

Understanding the economic impacts of political dynasties: evidence from India*

Siddharth Eapen George & Dominic Ponattu

August 18, 2017

Abstract

Political dynasties are present in most countries, yet we have very limited empirical evidence on the economic consequences of dynastic rule. Economic theory makes ambiguous predictions about political dynasties: on the one hand, dynasts may behave like “stationary bandits” and invest more in their constituencies, and use their clout to direct state resources to their localities. On the other hand, dynasts may have particularly strong incentives to foster long-term clientelistic relationships, which may chill political competition and worsen governance. We compile novel data on the family connections of Indian politicians, and use a close elections RD design to estimate the impact of being ruled by a political dynasty on local economic development. Using night-time luminosity as a measure of local economic activity, we find that constituencies where dynasts narrowly win grow 6.5pp slower per year (~ 0.2 std dev) compared to constituencies where dynasts narrowly lose. These results hold even when comparing neighbouring villages that are in the same administrative district but different political constituencies. Dynastic rule also worsens public good provision (~ 0.14 std dev). Voters subjectively assess dynastic politicians to perform worse (~ 0.4 std dev), but this effect is only observed among non-coethnic voters, consistent with dynasts fostering ethnic patronage.

The negative impacts of dynastic rule do not appear to be driven by: (i) greater rent-seeking among

*Siddharth Eapen George, siddharthgeorge@fas.harvard.edu, Harvard University, Cambridge, MA, USA; Dominic Ponattu, dponattu@mail.uni-mannheim.de, University of Mannheim, Germany. We thank Alberto Alesina, Abhijit Banerjee, Kirill Borusyak, Emily Breza, Michael Kremer, Rohini Pande, Andrei Shleifer, Henrik Sigstad and Edoardo Teso for helpful conversations, and participants at the Midwest Political Science Association conference 2016 conference, Harvard’s development economics and political economy lunches and Mannheim’s political economy seminars for useful feedback.

dynasts (as measured by personal wealth gains while in office); (ii) lower effort exerted by dynastic politicians (as measured by participation in the legislature); and (iii) dynastic victories reducing political competition in subsequent periods. Our results suggest that it is important for theories of political dynasties to explain why they are prevalent as well as bad for development.

1 Introduction

Political dynasties – Clintons, Bushes, Kennedys, Kirschners, Gandhis, Bhuttos, Yudhyonos, Aquinos, Abes, Kims and Lees – are present in most countries around the world, a rare instance in which countries with otherwise very different systems of government share a political trait. While the striking prevalence of political dynasties has motivated researchers to examine why they occur and persist (Smith 2012; Querubin 2015, 2013), we have little empirical evidence on the consequences of dynastic rule.

This paper attempts to fill that gap by studying the local economic impacts of democratically elected political dynasties. Economic theory makes ambiguous predictions about how dynastic rule will affect development. First, dynasts may operate more like stationary – and less like roving – bandits. A longer time horizon may encourage dynastic politicians to invest more in their constituencies, even if their interests are purely extractive. This mirrors a prediction in the literature on family firms (Burkart, Panunzi and Shleifer 2003). However, a long-term view could also motivate dynastic politicians to cultivate clientelistic relationships and foster loyal vote banks (Chandra 2016).

Second, because dynasties tend to exploit the electoral advantages that name recognition and family brand confer (Smith 2012), each individual dynast’s in-office behaviour imposes reputational externalities on other family members who are currently in – or may enter – politics. These externalities give dynasts stronger incentives to govern well. On the other hand, electoral advantages may so insulate dynasts from competition that they mute performance incentives. Potential challengers may be deterred, believing that dynasts are hard to beat. Dynastic rule may thus have a chilling effect on political competition, which could worsen accountability and governance.

Third, dynasts may be able to use their political clout to secure state resources – programs, funds,

attention – for their constituents. This may distort the allocation of public goods, but may well yield private benefits for local residents. Yet dynasts may choose to use their connections for personal enrichment and deepen familial control of the party and local political structures, at the expense of local economic development.

In this paper, we estimate the causal effect of dynastic rule on local economic development. We exploit quasi-random variation afforded by close elections between dynasts and non-dynasts to India’s national Parliament (the Lok Sabha). Our close elections RD strategy relies on the assumption that (treated) constituencies where dynasts narrowly win are similar to (control) constituencies where dynasts narrowly lose. We verify this identification assumption: treatment and control constituencies are balanced on prior proxies of local economic activity, growth and measures of public good provision.

Our main result is that dynastic rule worsens local economic development: using night-time luminosity as a proxy for local economic activity, we find that constituencies where dynasts narrowly win growth on average 6.5pp per year slower (~ 0.2 std deviation) than constituencies where dynasts narrowly lose. These negative results Using very detailed measures of public good provision from the Indian census, we find that dynastic rule worsens public good provision in health services, public health, transport, financial services, welfare programs and entertainment. Dynastic MPs not only perform worse on objective measures of economic development; they are also assessed by voters to perform worse, and this result is driven by very negative assessments from voters who do not share the MP’s caste or religious background.

We test various explanations for why dynastic rule is bad for development. Dynastic and non-dynastic candidates are remarkably similar on observable characteristics like education, wealth and criminality, so the negative effects of dynastic rule must be operating through other channels. We do not find that dynastic victory at election t reduces political competition in $t + 1$ and subsequent elections, as measured by the number of candidates who stand and the winning margin. We also do not find differences in rent-seeking – as measured by asset gain over time – or measures of politician effort (attendance and participation in parliamentary debates).

Our argument and findings relate to a recent literature on political dynasties. Dal Bó, Dal Bó and

Snyder (2009) show that holding legislative office in the US House increases the probability that family members subsequently enter the House. Querubin (2015) and Rossi (2014) also find that holding legislative office raises the probability that one's relatives do, in the Philippines and Argentina respectively. Querubin (2013) shows that institutional measures like term limits which do not tackle the underlying source of dynastic power can be quite ineffective at reducing persistence. Tantri and Thota (2017) also study the consequences of dynastic rule in India.

The remainder of the paper is organised as follows. Section 2 contains background on political dynasties in India. Section 3 describes the data used. Section 4 outlines the empirical strategy. Section 5 presents baseline results. Section 6 shows robustness checks. Section 7 discusses – and tests – candidate mechanisms, and Section 8 concludes.

2 Background

India has a federal political structure, with national, state and local assemblies. While political dynasties are likely to exist at all levels, we focus in this paper on members of the Lok Sabha (Lower House), India's national parliament. There are 543 MPs, whose role involves a mixture of legislative and constituency obligations. Each MP is elected from a single-member electoral district via plurality rule. Each term lasts 5 years (or until the Lok Sabha is dissolved) and there is no term limit. The Nehru-Gandhi family, which leads the Indian National Congress, the party that won India's independence, is perhaps the most well-known political dynasty and has dominated Indian politics for much of the post-independence era. But there are other less well-known political families, including the Sinha family (father and son Finance Ministers), the Pilot family (father and son Union Ministers) and the Gogoi family (Chief Minister of Assam and MP).

3 Data

We put together a dataset of Indian politicians comprising all candidates in close races to the Lok Sabha from 1999-2014. The Lok Sabha is more powerful than the Rajya Sabha, the Indian upper house,

to which members are indirectly elected through state legislatures. For instance, the Lok Sabha has the sole right to introduce money bills and is thus be seen as an agenda-setter in certain policy areas. Moreover, whenever one of the two houses rejects a bill, a joint session will be held on the matter with both bodies voting over the bill. Using simple majority, this procedure favors the Lok Sabha given that it has twice as many members as the Rajya Sabha. Due to a ruling by the Indian Supreme Court mandating all candidates for elected office to file affidavits along with their nomination papers, we have data on the education, criminal charges and wealth of candidates in all elections after 2003. We combine these data with original work from the author Patrick French (2011), who meticulously analyzed family ties of MPs in the 15th Lok Sabha allowing us to classify which politicians are dynasts. In addition, we manually collected biographical backgrounds of candidates to the 14th Lok Sabha in order to glean their potential status as dynasts. We denote a dynast as a candidate with at least one family member who has previously held political office in the state or national assembly.

By this definition nearly 16% of winners and runners-up in Indian Lok Sabha elections over the past 2 decades are dynasts. Moreover, when looking at the specific family connections that dynastic politicians, most are close connections: $\frac{2}{3}$ of dynastic politicians are sons, daughters or spouses (usually wife) of a current or former office-holder.

Connection	Fraction
Any	15.8%
Any (among winners)	19.3%
Among those with family connections	
Candidate is politician's	Fraction
Son	46.7%
Daughter	9.0%
Wife	10.2%
Brother	6.4%
Grandchild	1.9%

3.1 Economic outcomes

Night time luminosity is increasingly being used as a proxy for local economic activity. The data come from images taken by NASA satellites of the world at night, and each grid is assigned a score of 0-63 based on the level of brightness. The advantages of this data are that they are an annual panel, and can be cut at any spatial dimension. For example, in this paper, we use both constituency-level average light intensity and village-level light intensity as proxies for local economic activity. Henderson, Storeygard and Weil (2012) pioneered this literature and it has also been used by Costinot, Donaldson and Smith (2016) to measure agricultural productivity. 1 and 2 illustrate how India has generally become brighter over the last two decades, reflecting the rapid economic growth that has taken place during this period. Table 1 shows summary statistics for night time lights.

3.2 Public good provision

Our measures of public good provision come from the village amenities tab of the Indian Census. We construct indexes of public good availability by category according to the following procedure: we first create a z-score for each constituent public good measure in the category's public good index. The index is then the average z-score of its constituent variables. For example, the education index is based on 5 variables – the availability of government pre-primary, primary, middle, secondary and senior secondary schools. A z-score is calculated for each of the 5 variables, and the education index is the average of these 5 z-scores.

3.3 Voter perceptions

The voter perceptions data comes from a survey administered by the Association for Democratic Reform (ADR) shortly before the 2014 Lok Sabha elections. ADR is an NGO that advocates on issues to help deepen and improve the functioning of democracy in India. ADR filed the public interest litigation that culminated in the Supreme Court ruling that mandated all candidates for public office to submit affidavits disclosing their criminal charges, educational qualification, and assets and liabilities when they submit their nomination papers. ADR's survey on politician performance allows

us to measure the performance of MPs elected in 2009. In the survey, voters were asked to rate how important on a scale of 1-3 each of 30 separate issues were, and then were asked to rate their MP's performance of each issue. Voters were also asked other perceptions questions such as whether they thought their MP was powerful and whether he or she spent generously during the elections.

4 Empirical strategy

To empirically assess the consequences of dynastic rule, we compare the economic outcomes of constituencies where dynasts narrowly win to those where dynasts narrowly lose. A naive comparison of dynasts against non-dynast candidates is likely to result in bias: it would capture confounding factors that are correlated with being dynastic and affect recontesting decisions. For example, dynasts may be wealthier (observable) and have stronger political networks (unobservable), factors that may affect MP performance. Dynasts may also run disproportionately in poorer areas, which would also result in bias. To address these identification concerns, we use a regression discontinuity (RD) design on a sample of closely contested elections.

This strategy is based on the idea that very close elections are determined in part by essentially random components. There is empirical support for the notion that close elections make good natural experiments so long as there is covariate balance in the neighborhood of the discontinuity (Eggers et al. 2015; Lee 2008; Imbens and Lemieux 2008). We restrict the sample to close elections and estimate non-parametric RD regressions using the dynastic victory margin (positive if dynast wins, negative if they lose) as the running variable. The close election RD assumptions imply that dynasts are essentially randomly assigned to constituencies in close elections.

We estimate a regression of the form:

$$Y_{c,t+1} = \alpha + \beta \cdot \text{Dynast win}_{it} + f(\text{Dynastic win margin}_{ct}) + \text{Controls} + \varepsilon_{it}$$

where Dynast win_{ct} is a dummy variable equal to 1 if a dynast defeats a non-dynast in constituency c at time t . The coefficient β captures the effect of dynastic rule on economic outcomes over the elec-

tion cycle. The function f is a flexible function of the running variable – *Dynastic win margin*_{ct}, which equals the vote share of the dynast less the vote share of the non-dynast. The identifying assumption requires that all covariates must be smooth at the cutoff. We focus on races where either the winner or runner-up is a dynast but not both. The counterfactual would be unclear if we included races where the top two candidates were dynasts. Figure 3 shows that there is balance in pre-treatment light intensity – ie. dynasts do not win in systematically brighter (economically developed) or darker (economically backward) constituencies. This is an important sanctity check for the RD design, because it tells us that if dynast-ruled places are faring worse, it is not because worse places are more likely to elect dynasts. Figure 4 shows that there is also balance in pre-treatment trends ie. that dynasts do not win in places where light intensity is growing faster or slower over the previous 5 years (ie. the previous election cycle). This is also an sanctity check for the RD design, because it provides evidence against the view that declining areas elect dynasts or that mean reversion could explain the result that dynast-ruled places far worse. Finally, 5 shows that dynasts do not win in either larger or smaller constituencies.

5 Results

5.1 Economic growth

We now present baseline results on the economic impacts of dynastic rule using night time luminosity as a proxy for local economic activity. We report estimates for RD regressions where the dependent variable is the growth in night-time luminosity in a constituency over the election cycle, and the running variable is the dynastic vote margin (the difference in vote shares between the dynastic and non-dynastic candidate). RD estimates are reported for 3 bandwidths: the optimal Imbens-Kalyanaraman bandwidth, 50% of this value and 200% of this value. Figure 6 plots the RD graph for the IK bandwidth. Our baseline result, shown in table 3, is that dynastic rule results in slower growth of night time luminosity. Column (1) shows that dynastic rule lowers night time light growth by about 6.6 pp per year. Table 1 tells us that the std deviation of night-time lights growth is 28.8 pp, so dynastic

rule lowers growth by approximately 0.22 std deviations. This effect is sizeable: it is roughly the difference in growth between a constituency at the 50th percentile of the lights growth distribution (like Mysore) and a constituency at the 5th percentile (like Dhar in Madhya Pradesh). Columns (2) and (3) show that changing the bandwidth to 50% and 200% of the IK-level does not change the point estimate much, but we lose statistical significance when the bandwidth is reduced to 2.07 pp (ie. 50% of IK level) as the smaller sample yields less precise estimates.

To conduct a robustness check of our baseline results, we exploit a quirk about India, namely the fact that parliamentary and administrative borders generally do not overlap. Hence neighbouring villages may be in the same administrative district and even subdistrict – and hence tended to by the same bureaucrats – but lie in different political constituencies. We exploit this variation, running the RD regression at village-level rather than constituency-level. Moreover, we restrict attention to only those villages which are $\leq 2km$ from a constituency border. If there were some difference between constituencies where dynasties win and lose that was driving the observed negative effects of dynastic rule, including district and subdistrict FEs would control for that variation. Furthermore, figure 10 shows that there is balance in pre-treatment growth trends in night lights growth between treated (ie. dynast-ruled) villages and control (ie. non-dynast ruled) villages.

Figure 7 presents results from this village-level RD regression. Visually we can see that the results complement those from the constituency-level RD regression and demonstrate a negative effect of dynastic rule on night lights growth. 8 shows that varying the RD bandwidth from 5% to 3% has no effect on either the magnitude of the coefficient or its precision, while reducing the bandwidth further from 3% to 1% makes the coefficient more negative but greatly increases the noise. Next, we include district and subdistrict fixed effects to control for unobserved district-level factors that affect night time lights growth, such as the quality of bureaucrats, geographical factors that affect the potential for economic growth, or historical institutions such as the type of land tenure system in the colonial period (Banerjee and Iyer 2005). Figure 9 shows that including district fixed effects leaves the point estimate virtually unchanged by increases standard errors, because the effective number of observations reduces, but the coefficient is still statistically significant at the 10% level. However, introducing subdistrict fixed effects, which is a very restrictive specification, marginally reduces the

point estimate and increases standard errors so that the coefficient is negative but no longer statistically significant at the 10% level. Column (1) of table 4 tells us that dynastic rule reduces village-level night lights growth by 0.44 pp per annum on average. This is approximately 0.21 std deviations, an effect size that is very similar in magnitude to the constituency-wide average effect. The effect size and statistical significance of the coefficient are similar in column (2), where the bandwidth is a dynastic victory margin of 3% rather than the 5% in column (1). In column (3), we shrink the bandwidth to 1%, and the effect size increases significantly to about 1 standard deviation, but is much less precisely estimated.

5.2 Public good provision

Night time luminosity is an increasingly used summary measure of local economy activity, and it has the advantages that it can be measured at any very fine levels of spatial disaggregation, and is measured monthly. However, we do face the criticism that elected MPs have no direct way in which to affect night time luminosity – other than perhaps through rural electrification programs (more evidence on this later). On the other hand, MPs do have leverage over public good provision. First, Indian MPs administer a Local Area Development Scheme (MPLADS), in which they have approximately US\$2m of discretionary funds to spend on any project in their constituency. This money comes with few strings attached and is usually spent on local infrastructure projects. Second, MPs are able to influence the behaviour of local bureaucrats. Existing work has shown that Indian bureaucrats responsible for local development respond to the incentives of their constituency's MPs, and are more responsive to powerful politicians and MPs from the ruling party (Nath 2015). Third, MPs can lobby the state or central government to target projects at their constituency, and politicians – like dynasts – with stronger networks or clout with the political establishment might be more able to “pork barrel” spending in this way. One might therefore expect dynasts to be particularly effective in delivering public goods to their constituents.

We begin by conducting an RD balance check to see whether prior levels of public good provision are different in places where dynasts narrowly win an election compared to places where dynasts narrowly lose an election. Table 5 shows that for a wide range of public good provision outcomes, dynast-

ruled and non-dynast ruled villages have similar prior levels of education, health, communications, transport, financial services, welfare, entertainment public goods and similar levels of electricity.

However, table 6 shows that dynastic rule worsens public good provision on nearly every measure. Most Indians study in public schools, so the availability of public schools in the village is important. Column (1) shows that dynastic rule has negligible impact on the education public goods index, which comprises the availability of government pre-primary, primary, middle, secondary and senior secondary schools. A large literature discusses systematic weaknesses in India's primary healthcare infrastructure and agency problems in healthcare service delivery, particularly in the public sector, and suggests that these reasons may explain why India is a negative outlier in regressions of child health status on income (Chaudhury et al. 2006). Column (2) shows the effect of dynastic rule on the healthcare public infrastructure index, which comprises the respective number of community health centres, primary health centres, primary health subcentres, maternity and child welfare centres, tuberculosis clinics, dispensaries, mobile health clinics, family welfare centres, Integrated Child Development Scheme (ICDS) centres and nutritional (Anganwadi) centres. Dynastic rule worsens the healthcare index by 0.07 units, which is 0.15 standard deviations, taking a village at the 75th percentile down to the median value. Column (3) indicates that dynastic rule lowers the public health index, which comprises dummies for whether the village has treated tap water, closed drainage, any drainage, total sanitation program coverage, and a system of garbage collection, by 0.02 units or about 0.06 standard deviations.

Column (4) studies the effect on communications infrastructure – the availability of post offices, sub post offices, mobile coverage and internet cafes or services centres. Dynastic rule has no effect on this index. Column (5) examines effects on transportation public goods – the availability of public bus services and major, black topped and gravel roads. Dynastic rule reduces availability of these public services by 0.11 units or 0.17 standard deviations. Column (6) studies the effect on financial services – presence of commercial banks, cooperative banks, and agricultural credit societies. Dynastic rule reduces availability of these services by 0.14 standard deviations. Column (7) studies social welfare infrastructure, proxied by the public distribution shops that sell subsidised goods like wheat, rice, sugar and kerosene. Dynastic rule reduces the availability of social welfare public goods by 0.15

standard deviations. The entertainment index comprises availability of community centres, sports fields and clubs, and cinema halls. Dynastic rule reduces this by 0.16 standard deviations.

Finally, we study the effect of dynastic rule on electricity provision. This is both an important outcome in itself and a potential explanation for slower night lights growth in dynast-ruled areas. The electricity index comprises power supply for domestic, agricultural and commercial use in summer and winter. We find that dynastic rule has no impact on this index, suggesting that slower night lights growth in dynast-held constituencies is due to other reasons, such as less economic activity in the area (which is the typical interpretation).

5.3 Voter assessment of politician performance

The previous sections illustrate how dynastic rule has negative effects on local economic activity and worsens public good provision on a number of dimensions. It is likely that voters care about these outcomes, but it is possible that dynasts perform significantly better on other aspects of governance that these outcomes do not capture. Our next measure of dynastic performance – voters’ self-reported assessments of their MP’s performance on various issues – does not suffer from this flaw. On the other hand, it is hindered by all the issues faced by subjective outcomes – priming, desirability effects, and so on, but one might perhaps expect these biases to favour political dynasties in several situations, causing voters to be biased towards giving dynasts good reviews. On the other hand, if dynasticism is viewed – like corruption, as ubiquitous but a social scourge – then voters might be biased against dynasts in their assessment.

We begin by presenting some summary statistics on voters’ preferences and assessments. Table 7 shows the importance that voters place on different aspects of an MP’s performance. Several things are noteworthy. First, voters seem to value broad-based general public goods the most highly – “better employment opportunities”, “better public transport”, “better roads”, “better electric supply” and “drinking water” are the 5 concerns with the highest average rating. As a sanity check on the quality of the data, we find that rural voters do not care at all about urban issues like “traffic congestion” and “facilities for pedestrians” while urban voters do not care at all about rural issues like “agricultural loan availability” or “electricity for agriculture”. However, besides these, tables 8 and 9 show

that there are surprisingly few differences on this between rural and urban voters. Even in rural areas, voters rate distributional issues like “subsidy for seeds and fertiliser”, “better price realisation for farm products” and “electricity for agriculture” as much less important than general public good provision. Moreover, surprisingly, there are no differences between general, OBC and SC/ST voters on the importance of reservation. If anything, there is evidence that general caste voters view the issue as more important.

Table 11 presents baseline results of the effects of dynastic rule based on voter assessments. Column (1) shows that voters assess dynastic politicians to perform significantly worse – by 0.28 score points, or 0.58 standard deviations, an effect that would take a politician performing at the median level and reduce him to a politician at the 32nd percentile. Column (2) shows that this effect is driven by non-coethnic voters (ie. voters of a different caste or religion) – the treatment effect is larger than in column (1), 0.37 score points or nearly 0.78 standard deviations. Column (3) shows that co-ethnic voters subjectively assess dynastic politicians to perform just as well as non-dynastic politicians. Note here that this is not simply a statement about ethnic bias in processing political information about performance, which other authors have documented, notably Adida et al. (2017). Columns (2) and (3) tell us that *only non-coethnics* think dynastic politicians are bad, which suggests that dynastic politicians are able to extract more loyalty from coethnics. It is possible that dynasts foster stronger clientelistic relationships, but we have no clear evidence of this.

Table 12 presents heterogeneous treatment effects, and generally shows that there are no significant differences along gender lines (columns 1 and 2), education (columns 5 and 6) and geographic location ie rural vs urban (columns 3 and 4).

Finally, table 13 shows that voters are more likely to believe that dynasts are powerful and that they spent generously in the election. Column (1) shows that voters are 37pp more likely to say that dynastic politicians have spent generously in elections (an effect size of 0.7 standard deviations). Column (2) shows that voters are 45pp more likely to regard dynasts as “powerful”, almost a 1 standard deviation increase from the baseline level. These results support the idea that dynasts may be playing clientelistic politics. More evidence is required before we can conclude that this is the mechanism driving the negative impacts of dynastic rule.

6 Mechanisms

We now evaluate mechanisms that can explain our baseline result – ie. why is dynastic rule bad for development? We can broadly classify mechanisms into two categories – those which emphasise that dynasts are “bad types” (adverse selection) and those which emphasise how dynasts may have “bad incentives” (moral hazard).

First, we consider whether dynastic and non-dynastic candidates differ in observable characteristics that could be responsible for their different levels of performance. We collect data on education, criminality and wealth from affidavits that candidates are mandated to file when they contest elections. Table 2 presents estimates from RD regressions of candidate characteristics against the dynastic vote margin. Figures 11 and 12 and column (1) of table 2 show that dynasts and non-dynasts have similar levels of education. Figures 13 and 14 and column (2) of table 2 show that dynastic politicians are neither more nor less likely to be criminal politicians. And column (3) of table 2 as well as figures 15 and 16 show covariate balance on wealth. This suggests that differences between dynastic and non-dynastic politicians in education, criminality and wealth are not responsible for the negative effects of dynastic rule. While we find balance on these covariates, it is of course possible that there is imbalance on other unobserved characteristics (eg. “leadership ability”) that materially affects governance.

Second, we examine whether dynastic victories affect political competition in subsequent elections. Recent work suggests that some portion of the incumbency advantage that is typically observed in many democracies may be due to a “scare-off effect”, where potential challengers are deterred from standing from a strong incumbent. It is possible that dynasts are perceived as having strong electoral advantages – name recognition and a family brand that the candidate can campaign and cash in on, resources from the party apparatus and loyalty from local party workers. We investigate whether there is evidence of a “scare-off” effect after dynastic victories. We use two measures of political competition – the number of candidates who contest and the victory margin (ie. the difference in vote share between the winner and runner-up) in each election. Figure 17 shows that there is no effect of dynastic victory in election t on the number of candidates who run in $t + 1$. Figure 18 shows that there

is no effect of dynastic victory in time t on the vote margin in $t + 1$. These graphs provide evidence against the explanation that negative effects of dynastic rule are due to declining political competition as dynasties become entrenched after an initial victory.

Third, we investigate whether dynasts are more likely to use their position for rent-seeking. As discussed, dynasties may be able to use their clout and connections with the state machinery to divert resources and other programs and projects to their constituencies, but they may skim rent from these at the same time. Because all candidates for public office must file their assets and liabilities at each election, we are able to construct measures of personal wealth gain (of the candidate and his/her relatives) over the election cycle. We study whether dynasts have larger wealth gain on average. Figure 19 shows that there are on average no differences in asset gain between dynastic and non-dynastic MPs. This suggests that greater rent-seeking on the part of dynastic MPs cannot explain the negative effects of dynastic rule.

Fourth, dynasts may exert lower effort, because they are insured against political failure by familial control of the party. Even if they perform poorly, their family members may use their clout to ensure they get a party ticket in the next election. We use measures of parliamentary participation to measure effort levels – attendance, questions asked, participation in parliamentary debates and sponsorship of private member bills. Figures 20-24 present the results. Figure 20 shows that there is no difference in parliamentary attendance between dynasts and non-dynasts. Figure 21 illustrates that if anything dynastic MPs ask more questions in parliament. Figure 22 shows that dynasts participate in fewer parliamentary debates non-dynast MPs, while Figure 23 shows no difference in the introduction of private member bills. Combining these various measures into an index of parliamentary effort (which is our preferred approach), we find that on average dynastic MPs do not exert more or less effort in parliament than non-dynastic MPs. Of course, we should be cautious in making welfare statements based on this result alone, as voters may value parliamentary representation more in some constituencies while other voters may appreciate the MP spending less time in parliament and more in the constituency. We also do not have data on the issues that MPs raise in parliament and whether these are germane to the interests of voters. However, with those caveats, we can say that we do not have prima facie evidence that the negative effect of dynastic rule is being driven by less effort

exerted by dynastic MPs in legislative activities.

7 Conclusion

Political dynasties are prevalent in most countries around the world, and yet we have limited understanding of their consequences for economic development. Economic theory is ambivalent: dynasts may behave more like “stationary bandits” and invest in their constituencies; but they may also have a chilling effect on political competition, which may reduce accountability and worsen governance. In this paper, we study the local economic developments of rule by a democratically-elected political dynasty. We show that dynasties are in general bad for economic development – growth slows by about 6.5pp per year, public good provision is worse, and voters assess dynastic MPs to perform worse, particularly non-coethnic voters.

Having verified this empirical fact with several robustness checks, we attempt to understand why dynasts are bad for development. We test several candidate mechanisms, including whether dynasts are disproportionately rent-seeking, reduce political competition or exert lower effort. We do not find strong evidence for any of these mechanisms, and in future work aim to better understand a theory of dynastic rule that explains why they are prevalent despite being bad for development.

References

- Adida, Claire, Jessica Gottlieb, Eric Kramon, and Gwyneth McClendon.** 2017. “Overcoming or Reinforcing Coethnic Preferences? An Experiment on Information and Ethnic Voting.” *Quarterly Journal of Political Science*.
- Banerjee, Abhijit, and Lakshmi Iyer.** 2005. “History, Institutions, and Economic Performance: The Legacy of Colonial Land Tenure Systems in India.”
- Burkart, Mike, Fausto Panunzi, and Andrei Shleifer.** 2003. “Family firms.” *The Journal of Finance*, 58(5): 2167–2202.

- Chandra, Kanchan.** 2016. *Democratic Dynasties: State, Party and Family in Contemporary Indian Politics.* Cambridge University Press.
- Chaudhury, Nazmul, Jeffrey Hammer, Michael Kremer, Karthik Muralidharan, and F Halsey Rogers.** 2006. "Missing in action: teacher and health worker absence in developing countries." *The Journal of Economic Perspectives*, 20(1): 91–116.
- Costinot, Arnaud, Dave Donaldson, and Cory Smith.** 2016. "Evolving comparative advantage and the impact of climate change in agricultural markets: Evidence from 1.7 million fields around the world." *Journal of Political Economy*, 124(1): 205–248.
- Dal Bó, Ernesto, Pedro Dal Bó, and Jason Snyder.** 2009. "Political Dynasties." *The Review of Economic Studies*, 76: 115–142.
- Eggers, Andrew C, Anthony Fowler, Jens Hainmueller, Andrew B Hall, and James M Snyder.** 2015. "On the validity of the regression discontinuity design for estimating electoral effects: New evidence from over 40,000 close races." *American Journal of Political Science*, 59(1): 259–274.
- Henderson, J Vernon, Adam Storeygard, and David N Weil.** 2012. "Measuring economic growth from outer space." *American Economic Review*, 102(2): 994–1028.
- Imbens, Guido W, and Thomas Lemieux.** 2008. "Regression discontinuity designs: A guide to practice." *Journal of econometrics*, 142(2): 615–635.
- Lee, David S.** 2008. "Randomized experiments from non-random selection in US House elections." *Journal of Econometrics*, 142(2): 675–697.
- Nath, Anusha.** 2015. "Bureaucrats and Politicians: How Does Electoral Competition Affect Bureaucratic Performance?"
- Querubin, Pablo.** 2013. "Political Reform and Elite Persistence: Term Limits and Political Dynasties in the Philippines."
- Querubin, Pablo.** 2015. "Family and Politics: Dynastic Incumbency Advantage in the Philippines." *Quarterly Journal of Political Science*.

Rossi, Martin A. 2014. "Family business: Causes and consequences of political dynasties."

Smith, Daniel Markham. 2012. "Succeeding in politics: dynasties in democracies."

Tantri, Prasanna L, and Nagaraju Thota. 2017. "How Do Political Dynasts Perform?: Evidence From India."

Figure 1: India at night, 1996

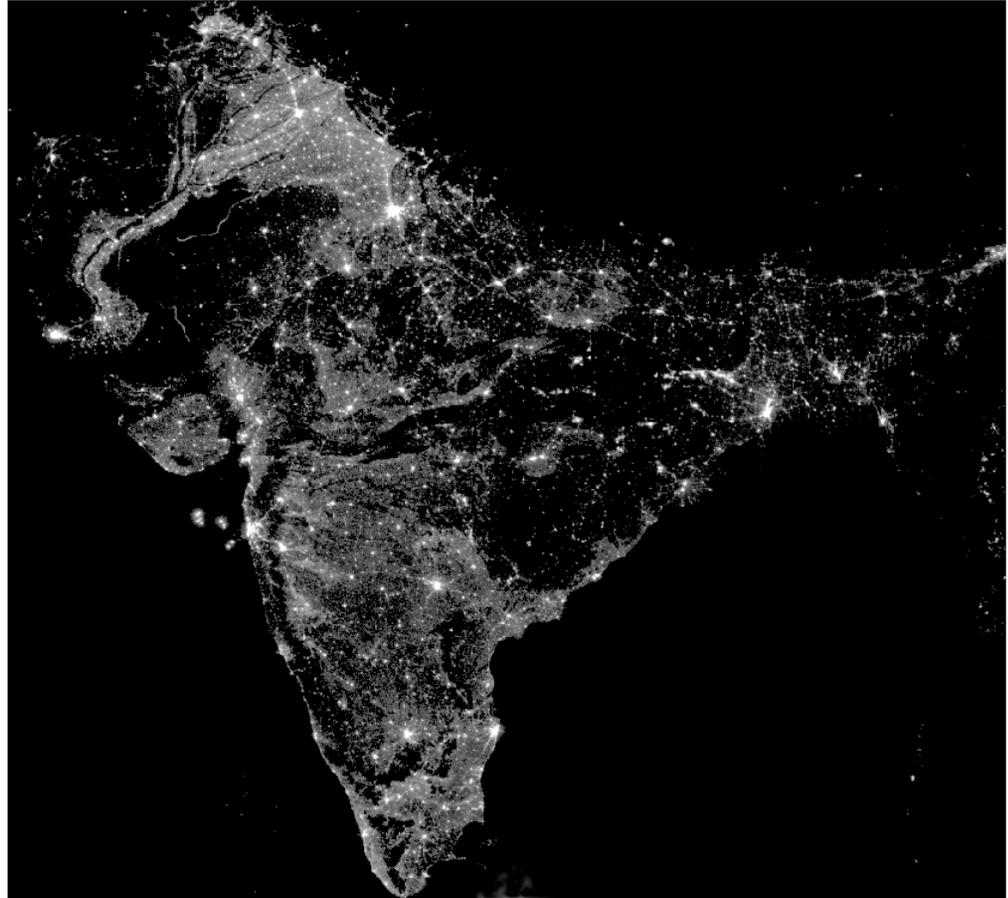


Figure 2: India at night, 2013

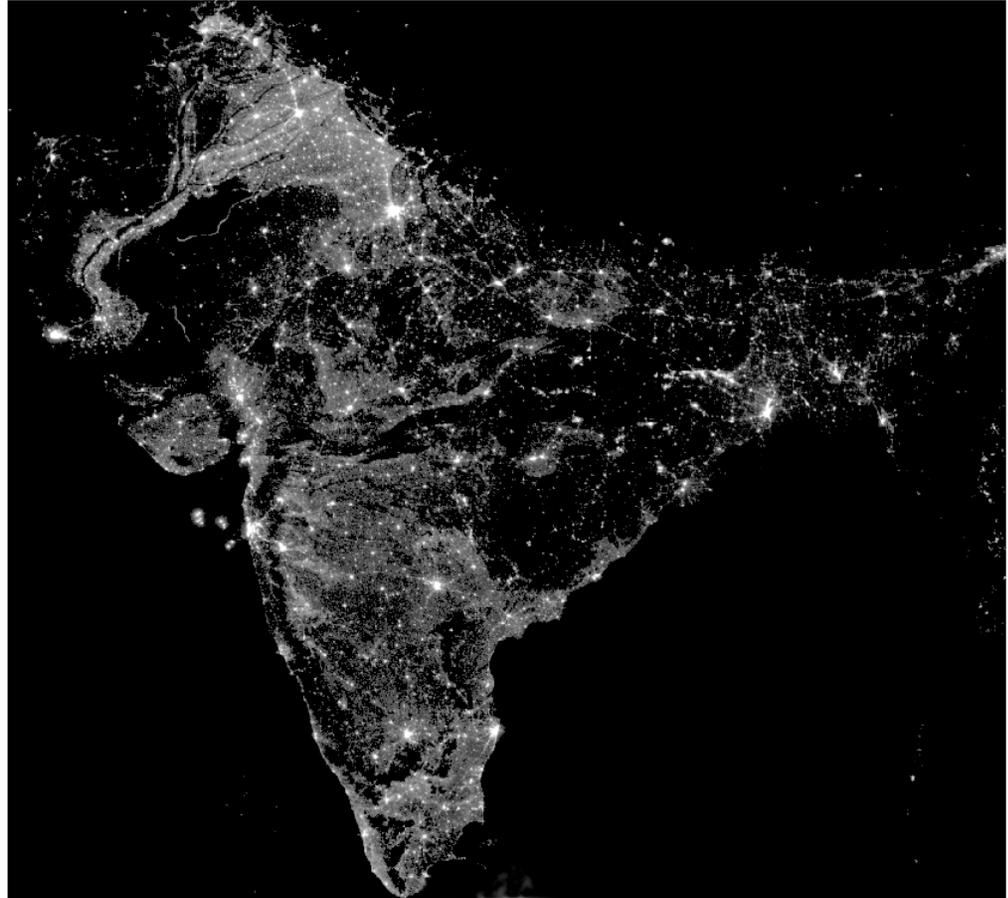


Figure 4: Balance – night lights growth in pre-period

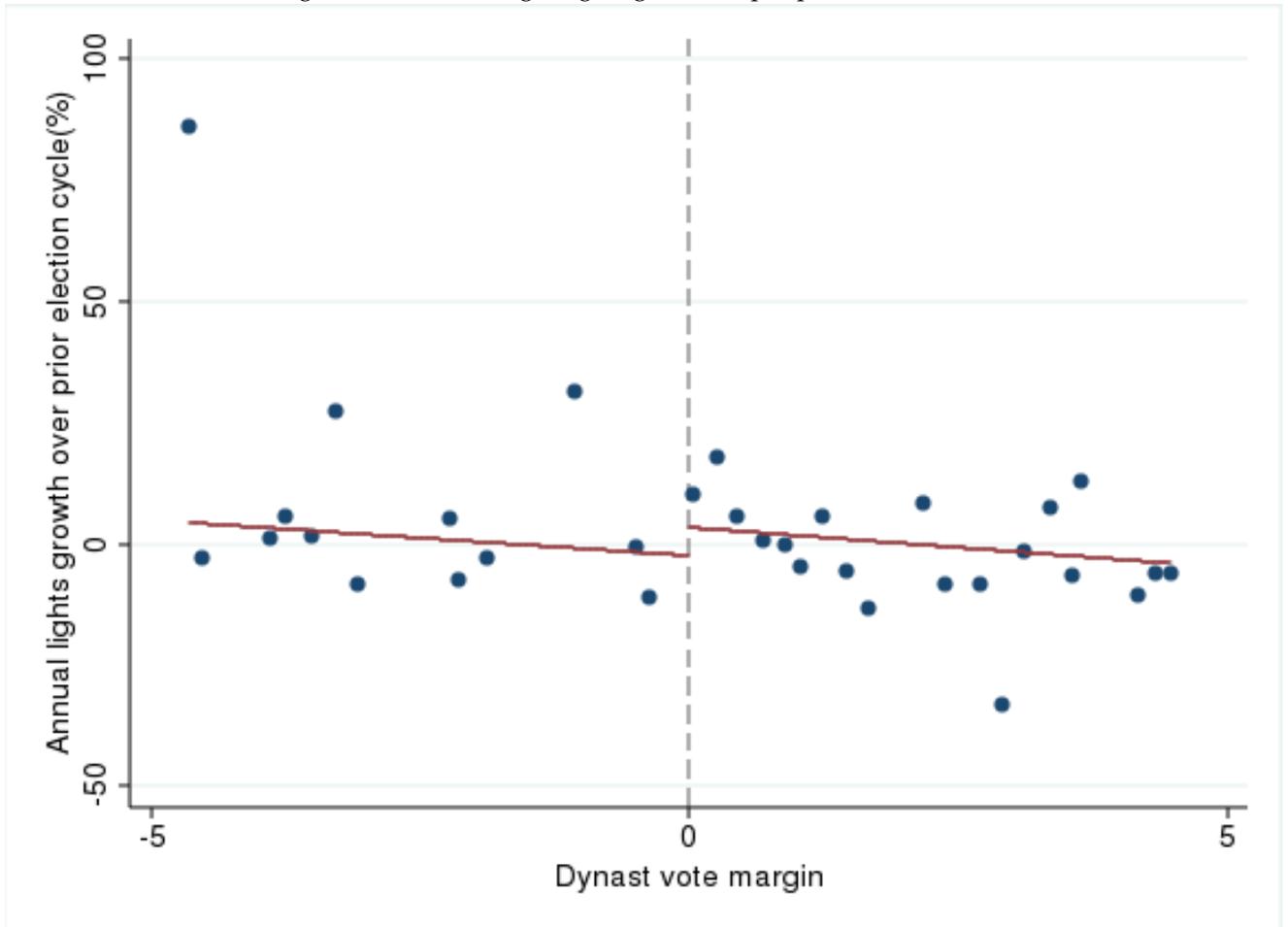


Figure 5: Balance – constituency size

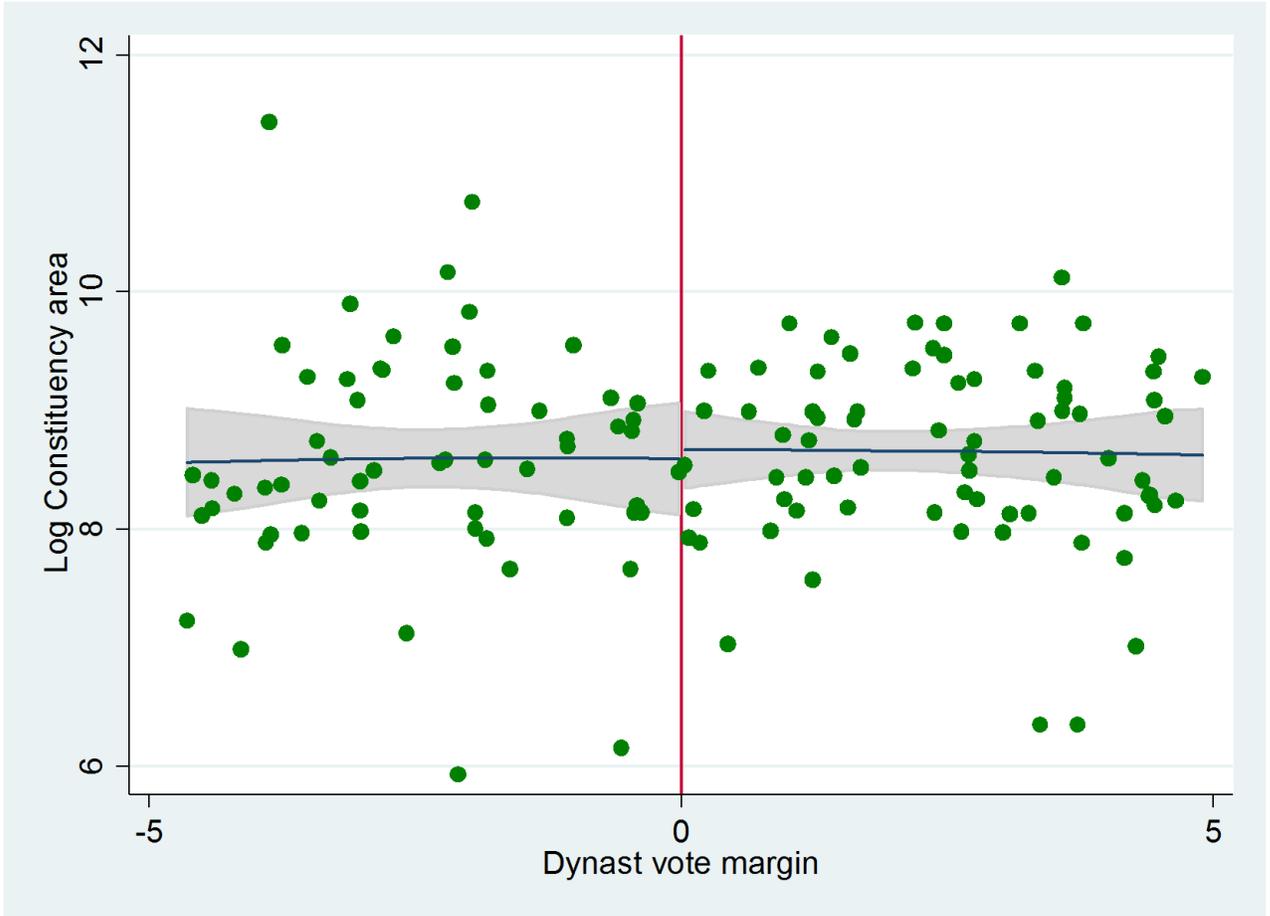


Figure 6: Baseline RD results on night lights (constituency level)

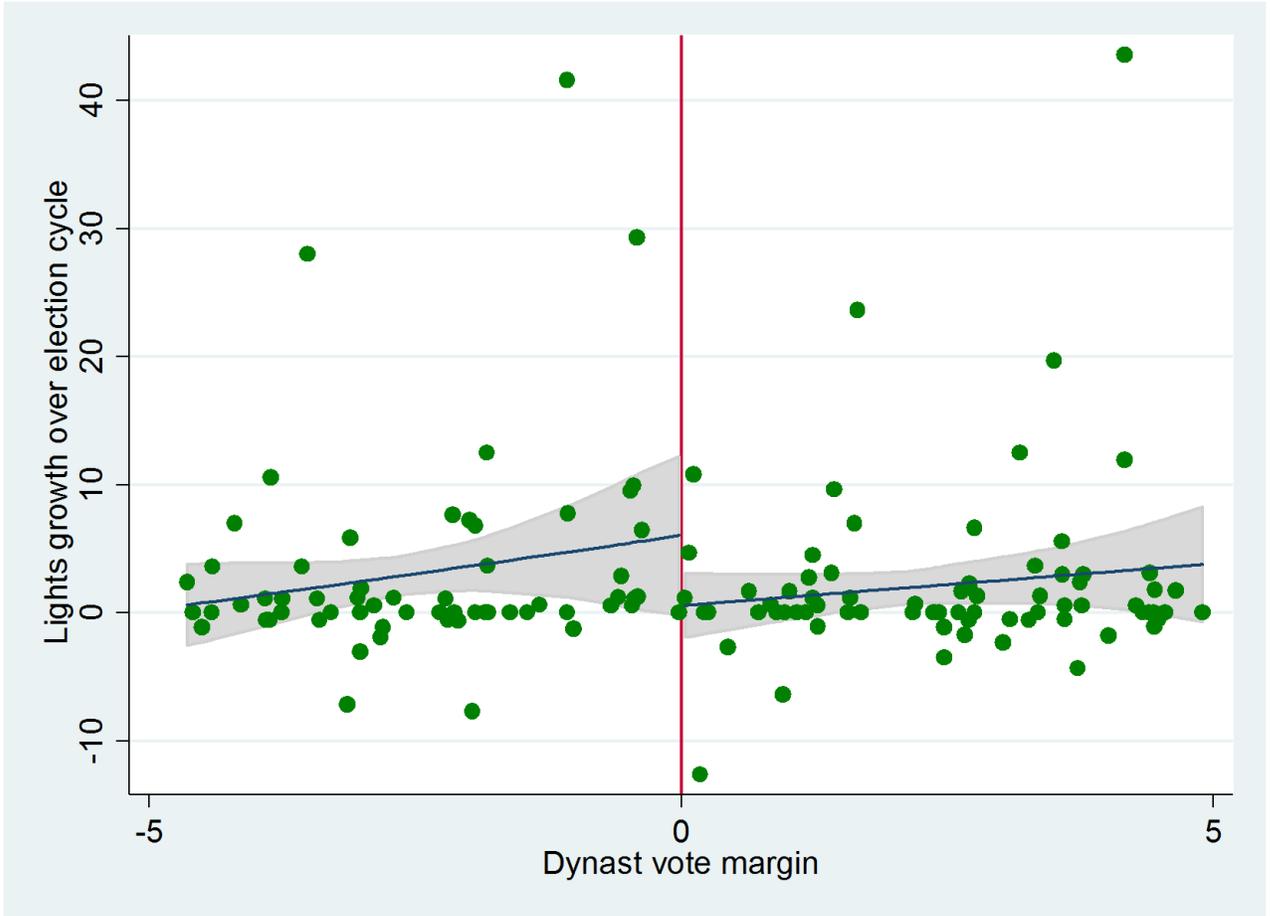


Figure 7: RD results on night lights (village-level)

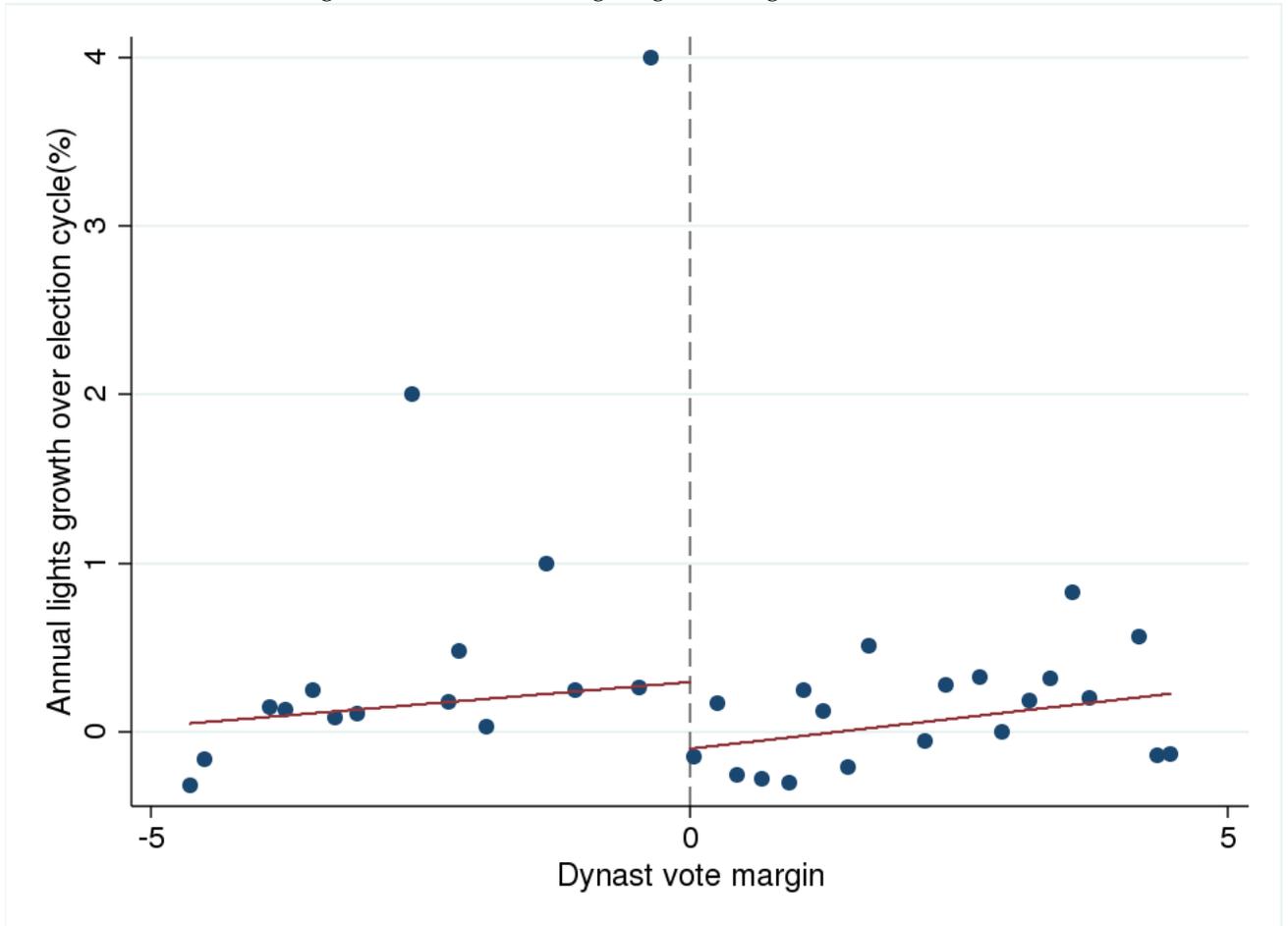


Figure 8: RD result on night lights (village-level) w/different bandwidths



Figure 9: RD result on night lights (village-level) w/ FEs

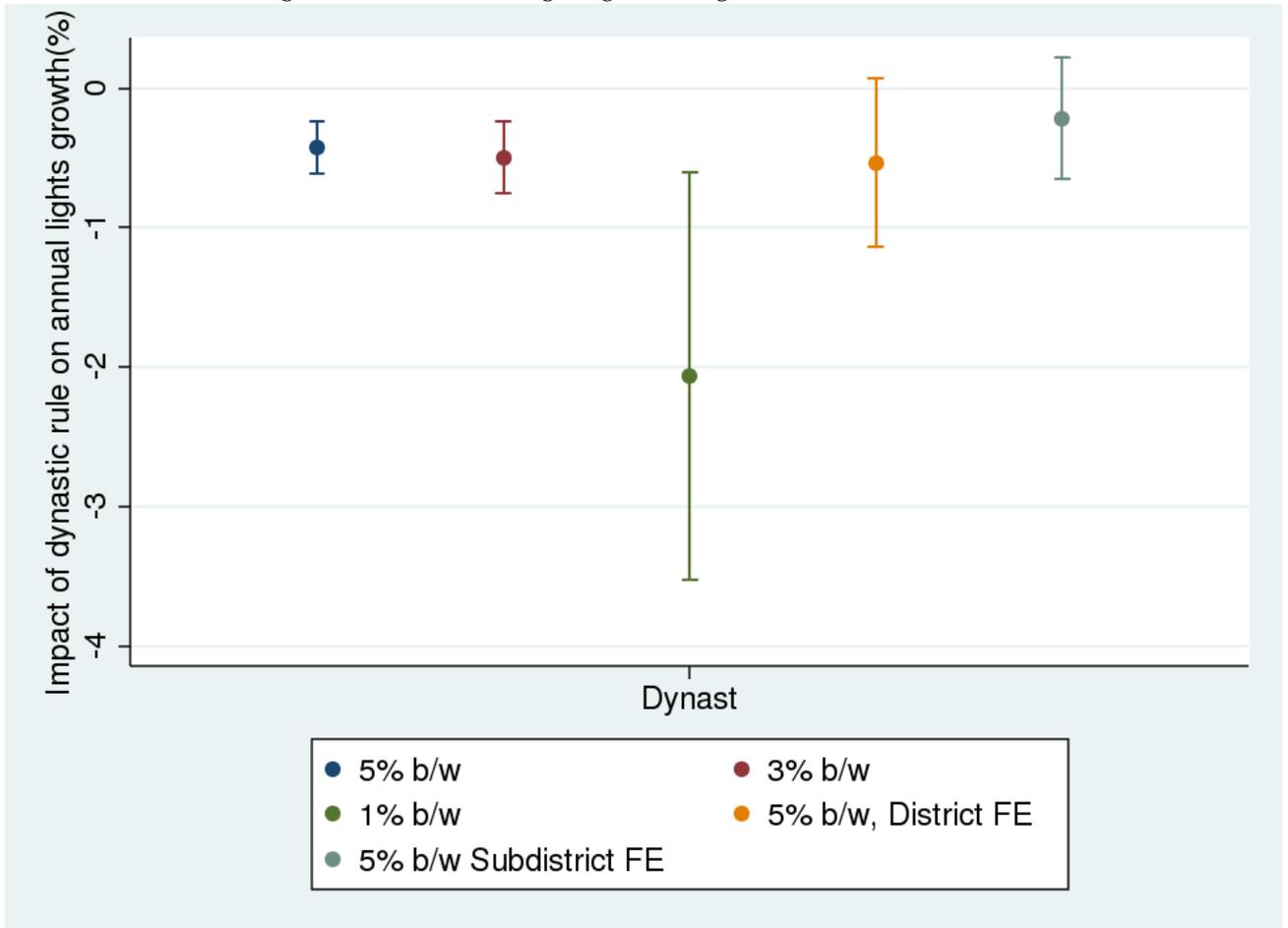


Figure 10: Placebo RD – village level

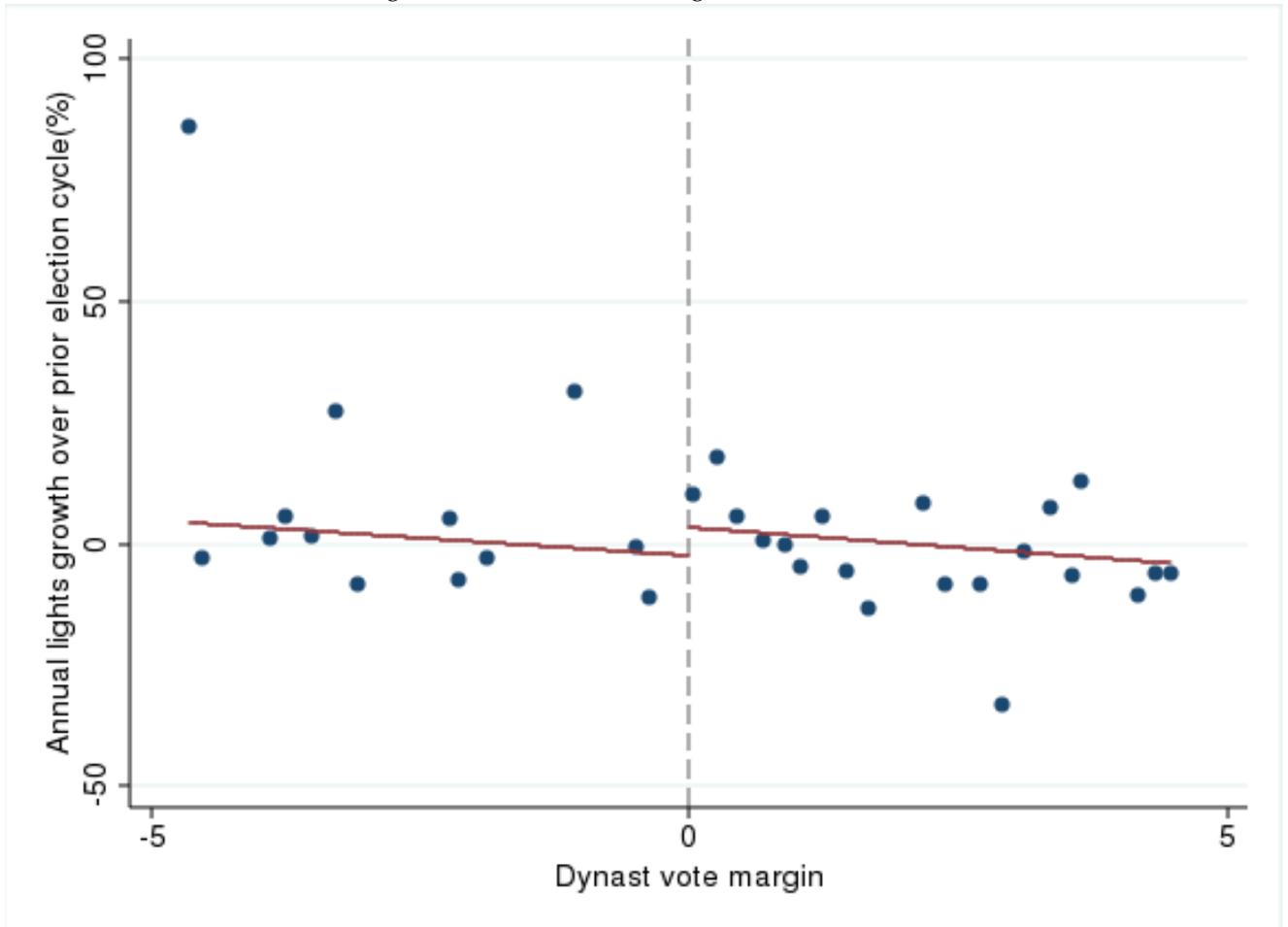


Figure 11: Candidate balance – Education

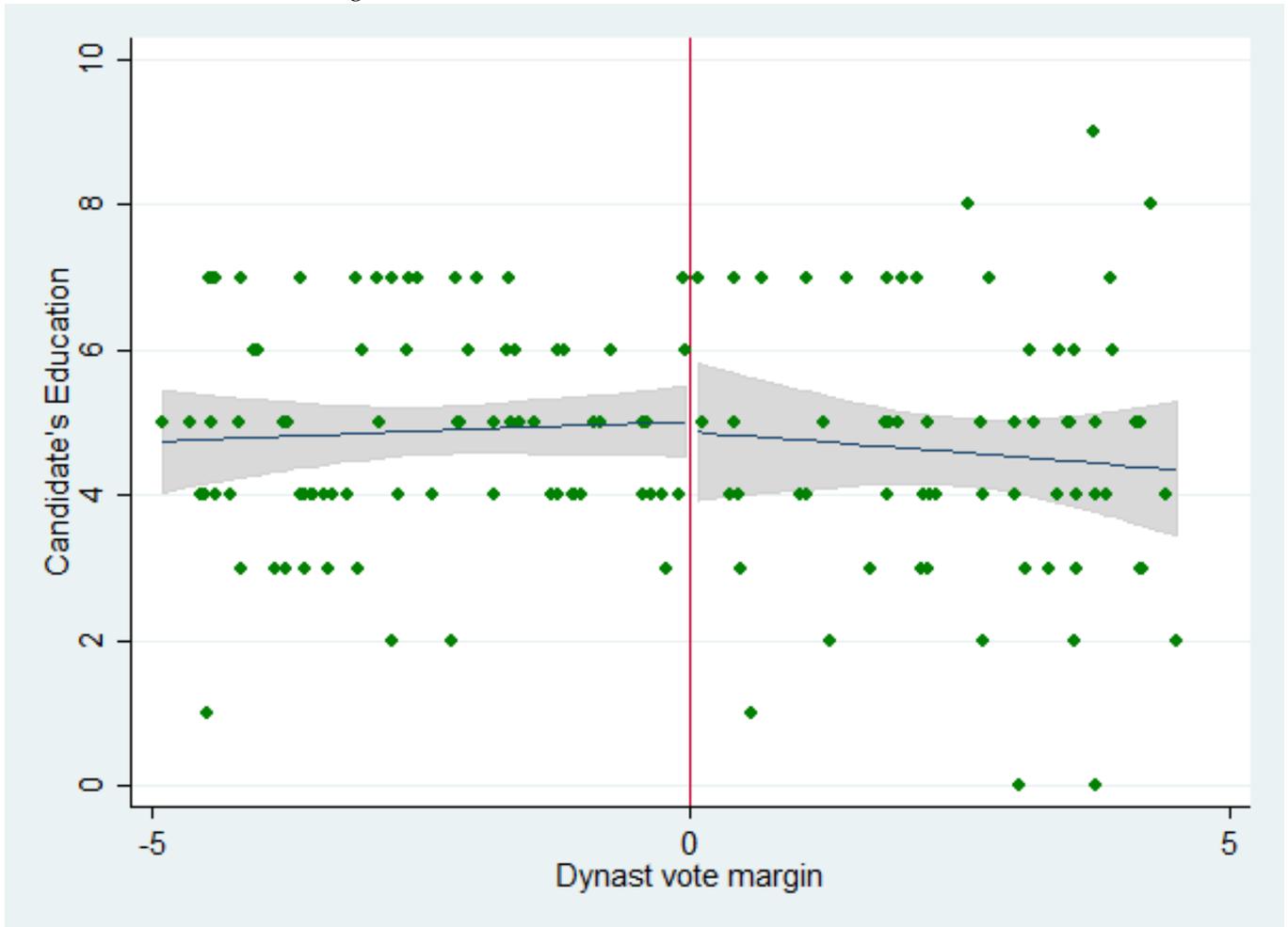


Figure 12: Candidate balance – Education (different bandwidths)

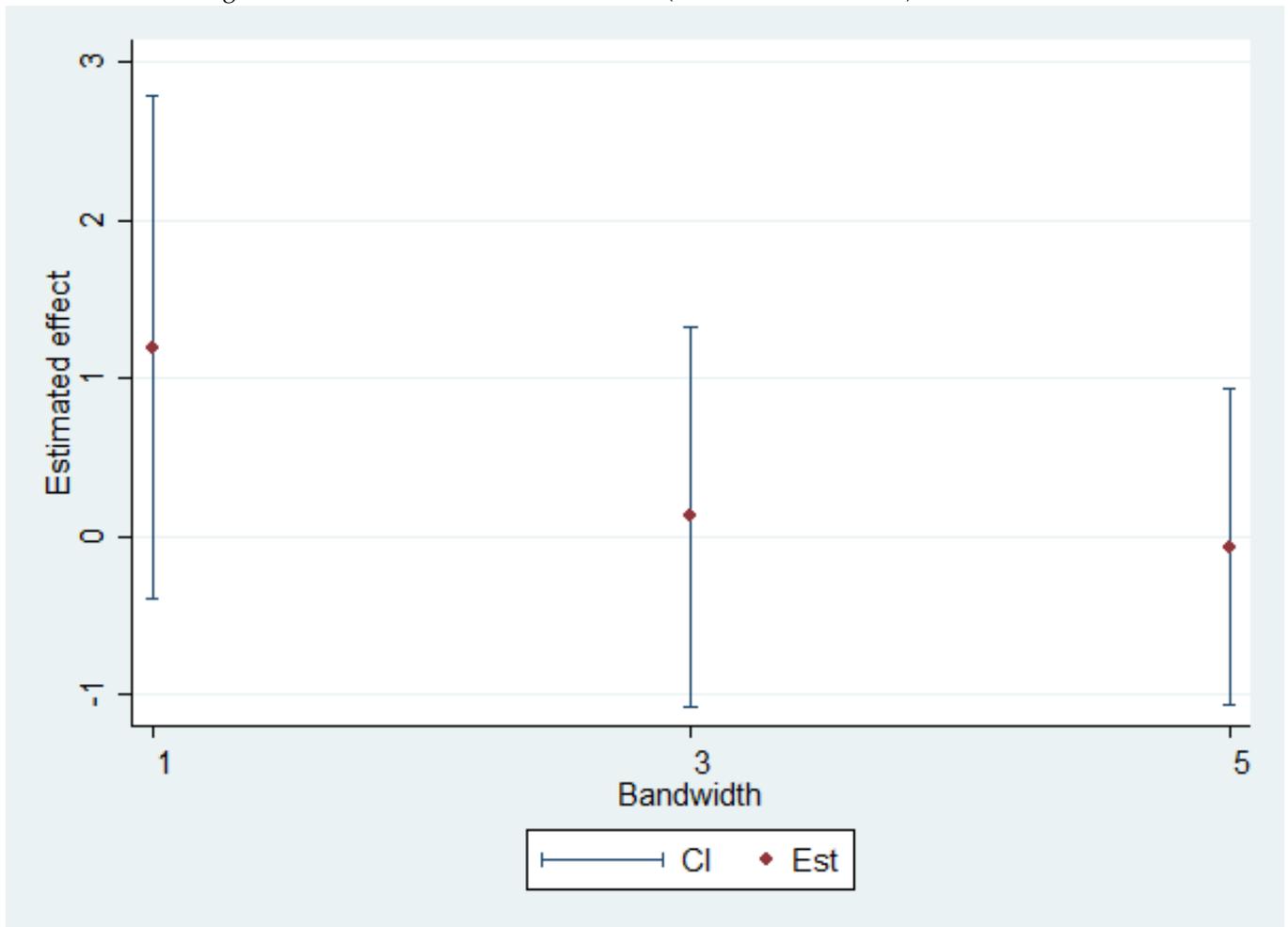


Figure 13: Candidate balance – criminality

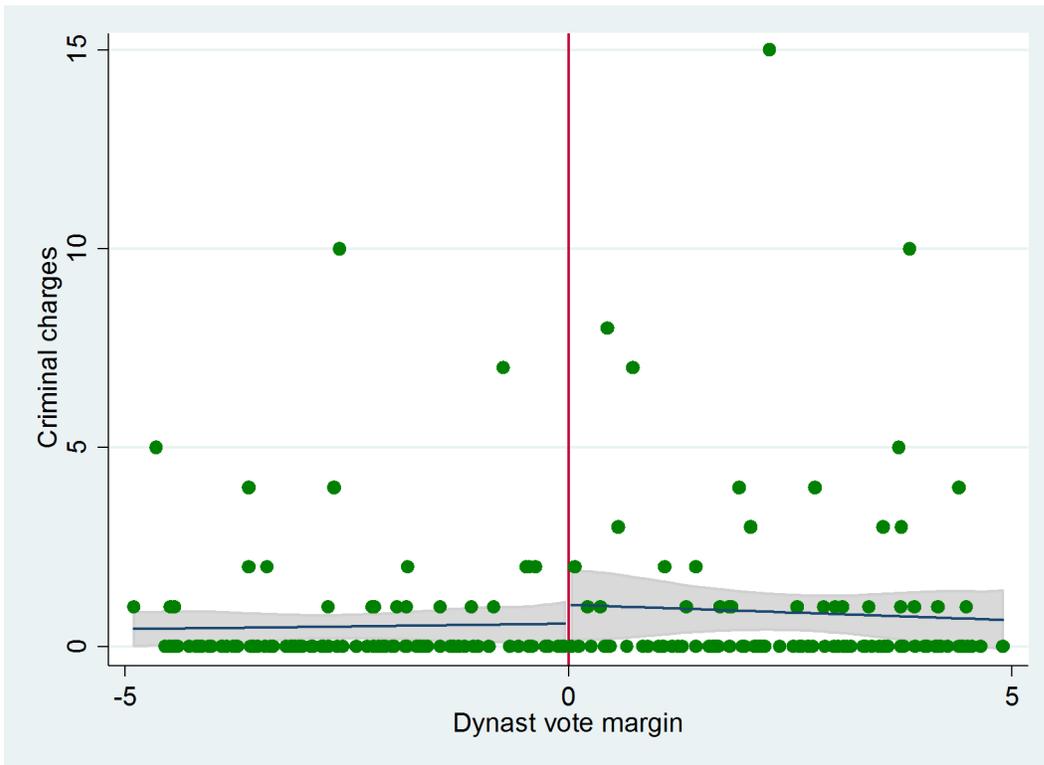


Figure 14: Candidate balance – criminality (different bandwidths)

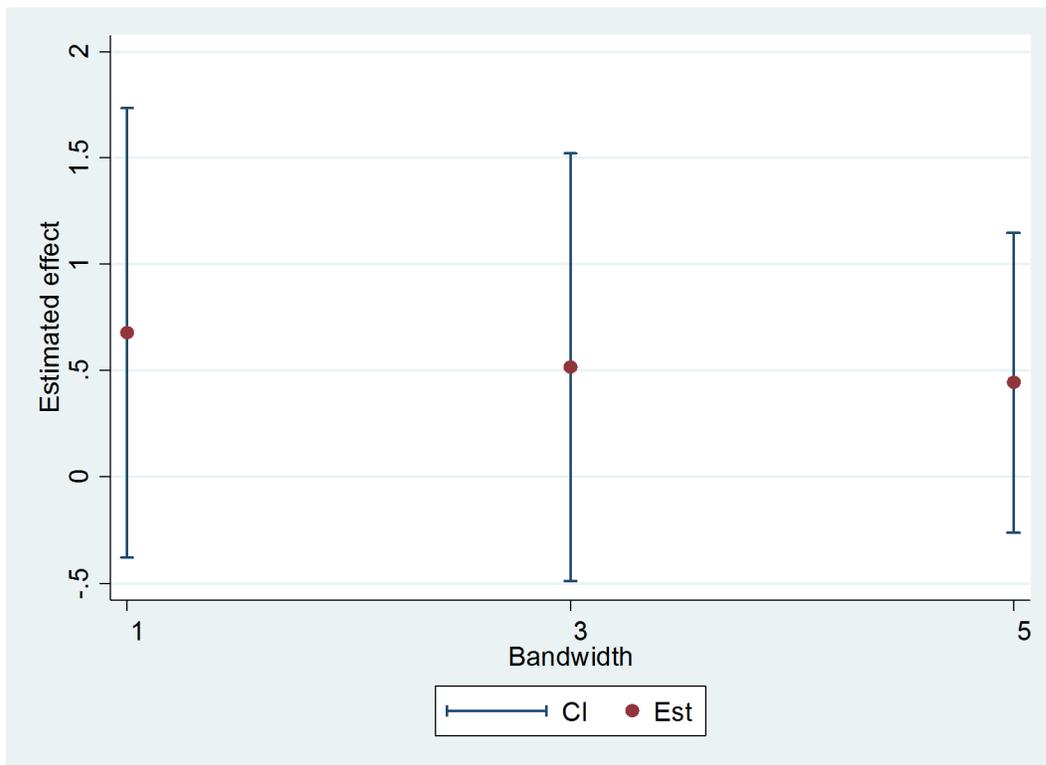


Figure 15: Candidate balance – wealth

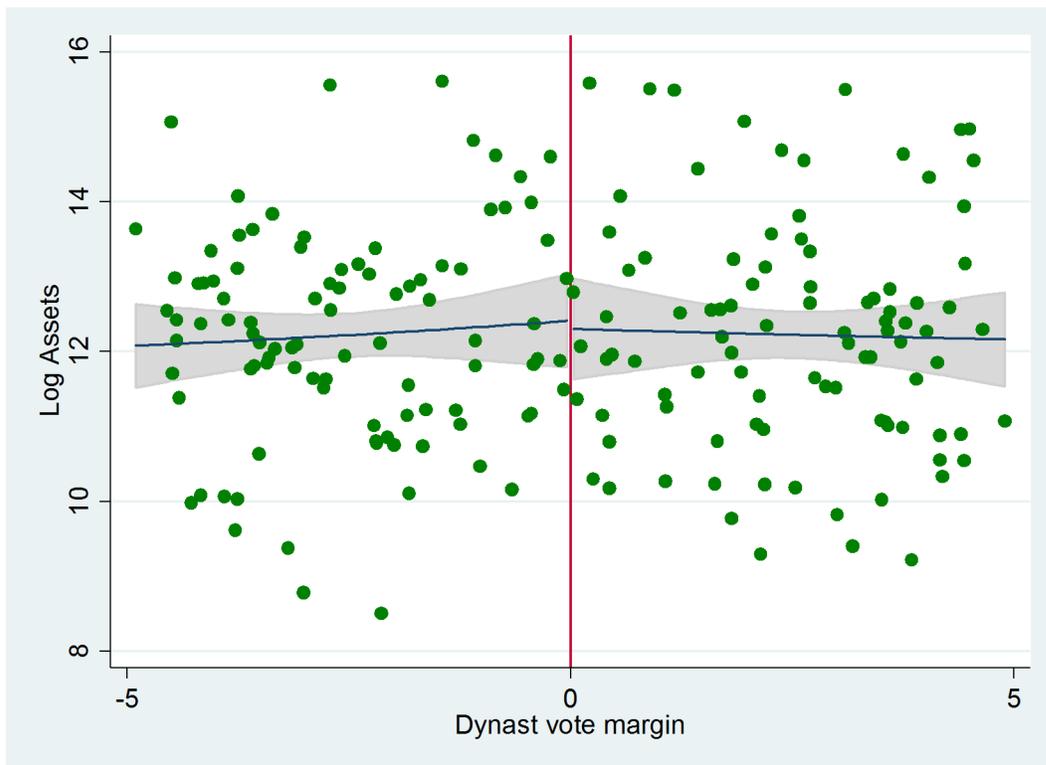


Figure 16: Candidate balance – wealth (different bandwidths)

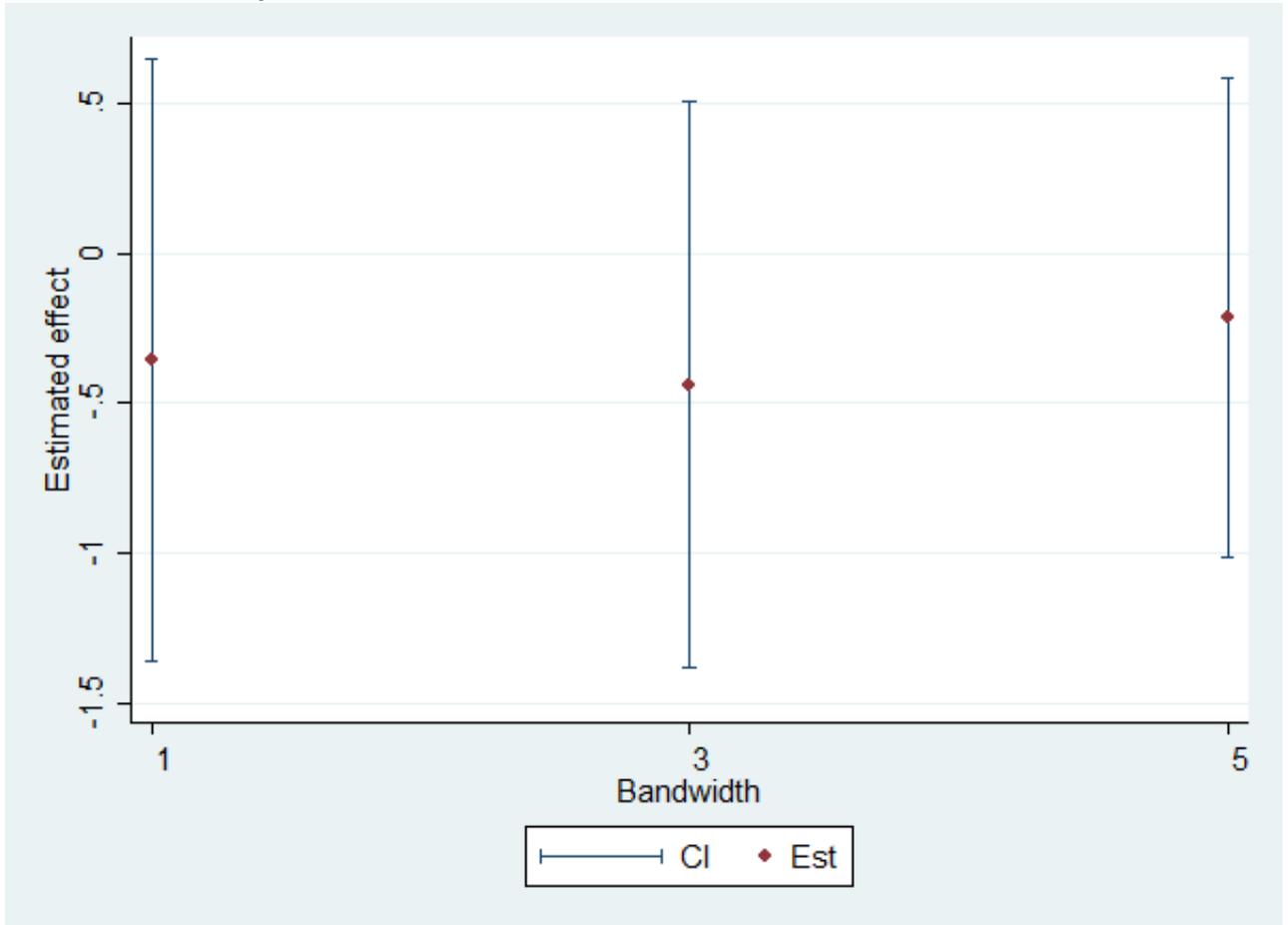


Figure 17: Mechanism – political competition (# of candidates in next election)

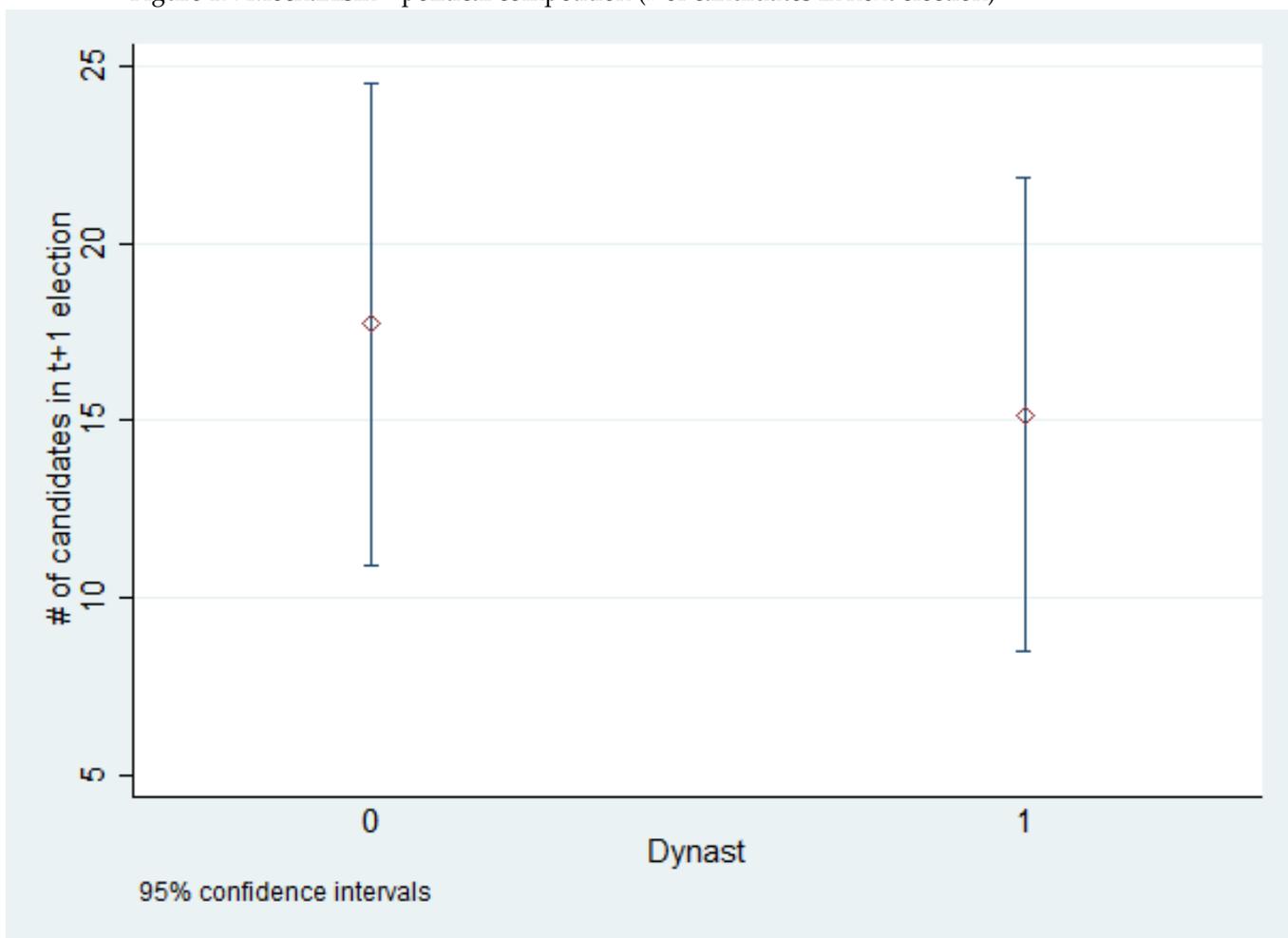


Figure 18: Mechanism – political competition (vote margin in next election)

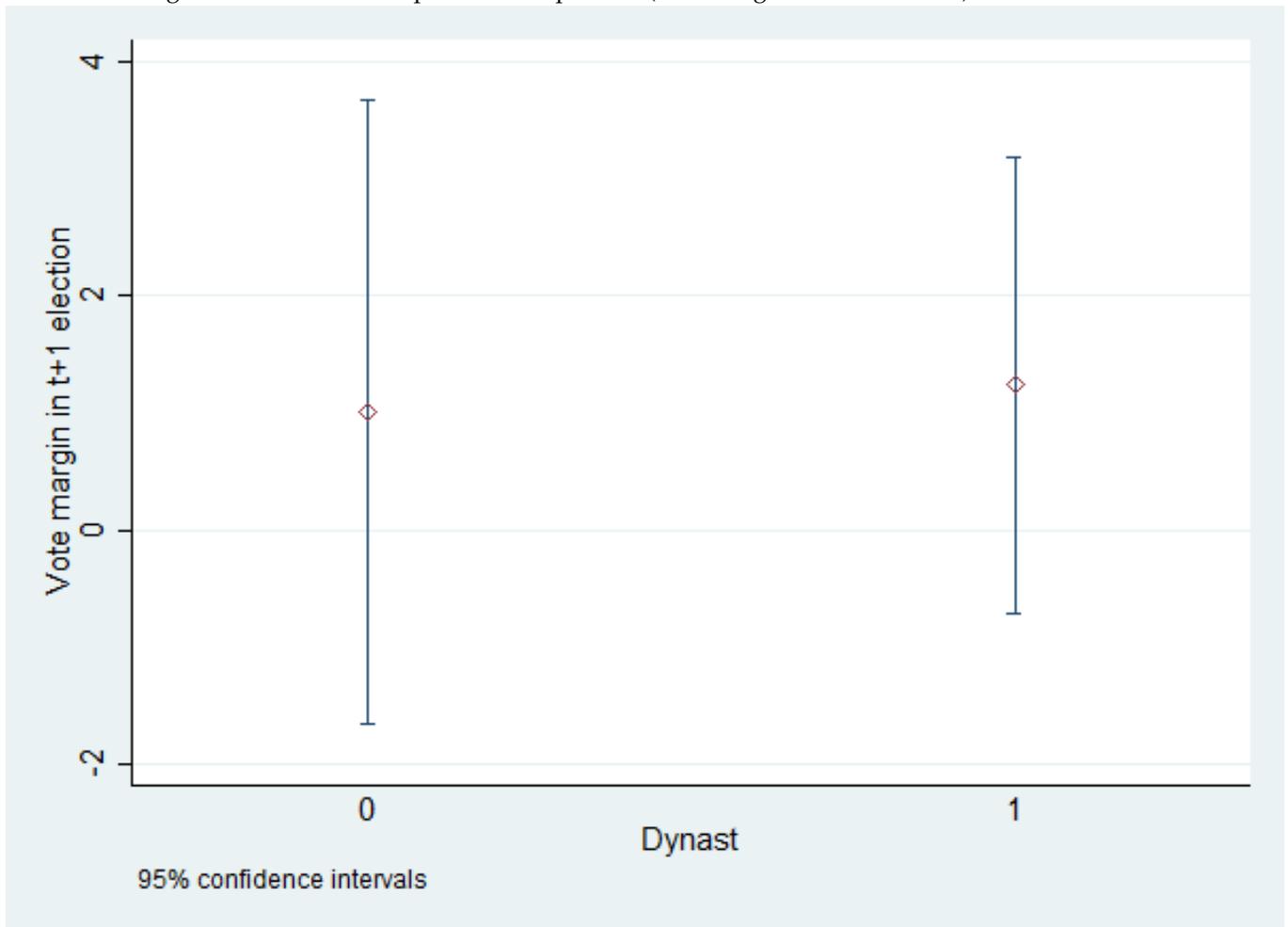


Figure 19: Mechanism – rent seeking (asset gain between election cycles)

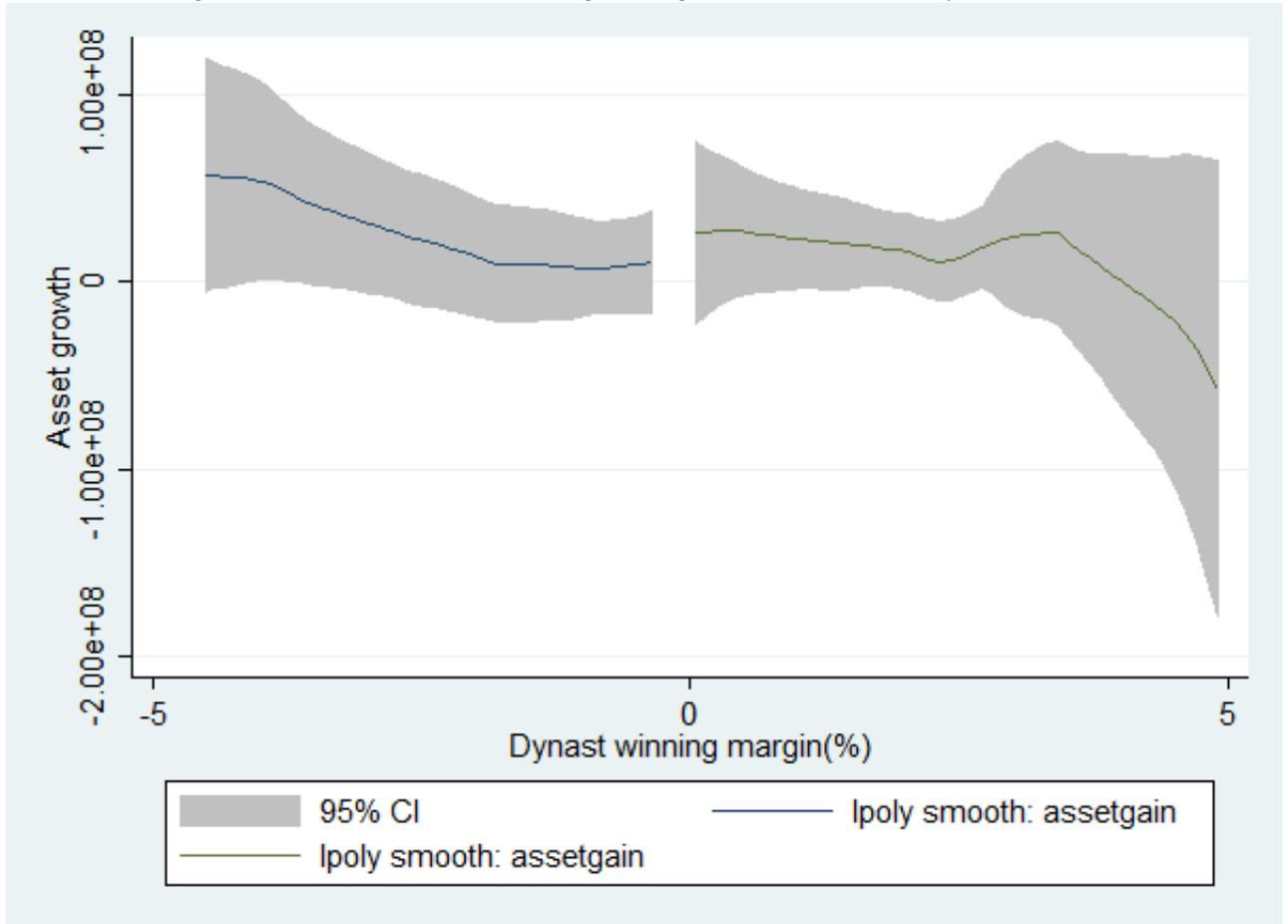


Figure 20: Mechanisms – politician effort (attendance in Parliament)

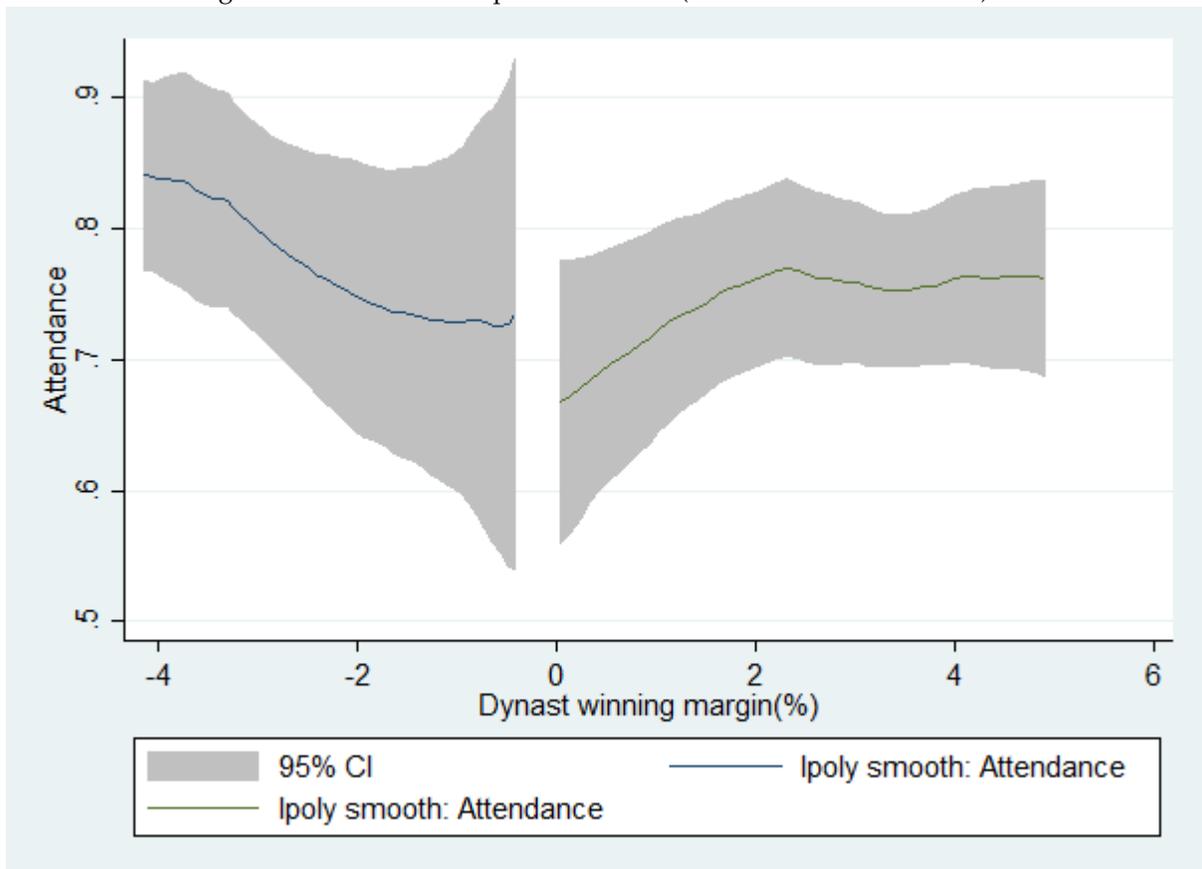


Figure 21: Mechanisms – politician effort (questions asked in Parliament)

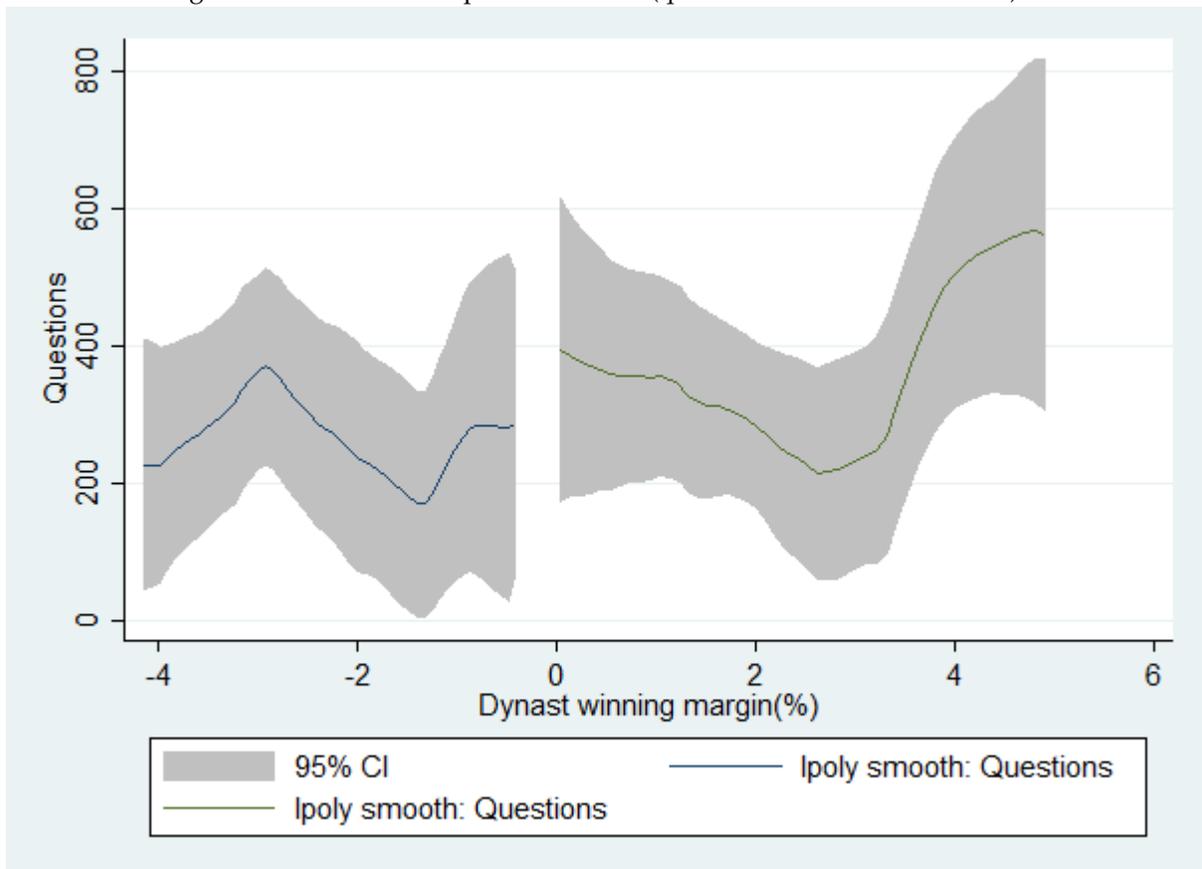


Figure 22: Mechanisms – politician effort (participation in parliamentary debates)

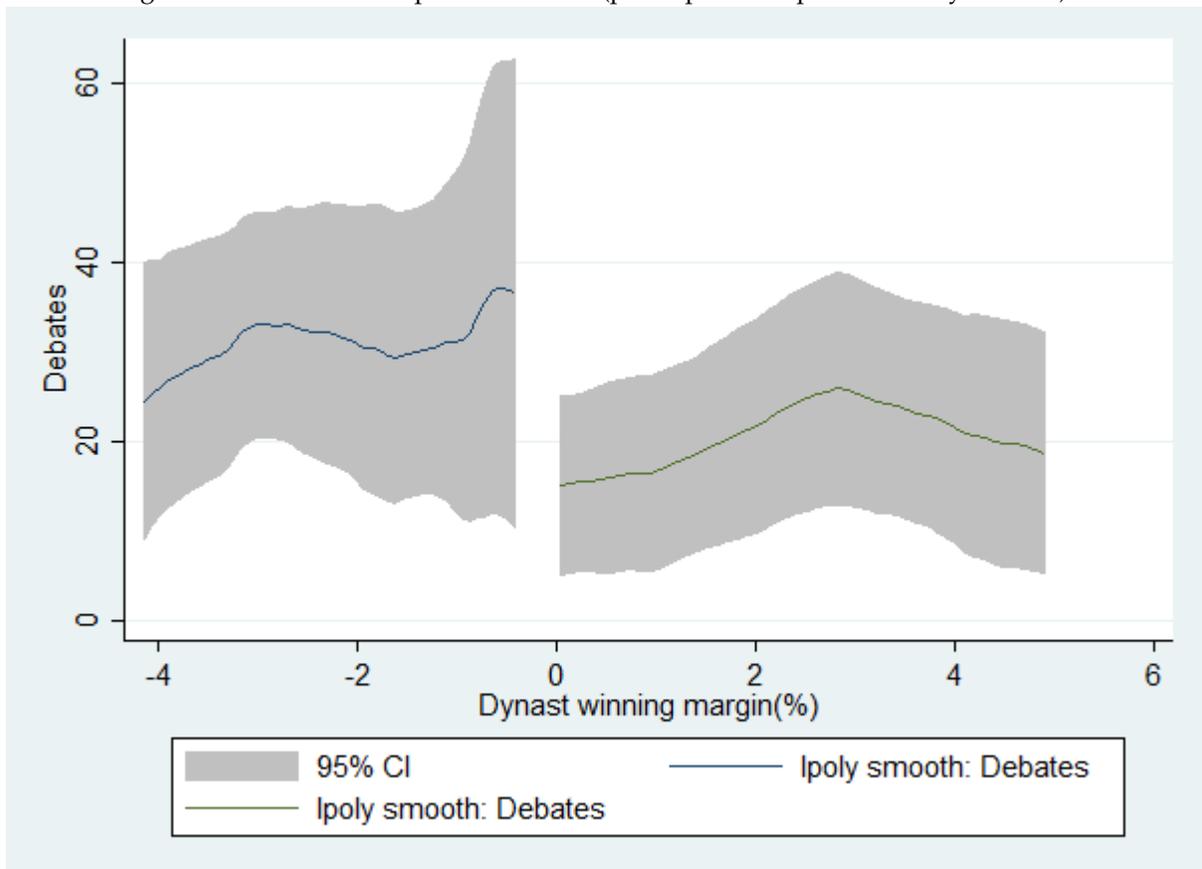


Figure 23: Mechanisms – politician effort (introduced private member bill)

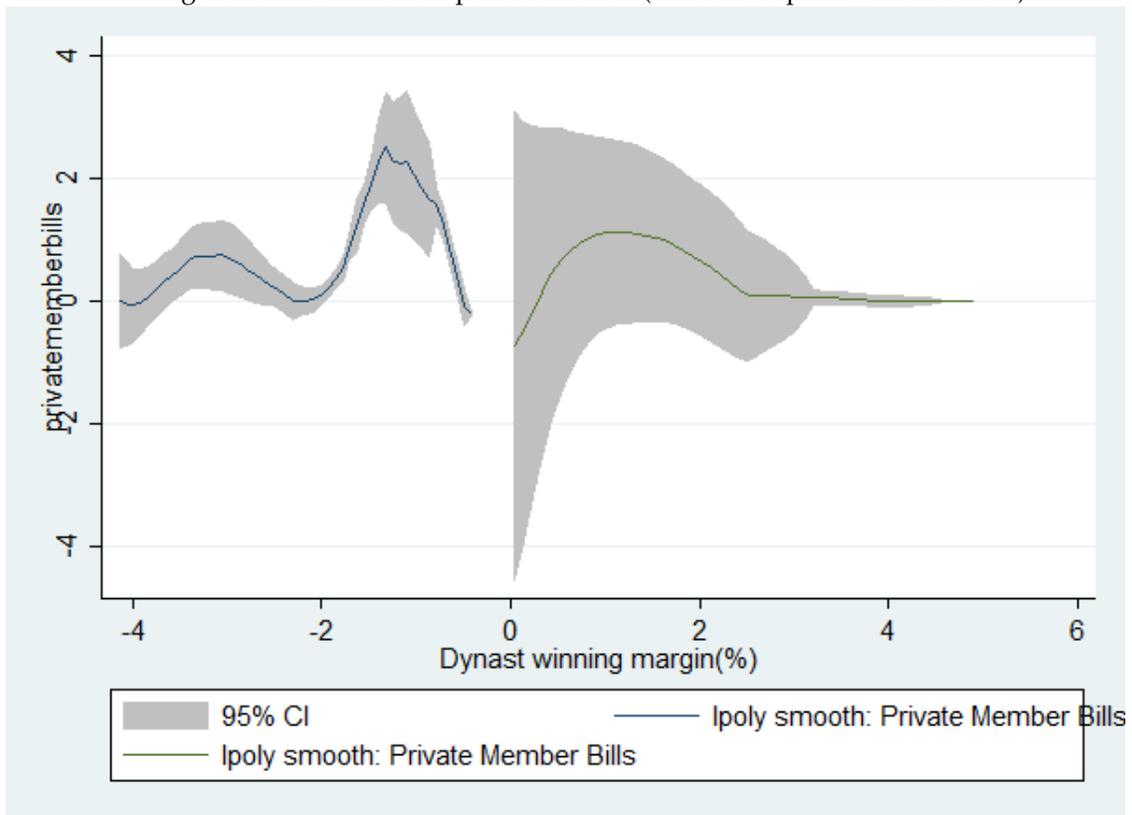


Figure 24: Parliamentary effort index

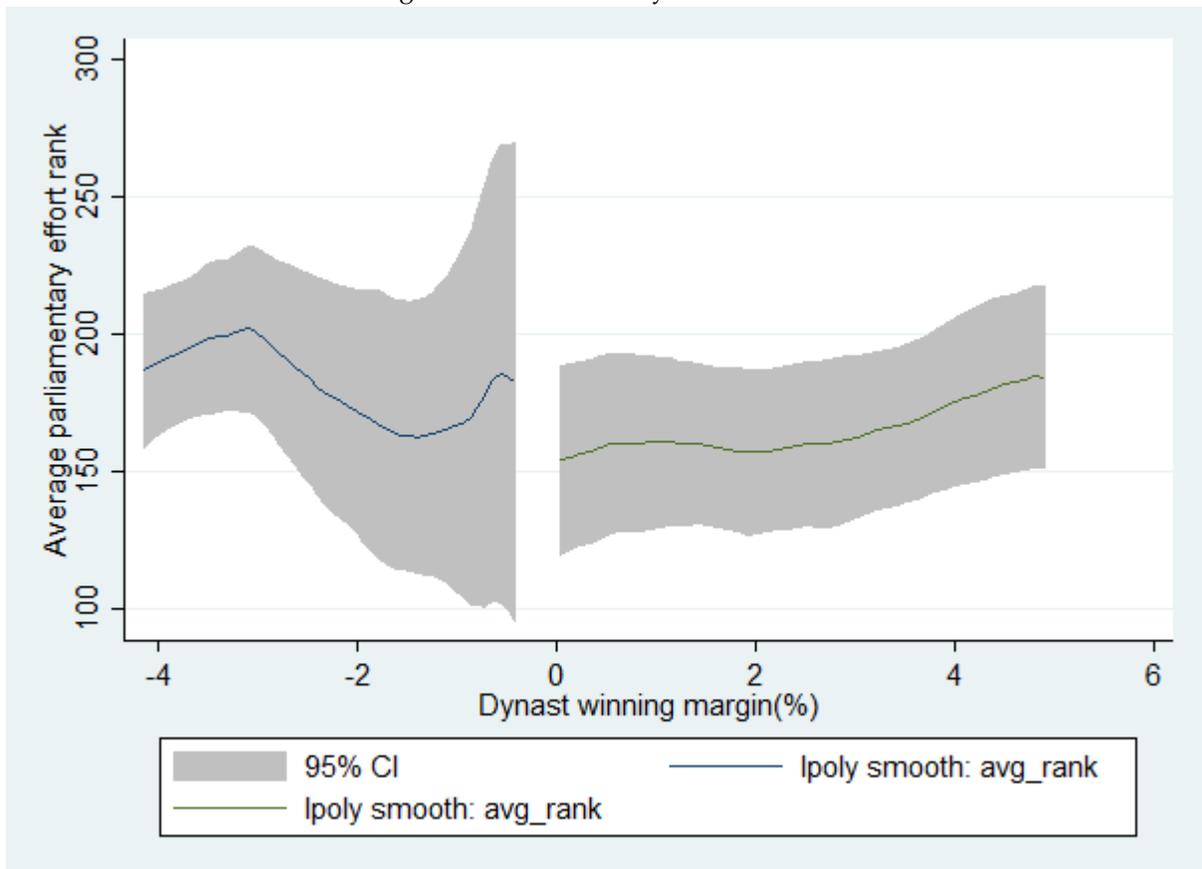


Table 1: Night lights summary statistics

	Average	Std dev	Percentile		
			10th	50th	90th
Night light intensity	47.25	16.60	20.00	54.00	63.00
Growth over election cycle	1.67	28.83	-7.21	0.00	10.34
Observations	9702				

Table 2: RD balance regression

	(1)	(2)	(3)
	Education	Criminal charges	Log Assets
Dynast	-0.114	0.421	-0.627
	(0.582)	(0.582)	(0.567)
Observations	140	210	195

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Baseline results – night time lights growth

Night time lights growth			
	IK bandwidth (4.14)	50% IK	200% IK
Dynast	-6.649*	-6.572	-5.811*
	(3.464)	(4.701)	(3.025)
Observations	134		

Standard errors, clustered at the constituency level, are in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Baseline result – night lights growth at village-level

	Depvar: village-level night lights growth over election year				
RD estimate	-0.426*** (0.0948)	-0.497*** (0.131)	-2.067*** (0.745)	-0.534* (0.301)	-0.217 (0.216)
District FE	No	No	No	Yes	No
Subdistrict FE	No	No	No	No	Yes
Observations	12375	6406	2264	12346	12271

Standard errors, clustered at the constituency level, are in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: RD balance – public good provision in pre-period

	Education	Healthcare	Pub health	Comms	Index of public goods			Welfare	Entertainment	Electricity
					Transport	Financial inclusion				
RD estimate	-0.00669 (0.0120)	0.0121** (0.00612)	-0.00713 (0.00555)	-0.0147 (0.0172)	0.00361 (0.0183)	-0.0168 (0.0212)	-0.00838 (0.0107)	-0.0147 (0.0184)	-0.00829 (0.00529)	
Observations	17549	17549	17549	17549	17549	17549	17549	17549	17549	17549

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Impact of dynastic victory on public good provision

	Index of public goods								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Education	Healthcare	Pub health	Comms	Transport	Financial inclusion	Welfare	Entertainment	Electricity
RD estimate	-0.00414 (0.0330)	-0.0784*** (0.0184)	-0.0283** (0.0138)	0.0173 (0.0180)	-0.117*** (0.0398)	-0.107*** (0.0231)	-0.157* (0.0952)	-0.108*** (0.0351)	-0.0465 (0.0307)
Eff. size in SD terms	N/A	0.15	0.06	N/A	0.17	0.14	0.15	0.16	N/A
Observations	3311	3311	3311	3311	3311	3311	3311	3311	3311

Standard errors, clustered at constituency level, are in parentheses. All regressions include party and district fixed effects.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: What issues do voters think are important? (Score 1-3)

	mean	sd
1 Agricultural loan availability	0.98	1.11
2 Electricity for Agriculture	1.13	1.16
3 Better price-realization for farm products	1.20	1.28
4 Irrigation Programmes	1.09	1.20
5 Subsidy for seeds and fertilizers	1.08	1.22
6 Accessibility of MP	1.96	0.81
7 Anti-terrorism	2.07	0.71
8 Better employment opportunities	2.33	0.76
9 Better electric supply	2.20	0.74
10 Better hospitals / Primary Healthcare Centres	2.15	0.80
11 Better Law and Order / Policing	2.16	0.78
12 Better public transport	2.26	0.79
13 Better roads	2.22	0.76
14 Better schools	2.16	0.80
15 Drinking water	2.20	0.77
16 Empowerment of Women	2.19	0.78
17 Environmental issues	2.12	0.78
18 Eradication of Corruption	2.09	0.81
19 Reservation for jobs and education	2.12	0.76
20 Security for women	2.17	0.79
21 Strong Defence/Military	2.11	0.78
22 Subsidized food distribution	2.15	0.80
23 Training for jobs	2.14	0.76
24 Trustworthiness of MP	2.09	0.80
25 Other	1.10	1.16
26 Better garbage clearance	0.57	0.99
27 Encroachment of public land / lakes etc	0.57	0.98
28 Facility for pedestrians and cyclists on roads	0.59	1.02
29 Better food prices for Consumers	0.61	1.05
30 Traffic congestion	0.59	1.03
Average Importance of issue	2.19	0.40
Observations	21531	

Table 8: What issues do rural voters think are important? (Score 1-3)

	(1)	
	mean	sd
1 Agricultural loan availability	1.37	1.10
2 Electricity for Agriculture	1.52	1.11
3 Better price-realization for farm products	1.67	1.22
4 Irrigation Programmes	1.55	1.15
5 Subsidy for seeds and fertilizers	1.53	1.20
6 Accessibility of MP	2.00	0.79
7 Anti-terrorism	2.13	0.68
8 Better employment opportunities	2.42	0.68
9 Better electric supply	2.26	0.68
10 Better hospitals / Primary Healthcare Centres	2.21	0.77
11 Better Law and Order / Policing	2.21	0.73
12 Better public transport	2.35	0.72
13 Better roads	2.30	0.70
14 Better schools	2.22	0.76
15 Drinking water	2.28	0.71
16 Empowerment of Women	2.25	0.74
17 Environmental issues	2.18	0.73
18 Eradication of Corruption	2.14	0.78
19 Reservation for jobs and education	2.18	0.71
20 Security for women	2.24	0.73
21 Strong Defence/Military	2.19	0.74
22 Subsidized food distribution	2.23	0.75
23 Training for jobs	2.22	0.71
24 Trustworthiness of MP	2.14	0.76
25 Other	0.97	1.17
26 Better garbage clearance	0.02	0.19
27 Encroachment of public land / lakes etc	0.02	0.19
28 Facility for pedestrians and cyclists on roads	0.02	0.20
29 Better food prices for Consumers	0.02	0.20
30 Traffic congestion	0.02	0.20
Imp	2.23	0.38
Observations	14539	

Table 9: What issues do urban voters think are important? (Score 1-3)

	(1)	
	mean	sd
1 Agricultural loan availability	0.09	0.42
2 Electricity for Agriculture	0.20	0.63
3 Better price-realization for farm products	0.11	0.51
4 Irrigation Programmes	0.09	0.45
5 Subsidy for seeds and fertilizers	0.09	0.46
6 Accessibility of MP	1.93	0.78
7 Anti-terrorism	2.02	0.69
8 Better employment opportunities	2.23	0.79
9 Better electric supply	2.15	0.76
10 Better hospitals / Primary Healthcare Centres	2.12	0.79
11 Better Law and Order / Policing	2.14	0.78
12 Better public transport	2.16	0.81
13 Better roads	2.14	0.76
14 Better schools	2.13	0.81
15 Drinking water	2.13	0.78
16 Empowerment of Women	2.14	0.78
17 Environmental issues	2.06	0.80
18 Eradication of Corruption	2.05	0.81
19 Reservation for jobs and education	2.07	0.76
20 Security for women	2.11	0.80
21 Strong Defence/Military	2.02	0.78
22 Subsidized food distribution	2.06	0.80
23 Training for jobs	2.05	0.76
24 Trustworthiness of MP	2.05	0.78
25 Other	1.38	1.10
26 Better garbage clearance	1.83	0.93
27 Encroachment of public land / lakes etc	1.84	0.86
28 Facility for pedestrians and cyclists on roads	1.91	0.92
29 Better food prices for Consumers	1.98	0.92
30 Traffic congestion	1.91	0.96
Imp	2.14	0.38
Observations	6390	

Table 10: Voter assessment of politician performance (Score 1-3)

	mean	sd
1 Agricultural loan availability	0.83	0.94
2 Electricity for Agriculture	0.94	1.01
3 Better price-realization for farm products	0.98	1.11
4 Irrigation Programmes	0.91	1.05
5 Subsidy for seeds and fertilizers	0.88	1.04
6 Accessibility of MP	1.52	0.70
7 Anti-terrorism	1.69	0.70
8 Better employment opportunities	1.72	0.81
9 Better electric supply	1.68	0.73
10 Better hospitals / Primary Healthcare Centres	1.60	0.75
11 Better Law and Order / Policing	1.66	0.75
12 Better public transport	1.73	0.80
13 Better roads	1.72	0.75
14 Better schools	1.67	0.77
15 Drinking water	1.70	0.75
16 Empowerment of Women	1.71	0.79
17 Environmental issues	1.65	0.75
18 Eradication of Corruption	1.60	0.76
19 Reservation for jobs and education	1.64	0.74
20 Security for women	1.68	0.79
21 Strong Defence/Military	1.66	0.75
22 Subsidized food distribution	1.66	0.78
23 Training for jobs	1.66	0.76
24 Trustworthiness of MP	1.65	0.77
25 Other	0.96	1.05
26 Better garbage clearance	0.46	0.82
27 Encroachment of public land / lakes etc	0.50	0.87
28 Facility for pedestrians and cyclists on roads	0.50	0.89
29 Better food prices for Consumers	0.49	0.87
30 Traffic congestion	0.48	0.88
Perf	1.72	0.47
Observations	21531	

Table 11: Voter assessment of politician performance

Sample	All voters	Voter different caste to MP	Voter same caste as MP
Dynast	-0.280** (0.127)	-0.375*** (0.137)	-0.149 (0.104)
Observations	16731	9410	6167

Standard errors, clustered at the constituency level, are in parentheses.

All regressions include party and state FEs and controls for constituency and respondent characteristics.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 12: Impact of dynastic victory on voter assessment of politician performance

Sample	Dependent variable: voter assessment of MP performance					
	Male	Female	Rural	Urban	Uneducated	Educated
Iwald	-0.448 (0.277)	-0.360 (0.311)	-0.488 (0.349)	-0.249 (0.233)	-0.369 (0.367)	-0.217 (0.343)
Observations	14522	6753	14539	6390	8957	3008

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 13: Impact of dynastic victory on voter beliefs

	Candidate spent generously	Candidate is powerful
Dynast win	0.386** (0.145)	0.457*** (0.132)
Observations	20192	20190

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$