7.The Effect of Political Dynasties on the Quality of Government

This section presents findings of political dynasties effects. The results are divided in three sets. The first one refers to the effect of dynasties on the mayor's identity, the second on the policy choices and political competition, and the third on welfare.

7.1. The Effect of Political Dynasties on the Mayors' Identity

The first set of results presented is related to characteristics of the mayor. As argued in the Conceptual Framework section, it is possible that the family successions increase the probability of female, low quality, young and more powerful candidates reaching mayoral positions. The first column of Table 7 exhibits the estimated coefficients, using a dummy for female mayors as the dependent variable. The OLS estimates indicate a negative association between a victorious dynastic candidate and the probability electing a woman of 7.6 percentage points. As argued in Section 6, this result cannot be interpreted as causal, due to potential simultaneity and omitted variable bias problems. Therefore, this effect is estimated exploring the discontinuity in close elections as illustrated in equation (4). The coefficients range from 6.2 (an effect of 55%) to 9.2 percentage points (effect of 82%). The first non-parametric specification is reported based on the optimal bandwidth choice described by Imbens and Kalyanaraman (2011). To test whether the result found is sensitive to the bandwidth selection, the last two columns present the non-parametric specifications with bandwidths 50% and 200% of the optimal bandwidth size. These coefficients indicate that political dynasties increase the probability of having a female mayor between 7.5 and 11 percentage points. This

result is robust to a variety of specifications not reported here[13]. Moreover the estimated coefficients are not only statistically significant, but also very important. If one considers the fact that the proportion of female mayors in the sample is 11%, the effect reported by our preferred specification (non-parametric with the optimal bandwidth choice) corresponds to an increase of 79% of the proportion of women in power.

This effect stems from a selection bias toward women candidates by political families. Female candidates are much more common among dynastic (where they correspond to 10.63% of the candidates) than among non-dynastic candidates (where they correspond to only 5.6%).

There are two alternative interpretations for this result. The first one would be that dynasties help women's entrance in politics, thereby diversifying the political system. Beaman et al (2008) find that a woman in power reduces the negative bias towards female leaders in voters' opinion, increasing the probability of a victorious woman in future elections. So the effect of dynasties on the gender composition may have long term consequences on the proportion of women in Brazilian local politics. On the other hand, it could be the case that these women are just entering politics to fulfill the empty spot of their husbands and fathers while these are unable to be reelected, due to term limit constraints.

The second finding of this paper is a negative effect of political dynasties on the average mayor's age. Column 2 presents the estimates on this variable. The OLS results indicate that dynastic mayors are associated to a decrease of 2.6 years of age. When, we estimate the causal effect of dynasties exploring the discontinuity, the results are fairly similar[14], ranging from -2.8 to -3.6 years, even greater than the OLS results. These estimates correspond to a negative effect of approximately 7% on mayor's age.

Once again, this result stems from a candidate's selection by dynasties. The average age among dynastic candidates (50) is 1.5 years lower than among the non- dynastic ones (51.5).

[13] For every result, heterogeneity and robustness test of this work, the linear, quadratic and cubic specifications were estimated restricting the sample to candidates that won or lost the elections by 10%, 30% and 60% of the vote.

[14] The linear specification is the only exception presenting an effect of 1.9 years. It is possible that this is a consequence of some non-linearity in the relationship between the mayor's age and the vote margin.

On the other hand, column 3 suggests that family successions do not affect mayors' quality, which is measured by their education following Ferraz and Finan (2011). The OLS coefficient is significant and important, suggesting a correlation of 4.9 percentage points (12%) between dynastic mayors and mayors with a college degree in our sample. However, this significance disappears, when we estimate the causal effect in the RD specifications. Although this result can be understood as the absence of a causal effect, two caveats have to be made. The first one is that this effect is local in the senses described in Section 6. It could be possible that in less competitive municipalities, where dynasties are more powerful, these families are more apt to indicate candidates with lower qualities. Furthermore, the education of the mayor is not a perfect measure of quality. In Section 2.1, we argued that a negative effect of dynasties on the quality of the candidate would be expected. What is documented here is the absence of this effect when this quality is measured by a college degree. However, since this could be an incomplete measure of the mayor's quality, it is still possible that dynasties affect this quality in other dimensions.

Finally, we investigate the hypothesis that antecedents of a dynastic mayor affect the political environment in favor of their family, increasing the legislative support of their successors. With this intention, column 4 presents results on the proportion of the city council's legislators which is affiliated to the same coalition as the mayor. On average, 31% of the legislators are in the same coalition as the mayor's in the sample. The OLS coefficient suggests a strong positive correlation between victorious dynastic candidates and the legislative support of 17.5 percentage points or 56%. The results of the RD specifications are not as robust as the one on gender and on age. The parametric specifications presented indicate that family successions have no effect on the proportion of legislators supporting the mayor. However, all the point estimates are positive, and most of the narrower specifications present significant effects[15]. The non-parametric ones indicate an important positive effect on this support of around 5 percentage points (16%). Hence, dynasties seem to increase the legislative support of mayors.

[15] Seven out of the 12 narrower parametric specifications are positive and significant, with values ranging from 4 to 8 percentage points.

7.2. The Effect of Political Dynasties on Policy Choices and Political Competition

The second set of political dynasties' effects that we investigate embraces the policy choices of mayors and their consequences on political competition. The last result presented indicated that dynasties increase the legislative support of mayors. In the first column of Table 8, we investigate whether dynasties also increase the mayor's capacity to legislate. Although it is not the mayor's duty to submit and approve bills in the municipal council, 89% of the bills submitted by the executive power were approved in the 2005 – 2008 mandate. The OLS coefficient shows that there is no association between dynastic mayors and this legislative power. The RD specifications identify no effect of political dynasties on the proportion of bills approved. This result suggest that, despite the greater legislative support inherited from the relatives in previous offices, dynastic mayors are not able to increase the executive influence on the legislative branch of government.

The incumbency advantage of dynastic mayors (Querubin 2010, 2) could lead them to make a lower effort during their administration. Therefore, we investigate the effect of dynasties on the effort of mayors to obtain Discretionary Transfers (column 2) and to work on Zoning Laws (column 3) during their mandates. Results indicate that dynastic mayors do not present any correlation or effects on both measures of effort.

We also examine the apparatus enlargement hypothesis, which could arise due to the advantages of small groups in capturing power (Olson, 1965), as argued before. The OLS result in column 4 indicates that there is no difference in the number of employees in the direct administration of dynastic and non-dynastic mayors. The RD coefficient shows that dynastic mandate do not affect this number either. Column 5 points out that if one considers the municipal personnel expenditure as an alternative proxy of apparatus size, similar results are found. Even if mayors cannot alter the number of employees rapidly, they could still alter the selection criteria through which employees are hired. If the mayor captures the power, it is more likely that he will hire employees

in accordance with their relationship with him and not with their qualifications. In this case, one should expect a negative effect on the proportion of employees which have a college degree. Column 6 refutes this hypothesis. The OLS results indicate that there is a small correlation of one percentage point between a dynastic mayors and the proportion of commissioned employees with a college degree. The RD results point out that there is no effect of dynasties on this proportion[16].

Additionally, we investigate if the longer political horizon of dynastic mayors affects the investment expenditures as suggested by Besley and Reynal-Queirol (2011). A natural concern with this argument is the legal prohibition of direct dynastic succession discussed in Section 3. This seems to prevent the continuity of the work by dynastic mayors. However, as we showed earlier, this law was often circumvented. Moreover, it is possible that this effect exists even in successions that are not direct. A dynastic mayor could continue the works of his relative, two or three terms after this relative was in office. It is still possible that the dynasty arranges a non dynastic ally to govern the municipality between two dynastic mayors, thereby perpetuating the dynasty's hold on political power. The results of column 7 suggest that there is neither correlation nor an effect of dynasties on direct investments expenditures. The linear specification is the only marginally significant specification of the 21 estimated.

Although dynasties do not seem to affect public policies, they might hinder the entrance of new candidates in future electoral races. This possibility is examined by identifying the effect of dynastic mayors on the number of candidates on the following election (last column of Table 8). The OLS result indicates a negative association between a dynastic mayor and the number of candidates. However, as discussed in Section 6, this could be due to omitted variable bias. The political power of a dynasty is correlated to the probability of a victorious candidate in the family, at the same time that it is responsible for hindering the entrance of new candidates. Hence, one cannot interpret this result as causal. In fact, the insignificant RD coefficients suggest that dynasties do not affect political competition.

[16] The coefficient of the linear specification is the only significant one among the 21 specifications estimated.

7.3. The Effect of Political Dynasties on Welfare

In this subsection, we address the crucial question of whether dynastic mayors affect the population's welfare. As argued in the conceptual framework, dynastic politicians could affect this welfare by choosing different policies. However, above we present evidence that this was not true among the policies we investigated. In Table 9, the insignificant coefficients of the RD specifications indicate that dynasties do not affect the welfare either, when it is measured by the growth rate of income per capita.

We use a second approach to identify the effects of family successions on welfare, which is to analyze the revealed preference of voters. The OLS coefficient of Column 2 displays a positive but insignificant correlation of dynastic mayors and the reelection campaign spending. The estimates exploring the exogenous variation of the discontinuity in the zero vote margin are larger and partially significant. Since many of the mayors in our sample did not run for reelection, these estimates present only 410 observations. This might explain why some specifications are not significant. Nevertheless, even the insignificant coefficients present similar point estimates, which range from a 41 to a 51% effect of dynasties on the reelection campaign spending.

This large effect, as well as their incumbency advantage, should help dynastic mayors get reelected. However, when we estimate the effect of dynasties on the reelection probability, we find a null result. The RD coefficients of column 3 are all insignificant, and the quadratic specification point estimate is even negative. Therefore, the revealed preference of voters is for non-dynastic candidates.

7.4. Graphical Illustration of Dynasties Effects

Figure 2 illustrates the consequences of political dynasties on mayors' identity. The first panel shows that the mayors in municipalities where dynastic candidates barely won the elections present a greater probability of being female than mayors in municipalities where these dynastic lost by a small margin. This graph indicates an effect of more than

10 percentage points around the discontinuity. The second panel suggests a negative effect of dynasties on mayor's age, whereas the third panel indicates that there is not any discontinuity on the proportion of mayors with a college degree around the zero vote margin. The last panel illustrates the positive effect of family successions on the proportion of legislators in the mayor's coalition. Dynasties elect more women, younger mayors and politicians with a greater legislative support.

We present the graphs for the effect of dynasties on policy choices and political competition in Figure 3. None of the graphs present discontinuity around the zero vote margin. Although municipalities with dynasties elect different types of mayors, dynasties do not appear to affect the capacity of the mayor to legislate, his effort, the size and the efficiency of the municipal administration or the long term investments made. The last panel indicates that these political families do not affect the political competition, despite their incumbency advantages.

Finally, Figure 4 presents similar graphs for the effects of dynasties on welfare. The first panel shows that dynasties do not affect the welfare of citizens, when it is measured by the income per capita growth. The last two panels indicate that despite the larger amounts spent by dynastic mayors on reelection campaigns, these mayors do not get reelected with a higher probability. These last results suggest that the preference of voters is for non-dynastic candidates.