy term is over.

as a mayor or a deputy is therefore likely to be more attractive to women than men<sup>9</sup>.

In small municipalities, over 70% of the participating candidates do not belong to any party and report themselves as independent candidates. This suggests that at the municipal level, the local reputation of candidates is more important than political affiliation. This is especially characteristic of the small municipalities with fewer than 10 council members (fewer than 600 inhabitants).

### 3 Empirical strategy

The mandates allocation mechanism in the Czech municipal elections allows me to apply a Regression Discontinuity design (RDD). This design has been widely used in the recent economics literature (for example, Lee 2008, Cunat et al 2012) and also by researchers analysing elections data (Bhalotra et al 2013, Brollo & Troiano 2013, Broockman 2014, Eggers 2011, Ferreira & Gyourko 2014). RDD allows estimation of the local treatment effect. The assumptions are not strict and can be partially tested.

The local RDD is based on estimating the local treatment effect using the observations which are close to the cut-off point of the assignment to treatment variable. The required assumption is that being treated or not for those observations that are around the threshold is random and not directly manipulated by the agents. The assumption can be tested by comparing the density of cases around the cut-off point. It is also assumed that the agents are not different in terms of observable and unobservable characteristics. This assumption can be tested by comparing observable characteristics of the agents that are on the different sides of the cut-off point; the observed co-variables have to be similar for these observations. The unobserved co-variables cannot be tested, but are assumed to be similar once the observed co-variables prove to be so. Controlling for the continuous assignment to the treatment variable or its polynomial is a common practice while estimating the treatment effect. This allows me to account for how close the agents are to being elected, and

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<sup>9</sup>In the municipalities with fewer than 10 council members there are 20% more slates headed by women. The head of the slate is likely to become a Mayor or a Deputy if the party collects a majority of votes.

therefore treated.

In my study I want to estimate the effect of an additional woman elected to a council, the treatment, on female political participation. The empirical strategy of my study therefore relies on the assumption that the election of the marginal candidate is a random draw from two candidates: one who won the mandate (the so-called marginal winner) and another who follows the last-elected candidate in the final ranking (the marginal loser). Municipalities where the two marginal candidates are of different gender are therefore exposed to a different treatment in terms of the council gender composition. At the same time the source of the difference in the treatment comes from a quasi-experiment and is not driven by endogenous municipality characteristics, such as gender preferences.

The assignment to treatment variable can be constructed from the votes cast for the party or the local movement slate. As described in the Institutional framework section and in Appendix A, mandates are allocated to the slates based on the total votes cast to the slate. Within the slate the allocation of mandates is based on the initial ranking of candidates, as well as the votes cast for each candidate separately. Therefore, the victory margin is a function of the votes cast to the slate, and the final ranking of the candidates is a function of the votes cast to the candidates. Details of the victory margin calculation can be found in the Data description section.

To estimate the council gender composition effect on female political participation the following model is estimated. Only the municipalities where a female and a male candidates compete for the last seat are used:

$$Outcome_i = \alpha D_i + \beta g(VictoryMargin_i) + \epsilon_i \quad (1)$$

where  $Outcome_i$  is a municipality-specific outcome,  $D_i$  - treatment indicator (1 if the last-elected candidate is female, 0 if male) and  $g(VictoryMargin_i)$  - linear function of the assignment to treatment variable, that allows for a different slope to the left and to the right sides of the cut-off. The reason I do not include a higher order polynomial is that I focus on a narrow victory margin [-2,2].

The model is estimated using the least squares estimation technique, with council

size and election year fixed effects, as well as robust standard errors.

The variable of interest is the treatment indicator -  $D_i$ . The respective hypothesis can therefore be formulated as follows:

$$\begin{aligned} H_0 : \alpha &= 0 \\ H_A : \alpha &\neq 0 \end{aligned} \tag{2}$$

The same model is used for two purposes: 1) to estimate the treatment effect on female political participation in the elections in time  $t$ , which follow the elections in time  $t-1$  where the treatment happened; 2) to check the data for the co-variate balance, i.e. to verify whether RDD assumptions hold. The treatment effects are presented in Table 6, the co-variate balance check is in Table 5. Both are discussed after the Data description section.

## 4 Data description

For this study I use the Czech municipal elections data provided by the Czech Statistical Office. The data is publicly available on the Czech Statistical Office web site<sup>10</sup>. The data on the four recent elections are available and incorporated in the study: elections in 2002, 2006, 2010 and 2014.

The data-set on each of the elections presents the following candidate-level information: name, surname, age, education<sup>11</sup>, occupation<sup>12</sup>, political affiliation and

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<sup>10</sup>The Czech Statistical Office website: <https://www.czso.cz/>.

<sup>11</sup>Education is not consistently reported, only 12% of all candidates in the municipalities of interest have either the pre- or post-name title present, and only 8% of the candidates do in the municipalities of interest on the narrowest margin. In the Czech Republic it is common to use education titles in most official documents. There is no reason to believe that some candidates do not report their title and it is therefore safe to assume that the lack of a title means no tertiary education.

<sup>12</sup>Occupation is also not consistently reported. On the narrowest margin there are very few major groups of occupations, for example, retired or own business. An indicator variable of the marginal candidate being involved in one of these occupations is not significant and does not influence the main result. An indicator variable of the marginal candidate being involved in any occupation does not give an insight into results either.

initial ranking of the candidate on the slate. The elections outcomes information includes the number of votes each candidate received, the place of each candidate according to the final ranking of candidates inside the slate, the order of candidates in the mandates allocation, and an indicator of whether a candidate was elected or not. The data for separate elections has the same structure, except for a few variables which are missing in some elections and had to be recovered from other existing information.

The gender indicator was missing for three out of the four elections and had to be recovered almost manually using the names of the candidates. It was possible to determine the gender of most of the candidates from their names. In those few cases<sup>13</sup> of names that are universal for both genders the surnames and occupation of the candidate were used to determine gender.<sup>14</sup>

In the earlier data-sets from elections, the final ranking of candidates inside each slate was missing and had to be calculated using votes cast by each candidate. Further, the procedure of allocation of mandates was replicated to find the final ranking of all candidates and calculate the victory margin among the two marginal candidates. The victory margin is defined as a difference between the so-called Shares of the two marginal candidates (see Appendix A for the calculation mechanism). The victory margin variable is created such that it is positive for the cases where a female candidate was marginally elected against a male candidate, and negative in the reverse cases. The cases where the victory margin is 0 are resolved using the variable indicating whether a candidate won a mandate or not, and are very rare.<sup>15</sup>

To create a pooled data-set consisting of elections in separate years I performed the following steps. First, I excluded the municipalities that had identical observations - candidates with identical names, surnames and age in the same municipality<sup>16</sup>. Next I merged separate elections data on the municipality ID, name, surname and age<sup>17</sup> of each candidate: the municipalities treated in time  $t-1$  are merged into

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<sup>13</sup>There are 6 such cases in 2006, 2 in 2010 and 8 in 2014.

<sup>14</sup>The majority of Czech surnames have gender-specific ending; the word endings of professions are also different for men and women.

<sup>15</sup>There are 26 such cases in 2002, 18 in 2006 and 22 in 2010.

<sup>16</sup>There are 30 such municipalities in 2002, 14 in 2006, 10 in 2010 and 26 in 2014.

<sup>17</sup>I do not allow for any discrepancy in age (+/- one year) since elections are held at the same time of the year - 1-2.11.2002, 20-21.10.2006, 15-16.10.2010, 10-11.10.2014.

time  $t$  data-set. For example, the municipalities treated in 2002 are merged into the 2006 data-set and analogically the remaining years - 2006 into 2010 and 2010 into 2014. As a result, I end up with three pairs of elections that I pull together. I keep an indicator of each elections pairing in order to control for it in the model estimation.

Further, I drop observations that either look troublesome or inconsistent. These are the observations for the following types of municipalities: 1) those that have a missing number of mandates to be allocated<sup>18</sup>; 2) those that have a number of mandates to be allocated equal to 0<sup>19</sup>; 3) those that have a different number of mandates to be allocated in the two consequent elections<sup>20</sup>. The reason for the latter might be either an increase in the number of inhabitants or some possible structural change. The distribution of the excluded municipalities across the treated and the control groups does not indicate any systematic pattern and therefore does not trouble the analysis.

For the purpose of my empirical strategy, I select those municipalities, or electoral districts (EDs) where the competition for the last seat in the council was between a male and a female candidate. This reduces my sample to a third of the original sample (approximately 6,000 municipalities instead of 18,000 pooled municipalities from the different years). When estimating the model, I focus on yet smaller samples where I observe the truly quasi-random variation in the treatment among the municipalities. In the sample closest to the cut-off point I am left with only 345 observations (Panel E in Table 1).

The small municipalities in the sample of greatest interest (Panels D and E in Table 1) are different from the larger ones (Panels A and B). On average, they are twice as small both in terms of council size (number of seats to be allocated) and number of candidates who run in the election. At the same time they are not very different in the proportion of women in the pool of all candidates (around 30% in all the sample specifications). The average number of slates - a political competition indicator, is similar across municipalities as well.

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<sup>18</sup>23 out of 6565, 10 in the control group and 13 in the treated group.

<sup>19</sup>4 out of 6565, 3 in the control group and 1 in the treated group

<sup>20</sup>449 out of 6565, 242 in the control group and 234 in the treated group

[Table 1 about here.]

The need to limit the sample to municipalities where the competition for the last seat was between two candidates of different gender unfortunately leaves me with a non-representative sample. In the municipalities where the competition for the last seat was between two candidates of the same gender (usually between two male candidates) there are fewer female candidates to vote for, they are placed slightly worse and therefore receive fewer votes (Table 2). The number of elected female candidates, excluding the marginally elected female candidate, is however very similar even on the narrowest margin. The full summary statistics tables for the excluded municipalities are in Appendix B.

[Table 2 about here.]

Tables 3 and 4 present the evolution of female political participation over the years studied in all municipalities, and in small municipalities respectively. Both tables show that the number and share of both participating and elected female candidates in the pool of candidates increased over the years, and their positioning on slates improved too. This pattern could be of concern if I had found a positive effect of the treatment. In that case one could argue that the finding is simply the result of the overall trend. As will be presented below, the estimated treatment effect is negative and the overall trend towards higher female political participation in the local elections cannot be causing it.

[Tables 3 and 4 about here.]

## 5 RDD assumptions: co-variate balance check

Before discussing the results, I present the RDD assumptions tests. First, the treated and the control municipalities are not different in the number of inhabitants, number of children born per year (Panel A of Table 5) and in the local budget income and spending per inhabitant<sup>21</sup> (Panel B of Table 5). Only the capital income per inhabitant is significant, at 10% in two specifications, but, most importantly, not

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<sup>21</sup>The outcome variables here are two-year averages: the year of the elections and the previous year.



on the narrowest margin. The electorate in the treated municipalities does not have different preferences towards major parties<sup>22</sup> than that in the control municipalities (Panel C of the Table 5).

The median age of all candidates, all female candidates, elected candidates and elected female candidates is not different for the two groups of the municipalities on the narrowest margin<sup>23</sup> (Panel D of the Table 5). The education level of all candidates, female candidates, elected candidates and elected female candidates is also not different<sup>23</sup>.

In the elections of treatment (in time  $t-1$ ) the treated and the control municipalities had a similar number of the participating female candidates in the pool of all candidates, as well as the number of elected female candidates, if I exclude those who were elected marginally (Panel F of the Table 5). However, women seem to have been placed better within their slates and have therefore received a higher share of votes.<sup>24</sup> The difference seems to be present in those specifications where I expect selection to be present. Most importantly, the last specification, with the narrowest victory margin, shows that the treated and the control municipalities are not significantly different from each other in the placement of female candidates and the share of votes those candidates receive, as well as the number of participating and elected women.

The marginal winners and losers seem to be representing the slates of the same length on average and are not more likely to be on the major party's slate<sup>22</sup> (Panel G of the Table 5). The marginal candidates are not different in their age or education level. The slates the marginally victorious female and male candidates represent have, on average, the same number of other candidates elected, as well as the same number of female candidates elected and the median position women occupy on the slates. There is only one interesting observation to make. The slates that the marginally winning women represent have a higher share of women than the

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<sup>22</sup>Major parties include KDU-CSL, SZ, CSSD, KSCM, ODS and TOP09. These are the parties that in each of the four municipal elections had more than 1,000 candidates across municipalities. CSSD, ODS, KDU-CSL and KSCM are also stably present in the Czech Parliament.

<sup>23</sup>I exclude the two marginal candidates. In the case of elected candidates, I exclude the marginally elected candidate.

<sup>24</sup>Number of votes that were cast to all female candidates over total number of votes cast to all the candidates in the municipality.

slates that are represented by the marginally winning male candidates. Meanwhile, the same is true for the share of women on the slates of the marginally losing candidates. It seems to be the case that in the small municipalities there are slates that gather women together. This does not however pose a threat to identification. The opposite case, where the marginally winning male candidates represent slates with more women, would be problematic. Then one could claim that though a man is elected, he is likely to be supporting female issues, as his party is. In my case it is not clear and rather unlikely that the women from the women-friendly slates are different in one way or another from the women that represent other slates.

[Table 5 about here.]

Figure 1 shows the density of cases around the cut-off point and presents evidence consistent with no manipulation happening around the cut-off. The distribution resembles a uniform distribution with no clear jump in the number of observations from any of the two threshold sides.

[Figure 1 about here.]

## 6 Main results

Table 6 presents the main results of the paper. The specification of interest is the last column, where I focus on small municipalities and a narrow victory margin.<sup>25</sup> The first outcome is the raw number of female candidates across all slates in a given municipality (Panel A). In the first 2 columns the coefficient on treatment is positive. This implies that having an additional female candidate elected to be a council member in time  $t-1$  results in more female candidates in the next elections in time  $t$ . However, this is likely to be driven by selection - a female candidate was elected to take the last seat in the council with a strong victory margin either because the electorate is pro-women, or due to other reasons that are not compatible with randomness; hence, the higher number of female candidates in the following elections. The last column of the table shows a negative sign of the

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<sup>25</sup>The effect is also present with no limitation on the Council size. Estimating the global RD gives a similar result. The estimation output is available from the author upon request.

coefficient: on average, having a female candidate elected in the elections in time  $t-1$  results in approximately 1 female candidate less in the next elections in time  $t$ . The treatment effect remains significant on the narrow margin once I exclude the marginally winning or losing women (depending on the municipality) from the number of participating female candidates (Panel B). The last outcome - the number of newly participating female candidates (Panel E), reveals that the result is driven by the newly participating candidates.<sup>26</sup> The newly participating female candidates are those who did not participate in the elections in time  $t-1$  when the treatment happened but participate in the following elections in time  $t$ . With a mean number of 2.6 newly participating female candidates in the sample municipalities for the specification of interest, the treatment effect results in at least 0.5 fewer new female candidates. This drop in the number of new female candidates means that the participation rate of new female candidates is at least 3 percentage points, or 18%, lower in the municipalities that were exposed to more female councilors. At the same time there is no difference in the positioning of all or new female candidates in both treated and control municipalities. The corresponding graphs are presented in Appendix C.

[Table 6 about here.]

Though the results are not sensitive to the exclusion of the larger municipalities, I focus on the small municipalities with less than 10 councilors. In these communities inhabitants are more likely to know their leaders. Also, an additional female councilor changes the gender composition of the council noticeably.

In Table 7 I present results for the same estimation as in Table 6, but without controlling for the victory margin in one specification and without controlling for both the victory margin and fixed effects in the other. The negative effect on the newly participating female candidates is present in the specification with the narrowest victory margin when not controlling for the victory margin, but doing so for fixed effects. Not controlling for both the victory margin and fixed effects leaves the main effect very close to being significant with the p-value=0.109. The point estimate remains negative.

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<sup>26</sup>I also tried as outcomes the number of female candidates who participated again, the median position of all female candidates and new female candidates on slates. They were not shown to be influenced by the treatment.

[Table 7 about here.]

Since the RDD estimates the local treatment effect rather than the average treatment effect, the results apply to a particular category of municipalities. Compared to the municipalities where the two marginal candidates are of the same gender, the municipalities with the two different gender marginal candidates have relatively more women among candidates. Those women are better placed. The number of elected women is not different. The difference in the two types of municipalities is therefore either in the level of female political activity, or in the stability of female political participation. My results apply to the municipalities that have higher competition among women: there are more female candidates and they are positioned relatively well.

My findings differ from the evidence documented in the literature to date. They are likely to differ from the evidence of the positive influence of electing women in India because India is less advanced in terms of female political participation. There, women's share in parliament is not higher than 13%<sup>27</sup> (after elections in 2014) and labor force participation did not reach 30% in the years before 2014<sup>28</sup>. According to the European Commission's report on women and men in leadership positions in the European Union, in 2011 the Czech Republic was close to, yet below the European average of female participation in local politics (27% vs 32% on average in the EU - see Figure 2). At the same time the full-time employment rate for women reaches 60% in 2014 - one of the highest in Europe<sup>29</sup>. The evidence suggests that the Czech Republic is rather advanced in terms of both female political participation and female economic involvement.

[Figure 2 about here.]

The difference between my findings and the positive effect documented in Italy (De Paola et al 2010) and Switzerland can also be explained with the similar reasoning. The results for Switzerland hold only shortly after the introduction of women into politics (Gilardi 2015). In Italy before the quota was introduced women used to occupy approximately 7% of local council seats (De Paola et al 2010). As sum-

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<sup>27</sup>Source: Inter-Parliamentary Union: <http://www.ipu.org/wmn-e/classif.htm>

<sup>28</sup>Source: The World Bank: <http://databank.worldbank.org/data/>

<sup>29</sup>Source: European Union Labour Force Survey, <http://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey>.

marized in Tables 3 and 4 women are holding nearly 30% of seats in the Czech local councils. The Czech Republic is therefore more advanced in female political participation than Italy in the 1990s and early 2000s and than Switzerland in the 1970s.

Though the direct negative effect of the female incumbents' presence on other women's political participation has not been documented to date, several studies demonstrate that having a female representative can cause either no or a negative effect on other women's interest in politics. The experimental evidence provided by Wolak (2015) shows that women are not more willing to vote when they see more women on ballots. Clayton (2015) finds that in the municipalities that had mandates reserved for female politicians in Lesotho, women tend to be less interested in politics. In the Czech Republic, the negative influence seems to extend to decisions of potential female politicians.

## **7 Robustness checks & Extensions**

### **7.1 Robustness checks**

In this section I demonstrate that my findings are not dependent on the election process in the Czech Republic. I show that parties' decisions on candidate placement inside slates does not drive the results. I also show that there is likely to be no other characteristic of the marginal candidates apart from gender that influences other women's participation because the result holds if I control for the electorate's favourites.

As described in the Institutional background section, in the Czech Republic parties can decide the initial composition and positioning of candidates on their slates. Though the final ranking of the candidates depends on voters, in some cases it might not be affected by the voting and remains as the party composed it before the elections. This could lead to a threat to identification, since it would mean that the gender of the marginally elected candidate was likely influenced by the party.

To make sure the main result is not driven by the party's decisions I perform the

following test. I include the two additional indicator variables in the main model: 1) indicator that the two candidates represent the same slate; 2) interaction of this indicator with the treatment variable (Table 12 in Appendix D).

Among the municipalities with fewer than 10 mandates to be allocated, approximately 30% have the two marginal candidates representing the same slate (1138 out of 4257); in the sample of the municipalities where the victory margin between the two marginal candidates is  $[-5;5]$ , the share of municipalities with the two marginal candidates representing the same slate reduces to 10% (89 out of 955).<sup>30</sup> With the introduction of the new variables the main result remains stable. The concern regarding the party's decisions on the candidate placement is therefore likely not to be valid.

Second, from the Institutional background section we also know that voters can influence the final positioning of candidates inside slates and therefore in the sequence of mandates allocation. What could follow is that the marginal candidates happened to be marginal as a result of the extensive voting for them. They received many votes, moved higher in the mandates allocation and received the last mandate. In such a case the random election of the marginal candidate could be under question. One could argue that the candidate was elected due to the electorate's preference towards the candidate.

To test whether that is the case or not I do the following. I first define candidates that received 20% or more votes than on average on their slate as high jumpers (they comprise 1/3 of all jumpers). I then create two indicator variables: 1) an indicator that the marginal winner in the municipality is a high jumper; 2) interaction of this indicator with the treatment variable. The main effect (Panel C of Table 13 in Appendix D) remains negative and significant, whereas the interaction indicator is not statistically significant. Separately I also estimate the model excluding the municipalities with the high jumpers<sup>31</sup>. When I exclude the marginally winning jumpers the main effect is negative but not statistically significant, due to the low number of observations (150). Once I remove the limitation on the council size and the number of observations increases, the main effect is significant again. This

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<sup>30</sup>On the narrowest margin  $[-2;2]$  there is only one such municipality out of 345, which is the reason to exclude the last specification from the table.

<sup>31</sup>The estimation output is available from the author upon request.

indicates that the main result is not driven by the marginal candidates who are likely to be favourites of the respective electorate.

## 7.2 Successful female councilors and the new female candidates

The literature documents that gender quotas, and as a result a higher number of women elected to councils can lead to both higher (Baltrunaite et al 2014) and lower average quality of councilors (Deininger et al 2015). If the marginally elected female candidates are of poorer political ability the main negative effect on the number of newly participating female candidates could be explained by the disappointment of parties and the electorate in the marginal candidate. I check whether that is the case.

First I test whether the main result is driven by the municipalities where the marginally winning female candidate runs again. Figure 3 shows that the number of new women is lower in the treated municipalities (1 and 2) than in the controls (3 and 4) - the main result from Panel E of Table 6. The number of newly participating female candidates is lower in the municipalities where the marginally winning female candidate runs again, compared to the municipalities where the marginally winning female candidate does not participate again. The difference however turns out not to be statistically significant (column 1 of the Table 8), which means that the effect is the same for both groups of municipalities.

Further, I split the municipalities with marginally winning female candidates into three groups: those where the marginally winning female candidate runs again and wins with a stronger than marginal victory margin (victory margin  $\geq 5$ ); those where the marginally winning female candidate runs again and is marginal again (victory margin in the range  $[-5;5]$ ), and those municipalities where the marginally winning female candidate runs again and loses with a weaker than marginal loss margin (loss margin  $\geq 5$  or victory margin  $\leq -5$ ). In the municipalities where the marginally winning new female councilor was successful such that in the next elections she is elected again non-marginally, there are yet fewer newly participating female candidates (column 2 of the Table 8).

The successful new female councilors who run again are successful because they receive a higher share of votes in the municipality than other repeatedly running new female councilors (column 3 of Table 8). At the same time they are not placed better for those elections (column 5 of Table 8). Also, their slates seem to profit from their presence: the successful female candidate receives more votes compared to other candidates in the municipality, but not compared to the other candidates on her slate (column 4 of the Table 8).

[Table 8 about here.]

[Figure 3 about here.]

The fact that the majority of repeatedly running marginal female candidates are reelected means that those female councilors were likely successful in performing their duties. The observation shows that it is likely not the case that the marginally elected candidates are of poorer quality than the non-marginally elected candidates, the electorate is disappointed with them and as a result fewer new female candidates are present on slates in the next elections. The finding is in line with the papers documenting that the quality of women elected as a result of quotas is not lower (Baltrunaite et al 2014, Weeks & Baldez 2015, Anzia & Berry 2011).

### **7.3 Does partisanship matter?**

Political parties play an important role for potential politicians as a channel to become involved in politics (Reingold & Harrell 2010). At the same time the electorate may pay higher attention to the political affiliation of candidates than to their gender (Hayes 2011). In my case an important question is whether the political affiliation of the marginally elected candidates is not the true cause of the main effect I observe.

Unlike in the United States and other countries, there are several strong parties at the national and regional levels in the Czech Republic. Moreover, on the local level these major parties often play little role, since they are not involved extensively. On the municipal level the so-called local movements tend to be more active. The distinguishing feature of the local movements from the major parties is the absence of a strict party ideology. Local movements are groups of local candidates who



share a common view on how their municipality should function and rarely on how politics in general should work. In addition, a local movement is often created with the purpose of participating in the upcoming elections. In the next elections, the local politicians are likely to reshuffle into new local movements. It is therefore difficult to track local movements from one election to another.

Given that the difference between local movements and major parties is clear and the difference between separate local movements is less so, the test I perform is designed to check whether affiliation of the marginally elected candidates with a major party matters. The complicating factor in this analysis is the small number of such marginally winning candidates: 10 cases with the marginally winning female candidate and 9 - with the male candidate on the narrowest margin.

Adding two indicator variables to the main model - the indicator that the marginally elected candidate represents a major party and its interaction with the main treatment variable - do not affect the main result at the lowest margin (Table 14 in Appendix E). The fact that the candidate represents a major party seems to matter in the case that the candidate is male. When the marginally winning candidate is a female candidate from a major party, the main effect is slightly stronger than if the marginal female candidate represents a local movement. Overall the affiliation with a major party does not seem to have a serious effect on the outcome.

It is also important to note that the fewer new female candidates are characteristic to the slates of the local movements, as they are prevalent in the small municipalities on the narrow margin. There are only 21 municipalities where the number of new women on major parties' slates is non-zero.

## 7.4 Long-term influence

The question whether policy interventions that are supposed to address low female representation work after they are abolished is present in the literature. De Paola et al (2010) and Bhavnani (2009) find that female representation can be addressed with temporary quotas. I check whether the negative effect on the number of newly participating female candidates persists, i.e. whether it is also present in the elections in the time  $t+1$  after the municipality was treated as a result of the elections

in the time  $t-1$ .

To test the long-term effect of an additional female candidate election I first merge the 2002 elections data into the 2010 elections data and 2006 into 2014. I exclude the two marginal candidates in the elections in 2002 from the candidate pool in the elections in 2010 and the marginal candidates in 2006 from the elections in 2014. I define new female candidates in 2010 as those who did not participate in the elections in 2006 and in 2014 as those who did not participate in the elections in 2010.

The estimated coefficient of the treatment indicator is negative but not statistically significant even without limitation on the council size (Table 15 in Appendix F). Either the negative effect on the number of new female participants does not persist in the longer run, or, alternatively, the coefficient is not significant due to the low number of observations and hence low predictive power.

## 8 Conclusions

In this paper I analyse the Czech municipal elections data with the purpose of understanding how female political participation is affected if an additional woman is elected to the council. I estimate the local RDD using a narrow victory margin between a male and a female candidate. I find that in the municipalities where a female candidate was elected instead of a male candidate, fewer women participate in the following elections. Among all women the new female candidates are affected. The participation rate of the new female candidates decreases by at least 3 percentage points, or 18%. The effect is even stronger in the municipalities where the marginal female candidate participated in the elections again and was reelected with a higher than marginal victory margin.

The results are robust to party's decisions and the preferences of the electorate. The elections system in the Czech Republic, and the data, allow me to test whether the party decision to place the candidates in a particular order inside slates is responsible for the main result. I am also able to test whether the marginal candidates were the electorate's favourites, which could threaten identification. The empirical

evidence goes against the two concerns.

To the best of my knowledge, the paper is the first evidence of how the gender of a local council member can affect female political participation in a society where women occupy a non-negligible share of seats in councils (close to 30%). The study contributes to the literature by showing no evidence in support of female role models in local politics. I also show that the affiliation of a female candidate with a major party does not matter to the potential female politicians in local politics in the Czech Republic. I don't observe a long-term effect of electing an additional female councilor.

The mechanism of other women's negative response to observing an additional female councilor remains unclear. I am unfortunately not able to ascertain, whether the party leaders decide not to include new women on their slates or whether the potential female politicians decide not to run. Nor can I differentiate between alternative reasons for the decision irrespective of which side made it: we might be observing fewer women due to competition aversion or because either women or parties find that female representation in a community is sufficient with the new female incumbent. While further research is needed to reply to these questions, my analysis reveals that more female politicians can result in a negative side effect that the policy makers should take into account. In societies like the Czech Republic, where nearly 30% of seats are given to women in a competitive election, an additional female councilor, instead of triggering a spillover can lead to a lower number of other women involved in local politics. It is therefore unlikely that gender parity can be reached naturally in these communities. If reaching gender parity is a goal, a policy intervention such as a gender quota is needed.

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Table 1: Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.
Panel A: All EDs				
Number of candidates in ED	33.868	50.629	5	971
Number of female candidates in ED	10.639	17.365	0	325
Number of new female candidates in ED	6.491	12.39	0	280
Number of seats in a council	9.722	4.68	5	55
Number of slates in ED	4.34	3.627	1	39
Number of slates in ED in previous elections	4.38	3.647	1	39
N			18938	
Panel B: EDs of interest				
Number of candidates in ED	37.543	53.081	5	703
Number of female candidates in ED	12.239	18.388	0	256
Number of new female candidates in ED	7.318	13.016	0	202
Number of seats in a council	10.022	4.87	5	47
Number of slates in ED	4.469	3.507	1	28
Number of slates in ED in previous elections	4.653	3.616	1	38
N			6089	
Panel C: EDs of interest, mandates<10, victory margin [-20;20]				
Number of candidates in ED	15.438	9.960	5	81
Number of female candidates in ED	4.983	3.982	0	35
Number of new female candidates in ED	2.775	2.944	0	25
Number of seats in a council	7.296	1.194	5	9
Number of slates in ED	4.355	3.924	1	24
Number of slates in ED in previous elections	4.794	4.198	1	25
N			2965	
Panel D: EDs of interest, mandates<10, victory margin [-5;5]				
Number of candidates in ED	14.726	9.18	5	81
Number of female candidates in ED	4.757	3.771	0	35
Number of new female candidates in ED	2.604	2.714	0	21
Number of seats in a council	7.255	1.157	5	9
Number of slates in ED	5.209	4.301	1	24
Number of slates in ED in previous elections	6.206	4.566	1	25
N			955	
Panel E: EDs of interest, mandates<10, victory margin [-2;2]				
Number of candidates in ED	15.446	8.882	5	54
Number of female candidates in ED	4.922	3.657	0	19
Number of new female candidates in ED	2.617	2.637	0	15
Number of seats in a council	7.33	1.159	5	9
Number of slates in ED	5.487	4.408	1	21
Number of slates in ED in previous elections	6.635	4.626	1	25
N			345	



Table 2: Comparison of municipalities of interest (marginal candidates of different gender) with the excluded municipalities (marginal candidates of the same gender)

Variable	Mean	Std. Dev.	Min.	Max.
<b>All EDs</b>				
<i>EDs with marginal candidates of different gender; Nr. of EDs 6089</i>				
Number of female candidates	11.173	15.52	1	188
Number of elected female candidates (excl. marginal)	2.253	1.713	0	13
Median position of female candidates on slates	0.305	0.195	0	0.889
Share of votes cast to female candidates	0.301	0.117	0	0.91
<i>EDs with marginal candidates of the same gender; Nr. of EDs 9577</i>				
Number of female candidates	10.092	15.762	0	288
Number of elected female candidates (excl. marginal)	2.289	1.752	0	18
Median position of female candidates on slates	0.289	0.213	0	0.889
Share of votes cast to female candidates	0.246	0.13	0	1
<b>Mandates&lt;10, victory margin [-20;20]</b>				
<i>EDs with marginal candidates of different gender; Nr. of EDs 2965</i>				
Number of female candidates	4.891	3.626	1	46
Number of elected female candidates (excl. marginal)	1.605	1.146	0	6
Median position of female candidates on slates	0.235	0.209	0	0.889
Share of votes cast to female candidates	0.306	0.135	0	0.91
<i>EDs with marginal candidates of the same gender; Nr. of EDs 4848</i>				
Number of female candidates	3.867	3.669	0	35
Number of elected female candidates (excl. marginal)	1.631	1.221	0	7
Median position of female candidates on slates	0.225	0.231	0	0.889
Share of votes cast to female candidates	0.232	0.149	0	1
<b>Mandates&lt;10, victory margin [-5;5]</b>				
<i>EDs with marginal candidates of different gender; Nr. of EDs 955</i>				
Number of female candidates	4.812	3.498	1	46
Number of elected female candidates (excl. marginal)	1.599	1.14	0	6
Median position of female candidates on slates	0.182	0.208	0	0.786
Share of votes cast to female candidates	0.306	0.135	0.014	0.777
<i>EDs with marginal candidates of the same gender; Nr. of EDs 1551</i>				
Number of female candidates	3.801	3.663	0	25
Number of elected female candidates (excl. marginal)	1.596	1.247	0	6
Median position of female candidates on slates	0.168	0.217	0	0.889
Share of votes cast to female candidates	0.227	0.149	0	0.806
<b>Mandates&lt;10, victory margin [-2;2]</b>				
<i>EDs with marginal candidates of different gender; Nr. of EDs 345</i>				
Number of female candidates	5.22	3.633	1	32
Number of elected female candidates (excl. marginal)	1.588	1.064	0	6
Median position of female candidates on slates	0.184	0.211	0	0.786
Share of votes cast to female candidates	0.304	0.127	0.046	0.687
<i>EDs with marginal candidates of the same gender; Nr. of EDs 585</i>				
Number of female candidates	3.961	3.917	0	25
Number of elected female candidates (excl. marginal)	1.591	1.234	0	6
Median position of female candidates on slates	0.158	0.208	0	0.833
Share of votes cast to female candidates	0.223	0.147	0	0.806

Note: Municipalities with two marginal female candidates comprise approximately 11-12% of the excluded sample (narrow victory margin).

All co-variates are as of elections of treatment.

Table 3: Summary statistics: female political participation evolution

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min.</b>	<b>Max.</b>
Year 2002; Nr.of EDs 6319				
Number of female candidates in ED	8.204	13.822	0	245
Share of female candidates in ED	0.253	0.134	0	0.8
Number of elected female candidates in ED	2.219	1.702	0	14
Share of elected female candidates in ED	0.229	0.154	0	0.857
Median position of female candidates on slates	0.256	0.215	0	0.909
Year 2006; Nr.of EDs 6350				
Number of female candidates in ED	9.321	15.263	0	475
Share of female candidates in ED	0.28	0.136	0	1
Number of elected female candidates in ED	2.444	1.775	0	18
Share of elected female candidates in ED	0.254	0.159	0	1
Median position of female candidates on slates	0.288	0.21	0	0.889
Year 2010; Nr.of EDs 6353				
Number of female candidates in ED	11.042	17.56	0	288
Share of female candidates in ED	0.298	0.133	0	1
Number of elected female candidates in ED	2.563	1.786	0	18
Share of elected female candidates in ED	0.269	0.16	0	1
Median position of female candidates on slates	0.337	0.206	0	0.889
Year 2014; Nr.of EDs 6359				
Number of female candidates in ED	11.777	20.466	0	325
Share of female candidates in ED	0.309	0.135	0	1
Number of elected female candidates in ED	2.637	1.807	0	19
Share of elected female candidates in ED	0.278	0.161	0	1
Median position of female candidates on slates	0.341	0.201	0	0.889

Table 4: Summary statistics: female political participation evolution in small EDs

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min.</b>	<b>Max.</b>
Year 2002; Nr.of EDs 4560				
Number of female candidates in ED	3.616	3.217	0	40
Share of female candidates in ED	0.244	0.146	0	0.8
Number of elected female candidates in ED	1.7	1.242	0	7
Share of elected female candidates in ED	0.228	0.166	0	0.857
Median position of female candidates on slates	0.214	0.221	0	0.889
Year 2006; Nr.of EDs 4604				
Number of female candidates in ED	4.336	3.822	0	46
Share of female candidates in ED	0.273	0.15	0	1
Number of elected female candidates in ED	1.895	1.278	0	7
Share of elected female candidates in ED	0.255	0.172	0	1
Median position of female candidates on slates	0.249	0.221	0	0.889
Year 2010; Nr.of EDs 4620				
Number of female candidates in ED	4.974	4.224	0	35
Share of female candidates in ED	0.293	0.147	0	1
Number of elected female candidates in ED	2.019	1.276	0	8
Share of elected female candidates in ED	0.274	0.174	0	1
Median position of female candidates on slates	0.308	0.224	0	0.889
Year 2014; Nr.of EDs 4636				
Number of female candidates in ED	5.109	4.332	0	38
Share of female candidates in ED	0.305	0.15	0	1
Number of elected female candidates in ED	2.092	1.288	0	8
Share of elected female candidates in ED	0.284	0.174	0	1
Median position of female candidates on slates	0.314	0.22	0	0.889

Table 5: Co-variate balance check

Model specifications					
Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
<i>Panel A. Demographic indicators</i>					
<i>(two-year average - year of elections of treatment and the previous year)</i>					
Number of inhabitants					
Additional woman	131.593 (84.716)	7.241 (11.805)	16.401 (12.405)	21.785 (20.632)	10.064 (29.619)
Number of children born per year					
Additional woman	1.634* (0.989)	-0.063 (0.140)	0.057 (0.158)	0.058 (0.265)	-0.215 (0.360)
<i>Panel B. Local budget indicators</i>					
<i>(two-year average - year of elections of treatment and the previous year)</i>					
Total local budget spending per inhabitant					
Additional woman	-160.690 (433.515)	328.272 (561.638)	252.839 (899.075)	-323.665 (1525.711)	-565.468 (2240.889)
Current local budget spending per inhabitant					
Additional woman	-186.005 (308.484)	105.458 (345.512)	-180.837 (518.661)	-461.881 (825.604)	584.047 (1344.012)
Capital local budget spending per inhabitant					
Additional woman	25.315 (251.830)	222.814 (376.591)	433.676 (626.623)	138.215 (1150.286)	-1149.515 (1533.205)
Subsidies received by the municipality per inhabitant					
Additional woman	-0.917 (325.071)	421.225 (384.619)	474.296 (585.560)	657.111 (962.582)	1115.369 (1393.034)
Local budget tax income per inhabitant					
Additional woman	-119.687 (104.442)	-188.933 (175.130)	-351.152 (259.931)	-864.356 (575.813)	-1282.322 (1059.794)
Local budget non-tax income per inhabitant					
Additional woman	4.524 (102.439)	-39.352 (134.664)	-140.156 (194.351)	59.837 (291.271)	146.137 (395.253)
Local budget capital income per inhabitant					
Additional woman	-89.747 (88.576)	-155.572 (135.014)	-428.938* (226.493)	-590.077* (332.102)	-454.011 (297.447)
<i>Panel C. Share of votes cast to major parties in the previous elections (elections of treatment)</i>					
Additional woman	0.003 (0.003)	0.005 (0.005)	-0.000 (0.006)	0.003 (0.011)	0.000 (0.017)
<i>Panel D. Median age of candidates in the previous elections (elections of treatment)</i>					

Continued on the next page

**Table 5 – continued from the previous page**

Model specifications					
Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Median age of all candidates (excluding the two marginal)					
Additional	0.347**	0.443*	0.369	-0.020	-0.829
woman	(0.156)	(0.241)	(0.395)	(0.749)	(1.136)
Median age of female candidates (excluding the marginal)					
Additional	0.430**	0.535*	0.165	0.287	0.814
woman	(0.206)	(0.324)	(0.527)	(0.960)	(1.463)
Median age of elected candidates (excluding the marginal)					
Additional	0.071	0.120	0.322	0.076	-0.815
woman	(0.174)	(0.272)	(0.448)	(0.841)	(1.247)
Median age of elected female candidates (excluding the marginal)					
Additional	0.947**	1.431*	2.219*	-0.852	-0.297
woman	(0.482)	(0.753)	(1.252)	(2.316)	(3.601)
<i>Panel E. Share of educated candidates in the previous elections (elections of treatment)</i>					
Share of educated candidates among all candidates (excluding the two marginal)					
Additional	0.004	0.003	0.005	-0.011	-0.005
woman	(0.003)	(0.005)	(0.007)	(0.012)	(0.018)
Share of educated female candidates among all female candidates (excluding the marginal)					
Additional	0.003	-0.001	0.013	-0.018	-0.016
woman	(0.005)	(0.008)	(0.012)	(0.022)	(0.035)
Share of educated candidates among elected candidates (excluding the marginal)					
Additional	0.010**	0.008	0.016	-0.003	0.009
woman	(0.005)	(0.007)	(0.010)	(0.018)	(0.027)
Share of educated female candidates among elected female candidates (excluding the marginal)					
Additional	0.008	0.006	0.029*	0.011	0.005
woman	(0.008)	(0.011)	(0.017)	(0.030)	(0.046)
<i>Panel F. Female political participation in the previous elections (elections of treatment)</i>					
Number of female candidates					
Additional	0.248	0.143	0.346	-0.360	-1.095
woman	(0.245)	(0.155)	(0.234)	(0.444)	(0.759)
Share of female candidates					
Additional	0.005	0.006	0.008	-0.008	-0.015
woman	(0.003)	(0.005)	(0.008)	(0.016)	(0.025)
Number of elected female candidates (excluding the marginal)					
Additional	0.021	0.032	0.074	-0.095	-0.041
woman	(0.042)	(0.047)	(0.075)	(0.132)	(0.183)

Continued on the next page

**Table 5 – continued from the previous page**

Model specifications					
Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Median position of female candidates on slates					
Additional woman	0.026*** (0.005)	0.028*** (0.009)	0.009 (0.014)	-0.032 (0.025)	-0.027 (0.037)
Share of votes cast to female candidates in the municipality					
Additional woman	0.013*** (0.003)	0.016*** (0.005)	0.018** (0.009)	-0.009 (0.016)	-0.011 (0.023)
<i>Panel G. Characteristics of marginal candidates in the previous elections (elections of treatment)</i>					
Length of the marginal winner's slate					
Additional woman	0.239*** (0.086)	0.199 (0.134)	0.168 (0.210)	-0.071 (0.383)	0.493 (0.555)
Indicator of the marginal winner represents a major party					
Additional woman	-0.026*** (0.009)	-0.000 (0.010)	-0.006 (0.015)	0.003 (0.030)	0.023 (0.049)
Median position of women on the marginal winner's slate					
Additional woman	0.093*** (0.006)	0.096*** (0.010)	0.070*** (0.015)	0.037 (0.028)	0.038 (0.043)
Share of female candidates on the marginal winner's slate					
Additional woman	0.283*** (0.007)	0.404*** (0.011)	0.563*** (0.017)	0.666*** (0.033)	0.614*** (0.054)
Share of female candidates on the marginal loser's slate					
Additional woman	-0.291*** (0.007)	-0.386*** (0.012)	-0.540*** (0.018)	-0.681*** (0.032)	-0.723*** (0.046)
Number of candidates elected from the winner's slate					
Additional woman	0.263*** (0.080)	0.217** (0.096)	0.164 (0.139)	0.131 (0.230)	0.483 (0.318)
Number of female candidates elected from the winner's slate other than the marginally elected					
Additional woman	0.144*** (0.031)	0.154*** (0.040)	0.165*** (0.056)	-0.035 (0.086)	-0.042 (0.112)
Age of the marginal winner					
Additional woman	-1.146*** (0.336)	-0.911* (0.500)	-0.632 (0.792)	0.619 (1.467)	0.245 (2.250)
Indicator that the marginal winner has higher education					
Additional woman	0.018* (0.010)	0.010 (0.014)	0.014 (0.019)	-0.013 (0.037)	-0.011 (0.054)

Note: Elections year\*council size fixed effects, victory margin and robust standard errors used in all regressions.

Figure 1: Density of cases around the cut-off

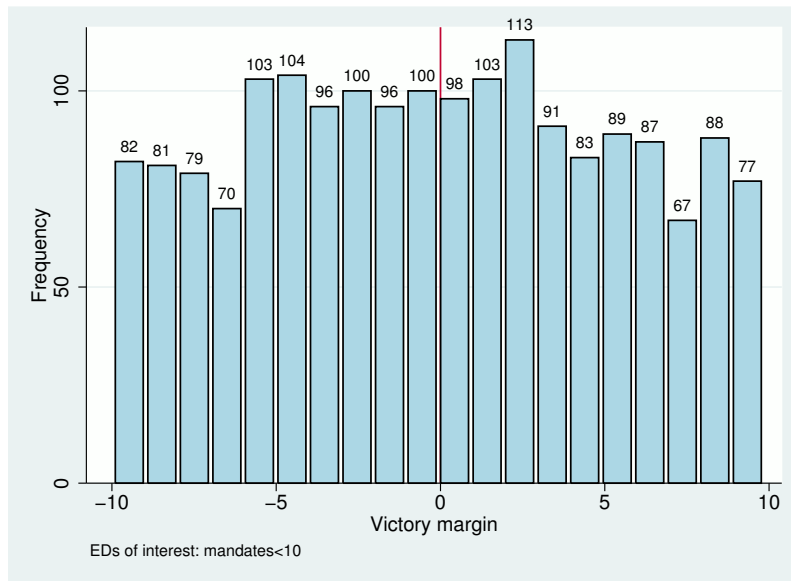


Table 6: Main results  
Model specifications

Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Panel A					
Number of female candidates					
Additional woman	0.671** (0.297)	0.352** (0.170)	0.190 (0.247)	-0.575 (0.424)	-1.476** (0.658)
Victory margin	-0.039*** (0.008)	-0.038*** (0.005)	-0.029 (0.018)	0.205* (0.110)	0.317 (0.488)
Victory margin*Add.wom.	0.065*** (0.014)	0.069*** (0.008)	0.059** (0.025)	-0.122 (0.150)	0.652 (0.695)
Adj. R-sq	0.830	0.172	0.136	0.125	0.122
Panel B					
Number of female candidates, excluding the marginally winning or losing female candidates					
Additional woman	0.482 (0.297)	0.145 (0.167)	-0.033 (0.243)	-0.804* (0.419)	-1.594** (0.644)
Victory margin	-0.039*** (0.008)	-0.039*** (0.005)	-0.027 (0.018)	0.199* (0.107)	0.325 (0.474)
Victory margin*Add.wom.	0.065*** (0.014)	0.069*** (0.008)	0.054** (0.025)	-0.107 (0.148)	0.509 (0.682)
Adj. R-sq	0.831	0.174	0.137	0.130	0.131
Panel C					
Participation probability: marginal female winner vs loser					
Additional woman	0.189*** (0.014)	0.207*** (0.021)	0.223*** (0.033)	0.229*** (0.063)	0.117 (0.098)
Victory margin	-0.000 (0.000)	0.001 (0.001)	-0.002 (0.002)	0.006 (0.015)	-0.007 (0.067)
Victory margin*Add.wom.	0.000 (0.000)	-0.001 (0.001)	0.005 (0.003)	-0.016 (0.023)	0.143 (0.098)
Adj. R-sq	0.046	0.047	0.050	0.045	0.051
Panel D					
Probability to win again conditional on participating again: marginal female winner vs loser					
Additional woman	0.153*** (0.020)	0.103*** (0.031)	0.124** (0.049)	0.161* (0.093)	0.267* (0.139)
Victory margin	-0.000 (0.000)	0.004*** (0.001)	0.000 (0.004)	-0.018 (0.026)	0.013 (0.107)
Victory margin*Add.wom.	0.000 (0.000)	-0.003** (0.001)	0.001 (0.005)	0.033 (0.034)	-0.080 (0.139)
Adj. R-sq	0.046	0.039	0.020	0.016	0.045
Observations	3172	2065	1427	444	167
Panel E					
Number of newly participating female candidates					
Additional woman	0.444* (0.228)	0.114 (0.128)	-0.152 (0.182)	-0.548* (0.307)	-1.137** (0.481)
Victory margin	-0.032*** (0.006)	-0.028*** (0.004)	-0.014 (0.014)	0.064 (0.081)	0.224 (0.362)
Victory margin*Add.wom.	0.050*** (0.011)	0.051*** (0.006)	0.045** (0.019)	0.021 (0.111)	0.348 (0.539)
Adj. R-sq	0.809	0.124	0.093	0.091	0.084

Note: Elections year\*council size fixed effects and robust standard errors used in all regressions

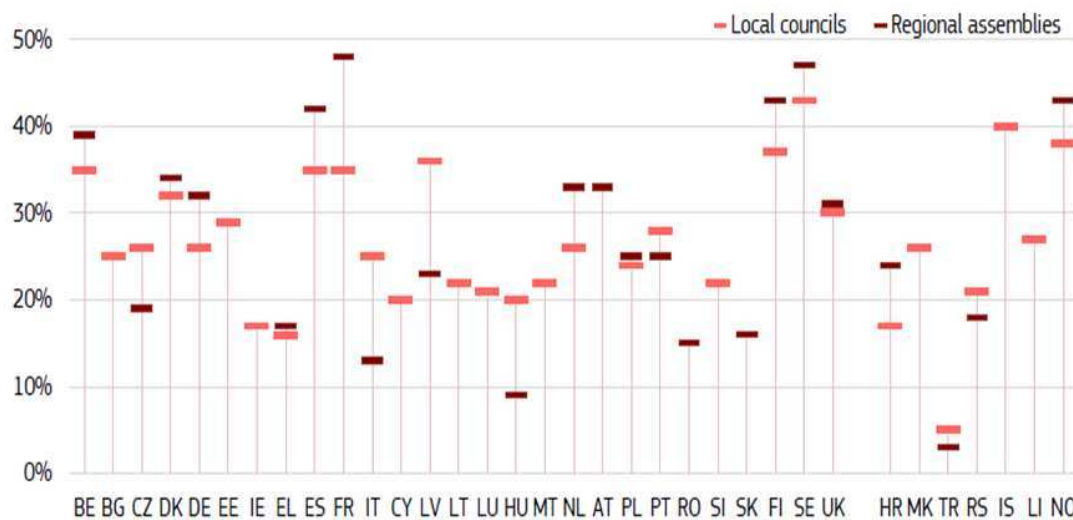


Table 7: Raw regressions - effect of additional female councilor

Model specifications					
Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Panel A					
Number of female candidates					
No victory margin	0.3583* (0.1959)	0.2250* (0.1228)	0.1916 (0.1360)	0.1192 (0.2290)	-0.4089 (0.3730)
Adj. R-sq	0.825	0.153	0.135	0.124	0.116
No victory margin & FE	0.7991* (0.4718)	0.2457* (0.1333)	0.1622 (0.1460)	0.0869 (0.2438)	-0.3889 (0.3937)
Adj. R-sq	0.000	0.001	0.000	-0.001	-0.000
Panel B					
Number of female candidates, excluding the marginally winning or losing female candidates					
No victory margin	0.1752 (0.1950)	0.0087 (0.1210)	-0.0322 (0.1339)	-0.1020 (0.2254)	-0.6321* (0.3681)
Adj. R-sq	0.826	0.154	0.136	0.128	0.127
No victory margin & FE	0.6166 (0.4704)	0.0294 (0.1314)	-0.0617 (0.1438)	-0.1365 (0.2405)	-0.6178 (0.3897)
Adj. R-sq	0.000	-0.000	-0.000	-0.001	0.004
Panel C					
Number of newly participating female candidates					
No victory margin	0.0908 (0.1467)	0.0381 (0.0943)	-0.0052 (0.1032)	-0.1965 (0.1668)	-0.4753* (0.2729)
Adj. R-sq	0.803	0.105	0.091	0.092	0.081
No victory margin & FE	0.4021 (0.3340)	0.0505 (0.0995)	-0.0240 (0.1080)	-0.2152 (0.1748)	-0.4544 <sup>+</sup> (0.2831)
Adj. R-sq	0.000	-0.000	-0.000	0.001	0.005

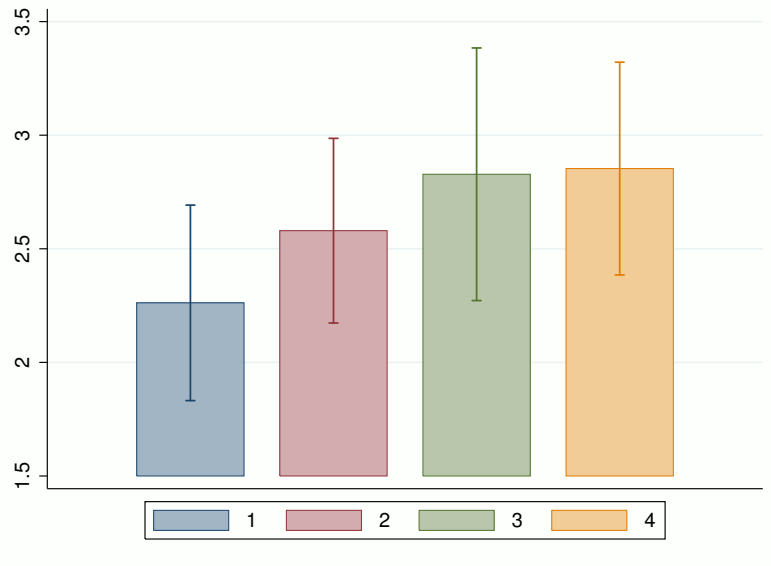
Note: Robust standard errors used in all regressions. <sup>+</sup> p-value=0.109. FE = Elections year\*council size.

Figure 2: Female political participation in local (2011) and regional (2012) levels in the Czech Republic and other EU27 countries



Source: European Commission - Women and men in leadership positions in the European Union, 2013. Note: EU averages are 32% (local) and 27% (regional).

Figure 3: Number of newly participating female candidates by groups



- (1) Marginal female winner runs gain
- (2) Marginal female winner does not run again
- (3) Marginal female loser runs again
- (4) Marginal female loser does not run again

Note: 90% confidence intervals.

Table 8: Main results: insight

	(1)	(2)	(3)	(4)	(5)
	Number of new women	Number of new women	Votes share in the ED	Votes share on slates	Percentile position
Additional woman	-0.904* (0.524)	-0.900* (0.517)			
Marginal female winner again	-0.483 (0.354)				
Successful female winner		-0.770** (0.376)	0.017* (0.009)	-13.520 (11.300)	0.006 (0.089)
Marginal female winner		-0.849 (0.547)	0.011 (0.011)	13.710 (13.811)	0.061 (0.109)
Not successful female winner		0.994 (0.829)			
<i>N</i>	345	345	103	103	103
Adj. R-sq	0.085	0.099	0.152	0.095	0.001
Sample	EDs of interest	EDs of interest	EDs: marg. win.woman runs again	EDs: marg. win.woman runs again	EDs: marg. win.woman runs again

Note: Elections year\*council size fixed effects and robust standard errors used in all regressions.

Victory margin is controlled for in all regressions.

Municipalities with <10 mandates, victory margin [-2;2].

Successful female winner won in the next elections with victory margin  $\geq 5$ , marginal female winner in the next elections had the victory margin in the range (-5;5), not successful female winner lost in the next elections with the margin  $\geq 5$ .

## A Appendix: D'Hondt's method

This method has number of modifications and is widely used. In the Czech Republic the method has been used to allocate the mandates in the municipal council elections since 1990, the regional elections since 2000, the national elections since 2002 and in the European Parliament elections since 2004. The method works in the following way.

Example:

Mandates to be allocated: 4

Votes cast to party A: 21529

Votes cast to party B: 64583

Votes cast to party C: 21527

Votes cast to party D: 16124

The essence of the method is that the total number of votes cast to each party is divided by the set of numbers ("electoral divisors") to obtain the so called Shares. Since 2001 the divisors are: 1,2,3,4,5 etc.

Example:

Assume each party has nominated four candidates. Then the shares are:

Shares A: 21529, 10765, 7177, 5383

Shares B: 64583, 32292, 21528, 16146

Shares C: 21527, 10764, 7176, 5382

Shares D: 16124, 8062, 5375, 4031

These Shares are then ranked from highest to lowest. The necessary amount of mandates  $N$  is allocated to the parties that occupy the first  $N$  positions.

Example:

1. 64583 B
2. 32292 B
3. 21529 A
4. 21528 B

In order to participate in the allocation of mandates, a slate needs to collect at least 5% of total amount of votes that were allocated to the candidates in the municipality. In case the slate is represented by fewer candidates than the amount of mandates to be allocated, the condition is adjusted: the slate needs to accumulate 5% of the following number. Total amount of votes cast to all candidates in the municipality are divided by the amount of mandates to be allocated and multiplied by the number of candidates representing the slate. Therefore, the slates that nominate fewer candidates than have to be elected in the municipality have to accumulate less votes than 5% of total amount to participate in the allocation of mandates.

The mandates allocated to the party are distributed to the candidates inside the party slate according to their positions on the slate. In the case that a candidate receives 10 % more votes than average amount of votes per candidate on the slate, the candidate moves up inside the list and obtains a mandate.

## B Appendix: Summary statistics for the excluded municipalities

Table 9: Summary statistics: EDs that are excluded from the sample

Variable	Mean	Std. Dev.	Min.	Max.
Panel B: EDs with same gender candidates competing for the last seat				
Number of candidates in ED	36.85	52.933	5	971
Number of female candidates in ED	11.326	17.957	0	325
Number of seats in a Council	10.027	4.874	5	55
Number of slates in ED	4.631	3.743	1	39
Number of slates in ED in previous elections	4.749	3.687	1	39
N			9577	
Panel C: EDs with same gender candidates competing for the last seat, mandates<10, victory margin [-20;20]				
Number of candidates in ED	15.112	9.512	5	90
Number of female candidates in ED	4.283	3.85	0	46
Number of seats in a Council	7.32	1.181	5	9
Number of slates in ED	4.635	4.17	1	25
Number of slates in ED in previous elections	4.901	4.243	1	25
N			4848	
Panel D: EDs with same gender candidates competing for the last seat, mandates<10, victory margin [-5;5]				
Number of candidates in ED	14.57	9.210	5	81
Number of female candidates in ED	4.137	3.795	0	34
Number of seats in a Council	7.304	1.196	5	9
Number of slates in ED	5.738	4.557	1	22
Number of slates in ED in previous elections	6.572	4.684	1	25
N			1551	
Panel E: EDs with same gender candidates competing for the last seat, mandates<10, victory margin [-2;2]				
Number of candidates in ED	15.325	9.91	5	81
Number of female candidates in ED	4.285	4.007	0	34
Number of seats in a Council	7.386	1.2	5	9
Number of slates in ED	5.908	4.505	1	22
Number of slates in ED in previous elections	6.672	4.376	1	22
N			585	

Table 10: Summary statistics: EDs that are excluded from the sample: two marginal female candidates

Variable	Mean	Std. Dev.	Min.	Max.
Panel B: EDs with female candidates competing for the last seat				
Number of candidates in ED	31.158	38.169	5	344
Number of female candidates in ED	10.976	13.607	0	137
Number of seats in a Council	9.488	4.2	5	45
Number of slates in ED	4.314	3.534	1	23
Number of slates in ED in previous elections	4.513	3.543	1	23
N			1199	
Panel C: EDs with female candidates competing for the last seat, mandates<10, victory margin [-20;20]				
Number of candidates in ED	14.98	9.412	5	63
Number of female candidates in ED	5.395	3.964	0	27
Number of seats in a Council	7.258	1.191	5	9
Number of slates in ED	4.397	4.08	1	23
Number of slates in ED in previous elections	4.709	4.208	1	20
N			650	
Panel D: EDs with female candidates competing for the last seat, mandates<10, victory margin [-5;5]				
Number of candidates in ED	13.827	9.060	5	63
Number of female candidates in ED	4.964	3.72	0	25
Number of seats in a Council	7.281	1.284	5	9
Number of slates in ED	6.061	4.850	1	18
Number of slates in ED in previous elections	6.883	4.771	1	20
N			196	
Panel E: EDs with female candidates competing for the last seat, mandates<10, victory margin [-2;2]				
Number of candidates in ED	15.169	11.079	6	63
Number of female candidates in ED	5.262	4.181	0	25
Number of seats in a Council	7.308	1.236	5	9
Number of slates in ED	6.523	4.664	1	18
Number of slates in ED in previous elections	7.385	4.167	1	16
N			65	



Table 11: Summary statistics: EDs that are excluded from the sample: two marginal male candidates

Variable	Mean	Std. Dev.	Min.	Max.
Panel B: EDs with male candidates competing for the last seat				
Number of candidates in ED	37.665	54.675	5	971
Number of female candidates in ED	11.376	18.496	0	325
Number of seats in a Council	10.105	4.958	5	55
Number of slates in ED	4.677	3.77	1	39
Number of slates in ED in previous elections	4.783	3.706	1	39
N			8378	
Panel C: EDs with male candidates competing for the last seat, mandates<10, victory margin [-20;20]				
Number of candidates in ED	15.132	9.528	5	90
Number of female candidates in ED	4.11	3.804	0	46
Number of seats in a Council	7.33	1.179	5	9
Number of slates in ED	4.672	4.183	1	25
Number of slates in ED in previous elections	4.931	4.248	1	25
N			4198	
Panel D: EDs with male candidates competing for the last seat, mandates<10, victory margin [-5;5]				
Number of candidates in ED	14.677	9.23	5	81
Number of female candidates in ED	4.018	3.792	0	34
Number of seats in a Council	7.307	1.183	5	9
Number of slates in ED	5.691	4.513	1	22
Number of slates in ED in previous elections	6.527	4.671	1	25
N			1355	
Panel E: EDs with male candidates competing for the last seat, mandates<10, victory margin [-2;2]				
Number of candidates in ED	15.344	9.765	5	81
Number of female candidates in ED	4.163	3.972	0	34
Number of seats in a Council	7.396	1.196	5	9
Number of slates in ED	5.831	4.483	1	22
Number of slates in ED in previous elections	6.583	4.397	1	22
N			520	

## C Appendix: Outcome graphs

Figure 4: Number of female candidates

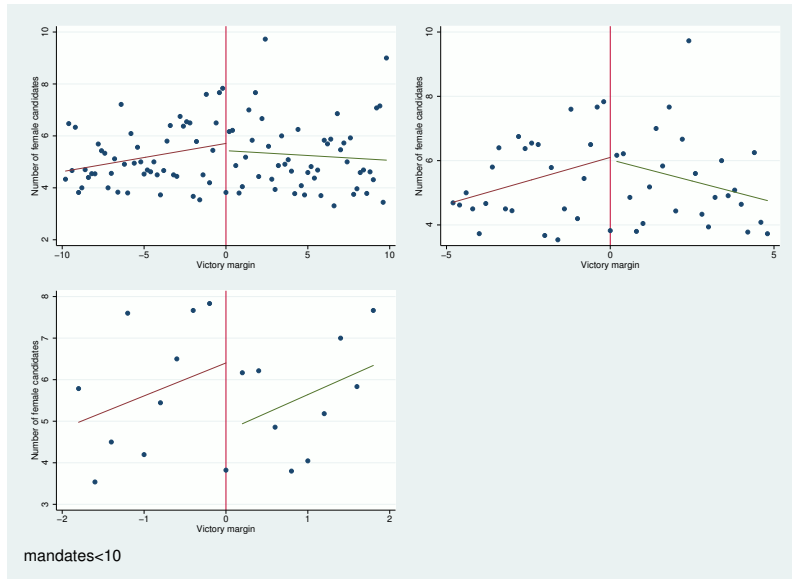


Figure 5: Number of female candidates, excluding the marginally winning or losing female candidates

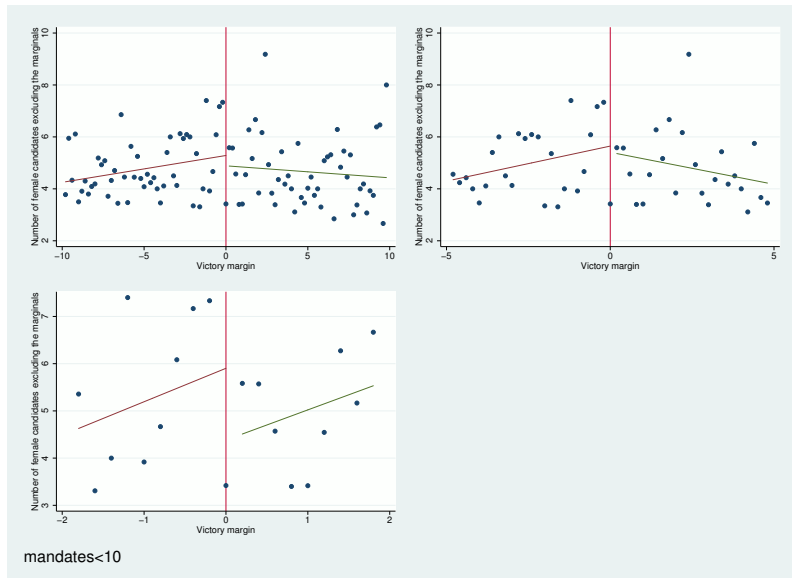


Figure 6: Participation probability

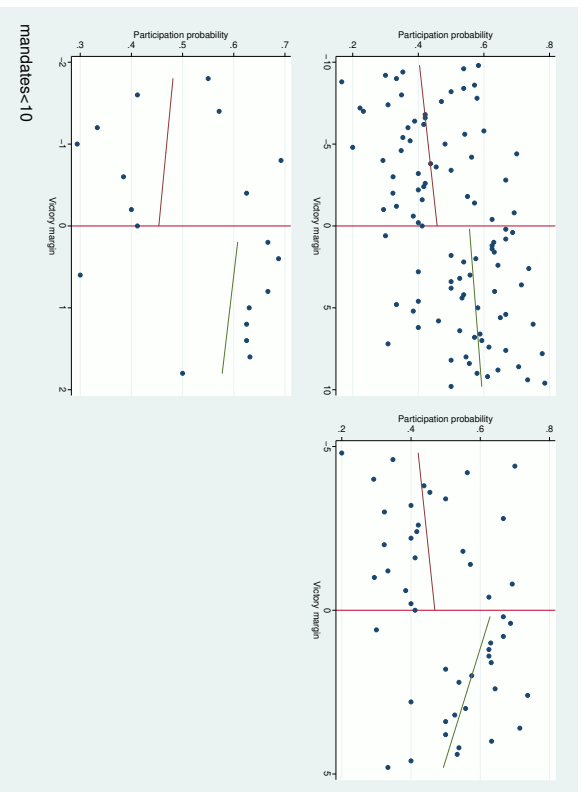


Figure 7: Probability to win again conditional on participating again

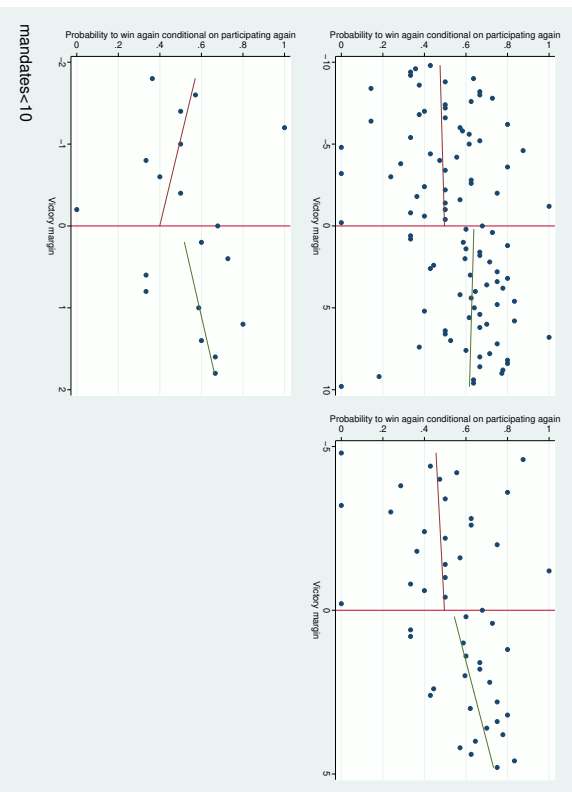
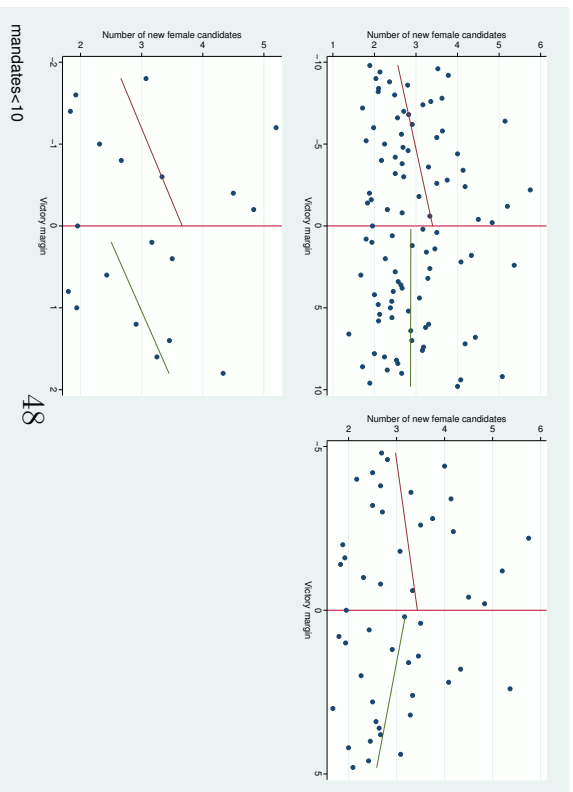


Figure 8: Number of newly participating female candidates



## D Appendix: Robustness checks

Table 12: Main results with interactions: indicator of the two marginal candidates representing the same slate

Model specifications				
Observations	6088	4256	2965	955
Sample	ALL	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]
Panel A				
Number of female candidates				
Additional woman	0.701** (0.323)	0.321* (0.188)	0.187 (0.250)	-0.570 (0.431)
Same slate	-2.196*** (0.229)	-1.243*** (0.155)	-1.540*** (0.177)	-0.885* (0.456)
Same slate	-0.011	0.118	0.332	0.020
*Add.wom.	(0.337)	(0.231)	(0.253)	(0.651)
Adj. R-sq	0.832	0.185	0.155	0.127
Panel B				
Number of female candidates, excluding the marginally winning or losing female candidates				
Additional woman	0.531* (0.322)	0.128 (0.184)	-0.034 (0.246)	-0.798* (0.426)
Same slate	-2.174*** (0.228)	-1.230*** (0.152)	-1.514*** (0.173)	-0.892** (0.443)
Same slate	-0.096	0.056	0.307	0.027
*Add.wom.	(0.335)	(0.228)	(0.249)	(0.637)
Adj. R-sq	0.833	0.188	0.156	0.132
Panel C				
Number of newly participating female candidates				
Additional woman	0.463* (0.245)	0.126 (0.140)	-0.144 (0.185)	-0.565* (0.312)
Same slate	-1.313*** (0.173)	-0.683*** (0.125)	-0.857*** (0.141)	-0.361 (0.388)
Same slate	-0.012	-0.064	0.094	-0.226
*Add.wom.	(0.253)	(0.186)	(0.203)	(0.531)
Adj. R-sq	0.810	0.132	0.104	0.091

Note: Elections year\*council size fixed effects and robust standard errors used in all regressions.

Victory margin is controlled for in all regressions.

Table 13: Main results with interactions: high jumpers

Model specifications					
Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Panel A					
Number of female candidates					
Additional woman	0.620* (0.361)	0.218 (0.213)	-0.122 (0.311)	-1.186** (0.600)	-1.662* (0.918)
High jumper	-0.757*** (0.229)	-0.912*** (0.177)	-1.114*** (0.199)	-1.563*** (0.346)	-1.277** (0.604)
High jumper *Add.wom.	0.105 (0.369)	0.259 (0.261)	0.528* (0.285)	0.812* (0.489)	0.079 (0.795)
Adj. R-sq	0.830	0.178	0.147	0.148	0.142
Panel B					
Number of female candidates, excluding the marginally winning or losing female candidates					
Additional woman	0.462 (0.361)	0.054 (0.209)	-0.282 (0.306)	-1.346** (0.592)	-1.795** (0.901)
High jumper	-0.682*** (0.225)	-0.841*** (0.173)	-1.050*** (0.195)	-1.494*** (0.338)	-1.333** (0.585)
High jumper *Add.wom.	-0.011 (0.367)	0.155 (0.257)	0.413 (0.281)	0.715 (0.481)	0.094 (0.780)
Adj. R-sq	0.831	0.180	0.147	0.152	0.153
Panel C					
Number of newly participating female candidates					
Additional woman	0.448 (0.276)	0.025 (0.160)	-0.375 (0.233)	-0.979** (0.433)	-1.071* (0.625)
High jumper	-0.461*** (0.165)	-0.658*** (0.130)	-0.787*** (0.151)	-1.015*** (0.257)	-0.501 (0.415)
High jumper *Add.wom.	-0.076 (0.266)	0.168 (0.192)	0.378* (0.213)	0.579 (0.354)	-0.189 (0.557)
Adj. R-sq	0.809	0.130	0.102	0.108	0.090

Note: Elections year\*council size fixed effects and robust standard errors used in all regressions.

Victory margin is controlled for in all regressions.

## E Appendix: Interacting the main effect with an indicator of the marginally winning candidate representing a major party

Table 14: Main results with interactions: indicator of the marginally winning candidate representing a major party

Model specifications					
Observations	6088	4256	2965	955	345
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Panel A					
Number of female candidates					
Additional woman	0.710** (0.295)	0.389** (0.168)	0.244 (0.246)	-0.466 (0.422)	-1.227* (0.660)
Winner from major party	1.731*** (0.563)	2.174*** (0.396)	2.428*** (0.509)	1.964*** (0.689)	3.477*** (1.212)
Winner from major party	0.115 (0.917)	-0.892 (0.601)	-0.866 (0.772)	-2.393*** (0.903)	-3.865*** (1.415)
*Add.wom.					
Adj. R-sq	0.831	0.182	0.148	0.131	0.143
Panel B					
Number of female candidates, excluding the marginally winning or losing female candidates					
Additional woman	0.523* (0.295)	0.181 (0.165)	0.023 (0.242)	-0.689* (0.418)	-1.340** (0.648)
Winner from major party	1.708*** (0.559)	2.086*** (0.390)	2.359*** (0.498)	1.894*** (0.677)	3.430*** (1.153)
Winner from major party	0.059 (0.915)	-0.856 (0.596)	-0.922 (0.767)	-2.505*** (0.900)	-3.906*** (1.351)
*Add.wom.					
Adj. R-sq	0.831	0.183	0.148	0.136	0.151
Panel C					
Number of newly participating female candidates					
Additional woman	0.468** (0.225)	0.132 (0.127)	-0.121 (0.183)	-0.477 (0.305)	-0.972** (0.478)
Winner from major party	0.913** (0.426)	1.323*** (0.303)	1.619*** (0.401)	0.973* (0.502)	2.301*** (0.886)
Winner from major party	-0.000 (0.672)	-0.434 (0.476)	-0.460 (0.640)	-1.526** (0.665)	-2.558** (1.086)
*Add.wom.					
Adj. R-sq	0.809	0.131	0.103	0.093	0.100

Note: Elections year\*council size fixed effects and robust standard errors used in all regressions.

Victory margin is controlled for in all regressions.

## F Appendix: Long-term effect

Table 15: Trend in coefficient

<b>Model specifications - small municipalities</b>					
Observations	3760	2620	1844	600	212
Sample	ALL	mandates <10	mandates <10	mandates <10	mandates <10
Victory margin	ALL	ALL	[-20;20]	[-5;5]	[-2;2]
Panel A					
Number of female candidates					
Additional woman	0.725** (0.341)	0.195 (0.244)	0.348 (0.341)	0.093 (0.627)	-0.829 (0.942)
Adj. R-sq	0.834	0.153	0.119	0.114	0.078
Panel B					
Number of female candidates, excluding the marginally winning or losing female candidates					
Additional woman	0.082 (0.341)	-0.441* (0.243)	-0.241 (0.342)	-0.511 (0.631)	-1.278 (0.948)
Adj. R-sq	0.834	0.155	0.122	0.112	0.077
Panel C					
Number of newly participating female candidates					
Additional woman	0.534** (0.265)	0.088 (0.181)	0.200 (0.263)	-0.104 (0.480)	-0.949 (0.757)
Adj. R-sq	0.810	0.103	0.079	0.078	0.082
<b>Model specifications - no restriction on the size of municipality</b>					
Observations			2231	715	258
Sample			ALL	ALL	ALL
Victory margin			[-20;20]	[-5;5]	[-2;2]
Panel D					
Number of female candidates					
Additional woman			0.369 (0.454)	-0.118 (0.820)	-1.588 (1.235)
Adj. R-sq			0.698	0.766	0.646
Panel E					
Number of female candidates, excluding the marginally winning or losing female candidates					
Additional woman			-0.225 (0.455)	-0.751 (0.824)	-2.078* (1.241)
Adj. R-sq			0.697	0.764	0.638
Panel F					
Number of newly participating female candidates					
Additional woman			0.274 (0.326)	-0.274 (0.591)	-1.397 (0.864)
Adj. R-sq			0.639	0.748	0.601

Note: Elections year\*council size fixed effects and robust standard errors used in all regressions.

Victory margin is controlled for in all regressions.

## **Abstrakt**

Ve své práci zkoumám změny v počtu žen účastnících se politického procesu v souvislosti s nově zvolenou kandidátkou do místního zastupitelstva. Za účelem odfiltrování možné endogenity, která by mohla vyvstat z důvodu ne zcela náhodného volebního procesu, používám ve svém výzkumu metodu nespojitě regrese. Zaměřuji se především na vyrovnané soutěže mezi muži a ženami o poslední pozici v obecním zastupitelstvu. Výsledky ukazují, že volební úspěch každé dodatečné ženy snižuje množství kandidátek v následujících volbách. Daný účinek je znatelnější v obcích, kde vítězství ženy bylo výrazné.



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