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Working Paper

Supermajorities and Political Rent Extraction

CESifo Working Paper, No. 5512

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Kauder, Björn; Potrafke, Niklas (2015) : Supermajorities and Political Rent Extraction, CESifo Working Paper, No. 5512, Center for Economic Studies and ifo Institute (CESifo), Munich

This Version is available at:

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CESIFO WORKING PAPER NO. 5512

CATEGORY 2: PUBLIC CHOICE

SEPTEMBER 2015

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ISSN 2364-1428

CESifo

Center for Economic Studies & Ifo Institute

Supermajorities and Political Rent Extraction

Abstract

Models of political competition portray political candidates as seeking the support of the median voter to win elections by majority voting. In practice, political candidates seek supermajorities rather than majorities based on support of the median voter. We study the political benefits from supermajorities using data from Bavaria, the largest German state. Members of the Bavarian parliament had been permitted to hire relatives as office employees but in the year 2000 the practice was prohibited, with exceptions that allowed continuation of employment of previously hired relatives. The circumstances provide an informative setting to relate political behavior to protection of incumbency. Our results show that the likelihood of politicians to hire relatives increased with the margin of the majority for the incumbent in the previous election. When the majority increased by one percentage point, the likelihood of hiring relatives increased by about one percentage point. Supermajorities thus facilitated political rent extraction.

JEL-Code: D720, H700, A130.

Keywords: political incumbency, rents, rent extraction, nepotism, supermajority.

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8 September 2015

A revised version of this paper is forthcoming in *Kyklos*.

1. Introduction

Models of political competition portray candidates as seeking a majority in elections in order to be elected. In the models, support of the median voter is sufficient for winning a contest between two candidates, hence the “median voter” models of political economy. Yet also, rather than simply win an election, candidates may be concerned about the size of the majority by which they are elected. A supermajority can provide candidates with utility by demonstrating the extent to which voters prefer the candidate to the alternatives. We demonstrate empirically that supermajorities can facilitate political rent extraction.¹

Our data is from Bavaria, the largest German state. In April 2013, Bavaria experienced a political scandal involving favoritism. Members of the Bavarian parliament (Landtag) had for many years hired relatives as office employees paid by the Bavarian parliament. This was not an issue that received attention in the public discourse till December 1999. In a meeting on 15 March 1999, the committee dealing with Bavarian MPs’ salaries recommended to forbid hiring relatives. In a meeting on 7 July 1999, the workgroup of Bavarian MPs declared to discuss issues about hiring relatives in the party factions by fall 1999. On 3 December 1999, however, the leading newsmagazine *DER SPIEGEL* reported on the hiring of relatives. Consequently, the Bavarian parliament was forced to react. On 9 December 1999, the First Vice President of the Bavarian parliament acknowledged that new contracts with relatives need to be forbidden in the future. The television program *Panorama* reported on the hiring of relatives on 16 March 2000. Members of the Bavarian parliament thus appeared to realize that hiring relatives was likely to decrease re-election prospects (e.g. Arnim 2013). In 2000, the Bavarian parliament made the state law more stringent. Members of the parliament were no longer allowed to hire spouses, children, or parents as office employees as of 2001.² An interim arrangement allowed the retaining of relatives that had already been employed before

¹ For an overview of the theory of voting and the median voter theorem, see Hillman (2009, chapter 6).

² The law still allowed employing relatives other than spouses, children, and parents. In May 2013 the Bavarian parliament decided to also prohibit employing these relatives as of June 2013.

the change in the law on 1 December 2000. Employing these relatives was not illegal but involved the impression of impropriety with taxpayers' money. We focus on those members of parliament that used the interim arrangement and hired family members in the year 2000. Such practices contravened societal moral codes and could be expected to evoke negative voter reaction. By contrast, before the year 2000, politicians did not have to fear a negative voter reaction because hiring relatives was not an issue in the media.³

In April 2013, it became public knowledge that, 13 years after the interim arrangement was introduced, some MPs still employed close relatives. The family scandal in Bavaria was subsequently a prominent issue in the German media for many weeks preceding Bavarian state elections and also German federal elections in September 2013.⁴ The vote share of the conservative Christian Social Union (CSU) declined by three percentage points in the polls. Quite some commentators believed that the CSU would lose its predominant position in Bavaria and the conservatives would considerably lose votes in the federal elections. In any event, the CSU won the state elections on 15 September 2013 with 48% of the votes. As in the 2008 election, the CSU won in all districts except one. In Kauder and Potrafke (2015) we showed that being involved in the scandal influenced neither the outcome of the 2013 state elections nor voter turnout. Voters did not appear to punish the incumbent government because the reigning CSU expresses Bavarian identity. The rule by the CSU was not compromised. Although Bavarian voters did not punish CSU politicians who contravened a societal moral code in hiring close relatives, there remains the question whether supermajorities affected the behavior of Bavarian politicians. That is, did supermajorities facilitate political rent extraction?

Our data set includes politicians that were MPs in the year 2000 and could thus make use of the interim arrangement, including 104 MPs that have been elected directly in electoral

³ On illegal and legal corruption see, for example, Dincer and Johnston (2015). The results of Ruske (2015) show that US Congress members have been more corrupt when they hold an economics college degree. See Aligica and Tarko (2014) on crony capitalism and rent seeking.

⁴ On elections and corruption see, for example, Vadlamannati (in press).

districts and 101 MPs that entered parliament via the party lists. We acknowledge, however, that the number of relatives using the interim arrangement is low: 16 MPs hired relatives during the year 2000, shortly before the interim arrangement took effect. One of the 16 MPs has died in the meantime, 8 MPs were direct candidates and 7 MPs were list candidates. The small sample thus impairs potential conclusions drawn from our, we believe, interesting empirical study.

2. Institutional background

The CSU has dominated politics in Bavaria for decades. The Social Democratic Party (SPD) and other parties did not play an important role in Bavaria. Since the end of 1946, all state prime ministers – except one SPD prime minister between 1954 and 1957 – were members of the CSU. Between 1966 and 2008 the CSU was in power without any coalition partner.

In Bavarian state elections, voters cast two votes in a personalized proportional representation system. The first vote determines which candidate is to obtain the direct mandate in one of the 90 electoral districts with a relative majority. With the second vote, voters select a politician on a regional party list. Each party that received at least 5% of the first and second votes obtains a corresponding number of the 180 seats in the parliament. Candidates elected with the first vote (direct mandate) obtain their seats first. Candidates from the regional party lists obtain the remaining seats. When the number of direct mandates exceeds the party's vote share in a region, the party obtains excess mandates, and the other parties obtain equalizing mandates. Candidates running for a direct mandate are also on a regional party list and can thus enter parliament even if they fail to win the direct mandate.⁵

⁵ See Massicotte (2003) on the election systems of the German states and James (2009) on the role of the CSU in Bavarian politics.

3. Empirical analysis

3.1 MPs hiring relatives

The Bavarian president of parliament, Barbara Stamm, published a list including those MPs that employed spouses, children, or parents within the 2008-2013 legislative period and during the two preceding legislative periods (“Stamm list”, published on 3 May 2013). From the 360 MPs in the 2008-2013 legislative period and the two preceding legislative periods, only 206 were able to hire relatives according to the interim arrangement, because only 206 politicians were MPs before the interim arrangement took effect in the end of the year 2000. 79 MPs hired relatives at some time before the interim arrangement took effect (three of these MPs died in the meantime),⁶ from which 16 hired relatives during the year 2000 (our period of interest), shortly before the interim arrangement took effect. It is conceivable that these MPs hired relatives despite the fact that or because they knew that hiring relatives was going to be disallowed. One of the 16 MPs has died in the meantime, twelve are members of the reigning CSU, and three are members of the SPD (see Table 1). The hired relatives include eight spouses and eleven children (some MPs hired more than one relative), but no parents. To be sure, some MPs also hired relatives other than spouses, children, or parents, which also did not violate the law. MPs who hired relatives other than spouses, children, or parents did not appear on the Stamm list and we therefore do not consider these MPs as having hired relatives.

3.2 Descriptive statistics

We use data from the Centre of Bavarian History, the Bavarian Statistical Office, the Bavarian parliament, and personal websites of the MPs. We only include those MPs in the data set which were MPs in the year 2000 and could thus make use of the interim arrangement. We

⁶ We exclude one MP because of lacking data. Because it is not known which of the deceased MPs hired relatives, we code all deceased MPs as not having hired relatives; inferences do not change when we exclude the deceased MPs from our data set.

use two samples: the sample of direct candidates includes 104 MPs; the sample of list candidates includes 101 MPs. Tables 2 and 3 show descriptive statistics. Whether elections in an individual electoral district are contested is measured by the vote margin between the winning candidate and the runner-up (see Bernecker 2014, Gagliarducci et al. 2011, Becker et al. 2009, and Solé-Ollé 2003). Figure 1 shows that the average vote margin of MPs that hired relatives (29%) was larger than the average vote margin of MPs that did not hire relatives (22%).

3.3 Empirical strategy

The probit model has the following form:

$$\begin{aligned} \text{Hired relative in 2000}_i = & \alpha + \beta \text{Vote margin}_i \text{ or } \text{List position}_i + \gamma \text{Number of competitors}_i \\ & + \delta \text{Eligible voters}_i + \sum_j \varepsilon_j \text{Personal characteristics}_{ij} + \sum_k \zeta_k \text{Party}_{ik} + \sum_l \eta_l \text{Region}_{il} + u_i \end{aligned}$$

$$\text{with } i=1, \dots, 104 \text{ or } 101; j=1, \dots, 5; k=1, 2; l=1, \dots, 6$$

where *Hired relative in 2000_i* describes whether MP *i* has used the interim arrangement and hired relatives in the year 2000 and assumes the value one when the MP *i* was on the Stamm list for the year 2000 and zero otherwise. We distinguish candidates that ran for a direct mandate and candidates that ran only as list candidates. *Vote margin_i* describes the vote share difference between the winner of a direct mandate in an electoral district and the runner-up in the 1998 election; in alternative specifications we also include the squared and cubed vote margin, and dummy variables for different levels of vote margins. *List position_i* describes either the ratio or the difference of the number of successful list candidates in a region and the list position of the individual MP. For direct candidates, we measure competition in a district by including the *Number of competitors_i* running for a direct mandate next to MP *i*;⁷ we also include the number of *Eligible voters_i* in the district of MP *i*. We include further control

⁷ We cannot measure competition on party lists by including the number of competitors on party lists, because in most regions all parties' lists have the same length; the differences between regions are already captured by the *Region* dummies.

variables: *Years MP_i* describes the number of years from the MP's first election into parliament until the year 2000 (when an MP decided to hire relatives). *Years in a party_i* describes the number of years since the MP's beginning of membership in a political party until the year 2000.⁸ We include *Years MP_i* and *Years in a party_i* to measure politicians' opportunity costs to hire relatives. Politicians who have been enrolled in politics for a long time face different incentives as compared to politicians who just started their career. Politicians who just started their political career still have outside options on the labor market. Consequently, for politicians who just started their career extracting rents is a barely risky way to increase income. By contrast, politicians who have been enrolled in politics for a long time hardly have outside options on the labor market and experience a higher risk to hire relatives: when the affair leaks out, the politician likely has to retire. We therefore expect politicians who have been enrolled in politics for a long time to hire relatives to a lesser extent. Learning effects are also likely to influence hiring decisions: experienced politicians may understand better the risks associated with favoritism.⁹ *Age_i* describes the age of the MP at the end of the year 2000. The dummy variable *Female_i* assumes the value one for female MPs.¹⁰ *Education_i* describes the highest educational achievement of an MP: the variable assumes the value one for having visited a school, the value two for a completed vocational training (Berufsausbildung), the value three for a master craftsman (Meister), the value four for a university of applied sciences degree (Fachhochschulabschluss), the value five for a university degree, and the value six for a PhD.¹¹ *Party_{ik}* describes dummy variables for the CSU and the SPD (reference

⁸ We also consider membership in a youth organization of a political party as a membership in a political party. When an MP changed the party, we consider the beginning of membership in her/his first party. Note that *Years in a party_i* is not available for the entire sample.

⁹ In deciding on whether to engage in favoritism politicians consider the probability of detection. When the media discovers a case of favoritism the political career may end; the media or the party can force the politician to resign. It is also conceivable that the political career ends because the politician is elected out of office (see, for example, Costas-Pérez et al. 2012 for Spain, Reed 1999 for Japan and Great Britain, Hirano and Snyder 2012 for the United States, and Ferraz and Finan 2008 for Brazil). However, there is no variable measuring the probability of detection. Scandals may also reduce trust in politicians (Solé-Ollé and Sorribas-Navarro 2014).

¹⁰ Geys and Mause (2014) describe the extent to which male and female legislators differ.

¹¹ Our coding thus assumes a linear relation between the educational achievements. For parsimony reasons we do not include dummy variables for each educational achievement.

category: Greens and independent MPs). $Region_{it}$ describes dummy variables for the regions where the individual MPs have been elected (reference category: Oberbayern), and u_i describes an error term. We estimate a probit model with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors – see Huber 1967 and White 1980).

3.4 Regression results

Table 4 shows the results of the probit model (marginal effects) for direct candidates. In discussing the results, we focus on our preferred specification including all control variables in column (3). The marginal effect of *Vote margin* is quite large and shows that the probability to hire relatives in the year 2000 increased by about one percentage point when the vote margin of the MP in question increased by one percentage point. The effect attains statistical significance at the 1% level. The effect of the number of competitors running for a direct mandate in a district does not turn out to be statistically significant. Politicians hesitate to hire relatives when electoral districts are large: When the number of eligible voters increased by 1000, the probability to hire a relative decreased by about 0.3 percentage points (significant at the 5% level). Also the number of years being an MP influenced hiring relatives. A politician who was in the Bavarian parliament for a long time had a lower probability of hiring relatives. The effect is statistically significant at the 10% level. The numerical meaning of the effect is that one additional year in parliament decreased the probability of hiring relatives by about 0.6 percentage points. Politicians who have been enrolled in politics for a long time hesitate to hire relatives, for example because they understand better the risks associated with favoritism or hardly have outside options on the labor market when they have to leave politics. These findings correspond with evidence showing that the political entry decision of citizens depends on the opportunity costs (Caselli and Morelli 2004, Messner and Polborn 2004, see also Kotakorpi and Poutvaara 2011). The

effect of the years since the beginning of membership in a political party lacks statistical significance. Older MPs were less likely to hire relatives. The numerical meaning of the effect is that being one year older decreased the probability of hiring relatives by about 1.1 percentage points (significant at the 5% level). The level of education does not turn out to be statistically significant. The electoral districts influenced the probability of hiring relatives. The probability of hiring relatives was lowest in Oberbayern (reference category); the probability was highest in Oberpfalz and Mittelfranken and was also higher in Niederbayern. The effect of Unterfranken lacks statistical significance at conventional levels.

It is conceivable that the vote margin influenced the probability to hire a relative non-linearly. In the left part of Table 5, we thus include the squared and the cubed vote margin. The results show that the probability to hire a relative increased non-linearly in the vote margin, at least when including control variables in columns (2) and (3). The marginal effects of the vote margin, the squared vote margin, and the cubed vote margin are statistically significant at the 5% or 10% level and indicate that supermajorities give rise to political rent extraction. Including dummy variables for different levels of vote margins in the right part of Table 5 corroborates this result. The marginal effects are statistically significant at the 1% level and indicate that the probability to hire a relative is higher for vote margins above 10% (reference category: vote margins between 0% and 10%). Inferences regarding our control variables do not change, with the exception of the *Years MP* variable, which now lacks statistical significance, and the *Years in a party* variable, which now attains statistical significance in column (6).

Table 6 shows the results for list candidates. We again focus on our preferred specifications including all control variables in columns (3) and (6). The effects of the list position (ratio or difference) do not turn out to be statistically significant. Also the effects of *Years MP*, *Years in a party*, and *Age* lack statistical significance. Female MPs were more inclined to hire relatives than male MPs. The effects are statistically significant at the 5% or 10% level.

The probability of hiring relatives was about 6.5 to 7.2 percentage points higher for female MPs. We conjecture that female MPs were more likely to hire relatives, because some list positions are implicitly reserved for women, who thus face less competition and do not have to fear getting worse list positions or not being re-nominated when involved in a political scandal. The effect of *Education* does not turn out to be statistically significant.¹² MPs from the CSU and the SPD were more likely to hire relatives than MPs from the Greens or independent MPs (significant at the 1% level). The probability to hire relatives was about 51 to 52 percentage points higher for CSU politicians and about 43 to 45 percentage points higher for SPD politicians compared to politicians from the Greens and independent politicians. MPs from Oberfranken and Oberpfalz were more likely to hire relatives than MPs from Oberbayern. The effects of Niederbayern and Schwaben lack statistical significance.

3.5 Robustness tests

We submitted all of our results to rigorous robustness tests using different specifications of our regressions and different samples. None of these robustness tests indicates any severe fragility of our results.

Becker et al. (2009) and Bernecker (2014) used absence rates in parliament and outside income as dependent variables and described that the vote margin variable may be endogenous. We relate the two reasons for why the vote margin variable may be endogenous to our research design. First, very motivated politicians are likely to have quite large vote margins and are also less likely to engage in favoritism and hire relatives. Second, when a large vote margin in the previous election indeed gives rise to a higher probability that politicians hire relatives, voters may well punish politicians who hired relatives in the next election. The vote margin in the next election declines. To deal with the endogeneity issue we

¹² The education did also not turn out to be statistically significant in Tables 4 and 5. In the United States, the quality of politicians hardly differed between safe and competitive districts (Hirano and Snyder 2014). In Italy, however, party loyalists have been selected to safe districts and had better positions on party lists than experts (Galasso and Nannicini in press and 2011). See Braendle (in press) for a survey.

follow Becker et al. (2009) and Bernecker (2014) by employing a 2SLS approach, instrumenting the vote margin (that is based on the first vote) with the second vote share of the candidate's party in her/his district. Following Becker et al. (2009), we "exploit the fact that voters vote on district-level candidates (first vote) and parties (second vote) at the same time." We acknowledge that the exclusion restriction may not be fulfilled when party strength directly predicts employing relatives.

Table 7 shows the 2SLS results of the probit model (marginal effects) for direct candidates when we use the second vote share as an instrumental variable. The F-test on the excluded instrument indicates with an F-statistic of about 220 that the second vote share is a strong instrument for the vote margin. The F-statistic is above the Stock and Yogo (2005) 5% critical value. The numerical meaning of the effect in the first stage is that the vote margin increased by 1.3 percentage points when the second vote share increased by one percentage point. Inferences regarding the effect of the vote margin do not change when we use the second vote share as an instrumental variable.

Candidates running for a direct mandate are also on a party list. An issue is therefore whether a list position variable needs to be included as an explanatory variable in the sample of directly elected candidates. Bernecker (2014: 58) used data for German federal elections and described that including the list position is important because "an MP with a first vote margin of only 1 percentage point might still not be under a lot of electoral pressure if she knows that she will be put on the first place of her party's list (and therefore very likely be elected to parliament through the proportional tier anyway)". Because the CSU is by far the most popular political party in Bavaria, vote margins are quite large. In 1998, the CSU won 99 and the SPD won 5 electoral districts. List positions of CSU candidates who are also running for a direct mandate in electoral districts do thus not greatly matter. In any event, when we include one of the list position variables, inferences regarding the vote margin do not change.

We tested how direct and list candidates differ by exploiting that all direct candidates were also on a party list, and estimated the model jointly for direct and list-only candidates. The list position variables, a dummy variable for direct candidates, and the interaction term of both do not turn out to be statistically significant, corroborating that list positions did not matter and that list-only candidates did not differ from direct candidates in this respect.

The variable *Years MP* assumes a linear relationship between experience in parliament and the probability of hiring a relative. We tested whether inferences change when we use a dummy variable that assumes the value one if the MP had already been a member of parliament before 1998. The incumbent variable lacks statistical significance in all specifications; inferences regarding the vote margin and the list position variables do not change.

We tested whether inferences change when we estimate the model with the vote margin as explanatory variable only for politicians from the CSU. Inferences do not change. Estimating the model with the list position as explanatory variable only for politicians from the CSU is not meaningful, because only few MPs from the CSU were elected into the parliament via the party lists. Estimating the model for other parties than the CSU is also not meaningful, because only three politicians from other parties than the CSU hired relatives in the year 2000.

4. Conclusion

Political competition (Ursprung 1991) disciplines politicians. In Germany, for example, members of the federal parliament attended more parliamentary sessions and earned less outside income when they ran for office in contested electoral districts (Becker et al. 2009, Bernecker 2014).¹³ In Italy, members of the House of Representatives elected under majoritarian voting proposed more bills targeted at their constituency and had lower absenteeism rates in

¹³ For encompassing surveys on moonlighting politicians see, for example, Geys and Mause (2012, 2013). For new empirical evidence for Italy and Germany, see Gagliarducci et al. (2010) and Arnold et al. (2014). Campbell and Cowley (2015) portray attitudes to moonlighting politicians in the United Kingdom. On political effort of criminal MPs, see Gehring et al. (2015).

parliament than politicians elected under proportional representation (Gagliarducci et al. 2011). We find that supermajorities facilitate political benefits or political rent extraction.

The possibility of rent extraction provides incentives for rent creation and rent sharing (Hillman 2015).¹⁴ We have used an interesting opportunity to relate political benefits to supermajorities in elections. We show that supermajorities protect personal political rents. The magnitudes of vote margins predict whether members of the Bavarian parliament hired relatives when the practices were publicly known and declared illegal in the future with the exception of relatives who had been hired before the change in the law. Our results show that when the vote margin between a winning candidate and the runner-up increased by one percentage point, the likelihood of hiring relatives increased by about one percentage point.¹⁵ We acknowledge that when employed relatives are well qualified or collaborating with trusted persons increases productivity, we may not interpret the findings as rent extraction.¹⁶ Unfortunately, we do not have any information on to what extent the relatives were qualified assistants. However, the public discourse portrayed that relatives were not hired because of individual qualifications, and the politicians did not make an attempt assuring the public of having hired especially qualified assistants.

Vote margins predict whether politicians favor relatives, whereas list positions do not. To be sure, politicians running for a direct mandate are judged by voters. By contrast, politicians running on a party list have to convince fellow party members at party meetings in order to obtain an attractive position on a party list. Both voters and fellow party members would not favor politicians hiring relatives. When deciding on whether or not hiring relatives, direct candidates may however fear voters' reaction more than list candidates fear the reaction of

¹⁴ See McChesney (1987) on political rent extraction in the particular context of political extortion, and Buchanan and Congleton (1994) on rent extraction and the "electoral prisoners' dilemma". Appelbaum and Katz (1987) examine rent seeking and the interactions of regulators, firms, and consumers.

¹⁵ Other literature has emphasized that supermajorities protect the status quo and have consequences for policies. See for example Heckelman and Dougherty (2010) on supermajorities and taxation and Lee et al. (2014) on supermajorities and public spending.

¹⁶ In Italy, public sector employees have been shown to favor their children in gaining access to public sector positions (Scoppa 2009).

fellow party members. Voters may view hiring relatives as taking advantage of taxpayers' money; voters are thus expected to punish politicians that hired relatives. Fellow party members, however, may view diverting money as justified when the political caste considers their salaries to be too low, and thus punish politicians that hired relatives to a lesser extent than voters do.

Our results suggest advantages of a two-tier election system. Majoritarian election systems facilitate punishment of politicians who contravene societal moral codes. Purely proportional election systems, by contrast, do not allow for directly controlling individual politicians.¹⁷ Bavaria is a prime example for why a purely majoritarian election system may not be adequate: with the CSU as the dominant political party, the parliament would consist basically only of CSU politicians, whereas proportional representation would better reflect voters' preferences. Personalized proportional representation systems such as that in Bavaria combine the advantages of majoritarian and proportional election systems.

Acknowledgements

We would like to thank Arye Hillman, David Stadelmann, Heinrich Ursprung and two anonymous referees for their helpful comments and Lisa Giani-Contini for proof-reading the paper. We received helpful comments on a previous version from Hans Herbert von Arnim, Felix Arnold, Michael Bechtel, Rosemary Fike, Benny Geys, James R. Hines Jr., Karsten Mause, Albert Solé-Ollé, and conference participants at the Public Choice Society (Charleston, SC), the European Public Choice Society (Cambridge, UK), the CESifo Public Sector Economics Conference (Munich), and seminar participants at the University of St. Gallen. Danny Kurban, Benjamin Larin, Julia Richenhagen, Alexander H. Schwemmer, and Leonard Thielmann provided excellent research assistance.

¹⁷ To be sure, the Bavarian election system also allows punishing politicians in the proportional tier, as voters can select individual politicians on party lists (see Section 2). This mechanism is however rather indirect and thus less effective than punishment at the majoritarian tier.

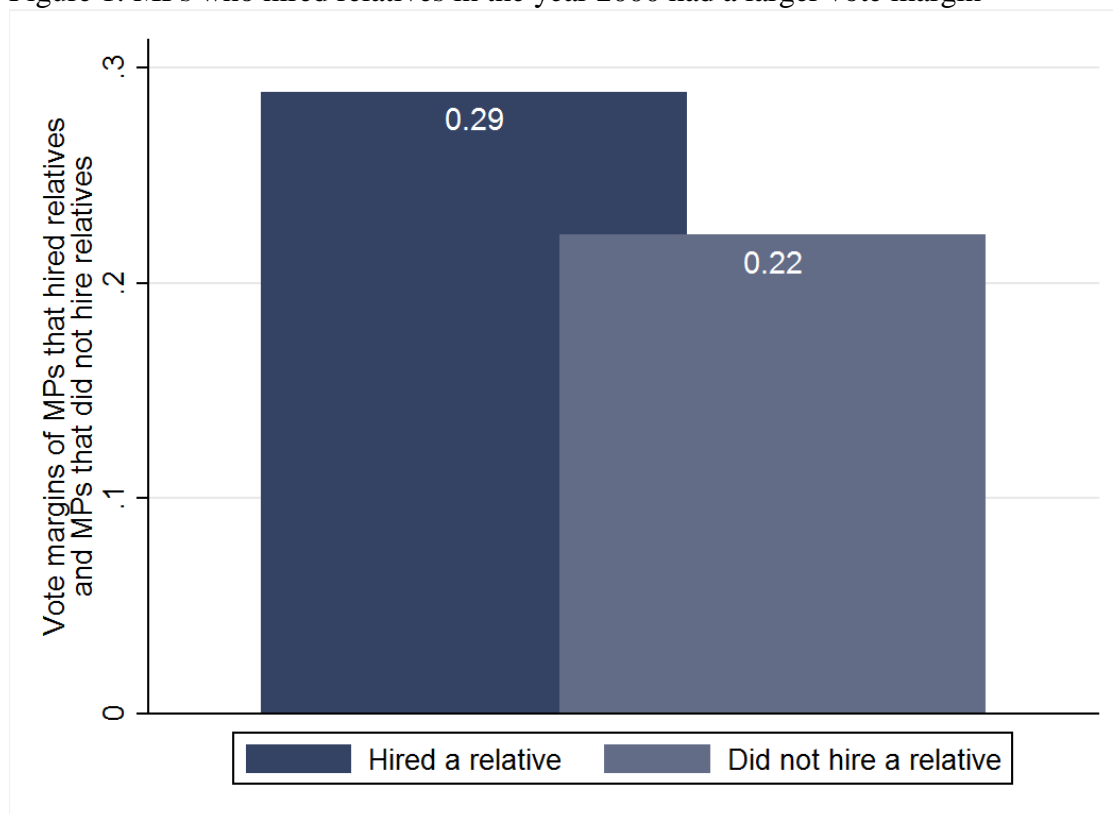
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Figure 1: MPs who hired relatives in the year 2000 had a larger vote margin



T-test on means (difference between left and right bar) with t-value 1.47. Source: own illustration.

Table 1: Number of MPs who hired or did not hire relatives in our sample

	Hired before 2000	Hired in 2000	Did not hire	Total
CSU – direct candidates	35	8	56	99
CSU – list candidates	7	4	14	25
SPD – direct candidates	2	0	3	5
SPD – list candidates	14	3	45	62
Greens – direct candidates	0	0	0	0
Greens – list candidates	1	0	12	13
Independent MP	1	0	0	1
Total	60	15	130	205

Table 2: Descriptive statistics (sample for direct candidates)

	Obs.	Mean	Std. Dev.	Min	Max
Hired relative in 2000	104	0.077	0.268	0	1
Vote margin	104	0.228	0.123	0.002	0.517
Vote margin squared	104	0.067	0.057	0.000	0.267
Vote margin cubed	104	0.022	0.025	0.000	0.138
Vote margin 0-10%	104	0.192	0.396	0	1
Vote margin 10-20%	104	0.212	0.410	0	1
Vote margin 20-30%	104	0.260	0.441	0	1
Vote margin above 30%	104	0.337	0.475	0	1
Number of competitors	104	9.885	1.193	7	13
Eligible voters	104	85.059	13.246	60.593	109.968
Years MP	104	12.356	8.147	2	30
Years in a party	85	28.482	6.667	11	43
Age	104	53.212	8.464	29	69
Female	104	0.077	0.268	0	1
Education	104	3.885	1.609	1	6
CSU	104	0.952	0.215	0	1
SPD	104	0.048	0.215	0	1
Greens	104	0.000	0.000	0	0
Niederbayern	104	0.096	0.296	0	1
Oberbayern	104	0.317	0.468	0	1
Oberpfalz	104	0.096	0.296	0	1
Oberfranken	104	0.096	0.296	0	1
Mittelfranken	104	0.135	0.343	0	1
Unterfranken	104	0.115	0.321	0	1
Schwaben	104	0.144	0.353	0	1
Second vote share (IV, 1st stage)	104	0.539	0.073	0.332	0.692

Eligible voters measured in 1000.

Table 3: Descriptive statistics (sample for list candidates)

	Obs.	Mean	Std. Dev.	Min	Max
Hired relative in 2000	101	0.069	0.255	0	1
List position (ratio)	101	2.518	2.454	0.875	17
List position (difference)	101	3.465	3.678	-1	16
Years MP	101	8.218	6.471	0	26
Years in a party	93	25.473	8.995	3	45
Age	101	51.871	7.615	35	65
Female	101	0.376	0.487	0	1
Education	101	4.119	1.512	1	6
CSU	101	0.248	0.434	0	1
SPD	101	0.614	0.489	0	1
Greens	101	0.129	0.337	0	1
Niederbayern	101	0.099	0.300	0	1
Oberbayern	101	0.327	0.471	0	1
Oberpfalz	101	0.099	0.300	0	1
Oberfranken	101	0.099	0.300	0	1
Mittelfranken	101	0.139	0.347	0	1
Unterfranken	101	0.109	0.313	0	1
Schwaben	101	0.129	0.337	0	1

List position (ratio) assumes a value less than 1 and *List position (difference)* the value -1 for successors of retired MPs.

Table 4: Regression results of probit model for direct candidates (marginal effects).
Dependent variable: Hired relative in 2000 (yes=1)

	(1)	(2)	(3)
Vote margin	0.342*	0.597***	1.021***
	(1.668)	(2.715)	(2.930)
Number of competitors		0.010	0.011
		(0.474)	(0.489)
Eligible voters		-0.005***	-0.003**
		(-2.859)	(-2.258)
Years MP		-0.004	-0.006*
		(-1.606)	(-1.733)
Years in a party			0.003
			(0.703)
Age		-0.005**	-0.011**
		(-2.533)	(-2.553)
Education		0.013	0.000
		(0.948)	(0.009)
Niederbayern		0.152**	0.124**
		(2.363)	(2.333)
Oberpfalz		0.152*	0.234***
		(1.775)	(2.977)
Mittelfranken		0.132**	0.199***
		(2.036)	(3.472)
Unterfranken		0.117*	0.093
		(1.917)	(1.526)
Schwaben		0.018	
		(0.271)	
Observations	104	104	85

Years in a party is not available for the entire sample; *Female*, *CSU*, *SPD*, *Oberfranken* (and *Schwaben*) missing because of collinearity or because one value predicts failure perfectly; standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors); z-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Regression results of probit model for direct candidates (marginal effects).

Dependent variable: Hired relative in 2000 (yes=1)

	(1)	(2)	(3)	(4)	(5)	(6)
Vote margin	3.561 (1.323)	3.910** (2.183)	5.303** (2.564)			
Vote margin squared	-11.024 (-1.110)	-13.235* (-1.922)	-16.497** (-2.246)			
Vote margin cubed	11.062 (0.977)	15.526* (1.930)	18.289** (2.324)			
Vote margin 10-20%				0.505*** (3.072)	0.476*** (4.151)	
Vote margin 20-30%				0.591*** (3.441)	0.510*** (3.970)	0.703*** (2.716)
Vote margin above 30%				0.548*** (3.316)	0.542*** (3.999)	0.710*** (2.650)
Number of competitors		0.012 (0.528)	0.011 (0.466)		0.013 (0.633)	0.008 (0.411)
Eligible voters		-0.005*** (-2.876)	-0.002 (-1.437)		-0.005*** (-2.703)	-0.002* (-1.655)
Years MP		-0.003 (-1.310)	-0.003 (-0.830)		-0.001 (-0.608)	0.001 (0.699)
Years in a party			0.001 (0.168)			-0.005* (-1.834)
Age		-0.007*** (-3.590)	-0.009 (-1.589)		-0.008*** (-3.532)	-0.004* (-1.729)
Education		0.005 (0.425)	-0.011 (-0.755)		0.003 (0.279)	-0.007 (-0.623)
Niederbayern		0.142** (2.215)	0.103** (2.182)		0.107 (1.537)	0.082** (2.072)
Oberpfalz		0.146* (1.958)	0.189** (2.172)		0.118 (1.504)	0.118* (1.768)
Mittelfranken		0.149** (2.467)	0.216*** (4.933)		0.149** (2.480)	0.433*** (3.236)
Unterfranken		0.111** (2.012)	0.068* (1.760)		0.086 (1.562)	0.047 (1.259)
Schwaben		0.031 (0.441)			0.001 (0.020)	
Observations	104	104	85	104	104	85

Years in a party is not available for the entire sample; *Female*, *CSU*, *SPD*, *Oberfranken* (and *Schwaben* and *Vote margin 10-20%*) missing because of collinearity or because one value predicts failure perfectly; standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors); z-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Regression results of probit model for list candidates (marginal effects).

Dependent variable: Hired relative in 2000 (yes=1)

	(1)	(2)	(3)	(4)	(5)	(6)
List position (ratio)	-0.018 (-1.196)	-0.006 (-0.602)	-0.011 (-0.730)			
List position (difference)				-0.012 (-1.338)	0.002 (0.313)	0.000 (0.044)
Years MP		-0.004 (-0.706)	-0.001 (-0.202)		-0.006 (-0.967)	-0.003 (-0.552)
Years in a party			-0.003 (-1.308)			-0.003 (-1.223)
Age		0.002 (0.744)	0.004 (1.119)		0.003 (0.956)	0.004 (1.275)
Female		0.082* (1.937)	0.065* (1.661)		0.087** (1.981)	0.072* (1.767)
Education		-0.005 (-0.296)	-0.000 (-0.007)		-0.007 (-0.436)	-0.003 (-0.193)
CSU		0.544*** (3.930)	0.524*** (3.458)		0.549*** (3.885)	0.510*** (3.553)
SPD		0.439*** (3.516)	0.451*** (3.233)		0.434*** (3.400)	0.427*** (3.267)
Niederbayern		0.090 (1.263)	0.091 (1.133)		0.099 (1.354)	0.091 (1.154)
Oberpfalz		0.141** (2.019)	0.111* (1.860)		0.153** (2.178)	0.120** (1.963)
Oberfranken		0.196*** (3.098)	0.187** (2.553)		0.206*** (3.070)	0.190** (2.458)
Schwaben		0.033 (0.550)	0.011 (0.176)		0.033 (0.529)	0.008 (0.121)
Observations	101	101	93	101	101	93

Years in a party is not available for the entire sample; *Mittelfranken* and *Unterfranken* missing because of collinearity or because one value predicts failure perfectly; standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors); z-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 7: Regression results of 2SLS probit model for direct candidates (marginal effects).
Dependent variable: Hired relative in 2000 (yes=1)

	(1)	(2)	(3)
Vote margin	0.311 (1.463)	0.616** (1.965)	1.637*** (2.798)
Number of competitors		0.010 (0.485)	0.013 (0.521)
Eligible voters		-0.005*** (-2.715)	-0.003* (-1.687)
Years MP		-0.004 (-1.582)	-0.008* (-1.841)
Years in a party			0.010 (1.592)
Age		-0.005** (-2.235)	-0.017** (-2.543)
Education		0.013 (0.977)	0.006 (0.343)
Niederbayern		0.154*** (2.738)	0.137** (2.167)
Oberpfalz		0.155** (2.050)	0.332*** (3.324)
Mittelfranken		0.136** (2.402)	0.310*** (3.259)
Unterfranken		0.118** (2.052)	0.132** (2.269)
Schwaben		0.020 (0.340)	
Second vote share (IV, 1st stage)	1.513*** (18.21)	1.409*** (16.19)	1.277*** (14.79)
F-statistic on excl. instrument	331.6	262.1	218.7
Observations	104	104	85

Years in a party is not available for the entire sample; *Female*, *CSU*, *SPD*, *Oberfranken* (and *Schwaben*) missing because of collinearity or because one value predicts failure perfectly; standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors); z-statistics in parentheses; *** p<0.01, ** p<0.05, * p<0.1.