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Quasi-experimental evidence for Bavaria.

Lukas Schötz

Diskussionsbeitrag Nr. V-70-16

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Dr. Lukas Schötz
Wirtschaftswissenschaftliche Fakultät
Universität Passau
94030 Passau

Power and Rents – political influence on rent extraction. Quasi-experimental evidence for Bavaria.

Lukas Schötz*

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Abstract The pursuit of individual rents by political representatives is recognized as one of the major shortcomings of political systems. While both legal and illegal types of rents are distributed by political decisions, research has focused primarily on illegal rent-seeking by politicians. This article examines the extent to which elected Bavarian mayors are provided with legal political rents. As independently elected councils determine the remuneration of mayors in Bavarian municipalities, an examination of this process is used to determine whether evidence exists that strong political competition limits rent allocation in the political system. Results from this quasi-experimental regression discontinuity design (RDD) approach show that political competition and party considerations have a significant impact on the allocation of legal rents to local leaders. However, this effect is not present in cases where rents received by mayors were already high prior to the election.

Keywords political rents – local affairs – regression discontinuity design

* Lukas Schötz is research assistant at the Straubing Science Center.
E-Mail: l.schoetz@wz-straubing.de

1. Introduction

The individual rent pursuit of political representatives is considered a threat both to public confidence in, and effective functioning of political systems. Their position of power and continuous need to make decisions combine to provide politicians opportunities to allocate rent both to themselves and to close acquaintances. Despite the many legal opportunities for those holding public office to benefit personally, the empirical research literature has focused mostly on illegal rent-seeking by politicians. Previously published theoretical and empirical research into politicians seeking legal rents has focused on rents that the beneficiaries allocate to themselves.

In this article, I examine cases where municipal councils of elected representatives decide the level of remuneration for the mayors of those municipalities. In detail, I assess the extent to which party political ties promote a more generous distribution of monetary benefits. This analysis stands out from previous research in that, in the case of Bavarian municipalities, the council must make a binary decision about the level of compensation a full-time mayor will receive (high / low). As the level of legal remuneration politicians receive is not generally discussed in local press outlets in Bavaria, this decision is not likely to be affected by incentives to limit allowances because of worries about public perception.

By analyzing data only from Bavarian municipalities, a homogeneous regulatory framework and an established democratic structure for all observation units is ensured. Official municipality data, official election data, and data obtained through a survey on the remuneration of municipal mayors administered specifically for this study were acquired for four municipal elections (1990, 1996, 2002, 2008). The quasi-experimental regression discontinuity approach was used to combine these data in an effort to reveal causal effects. The results indicate that increasing political competition reduces the level of legal rents paid out to municipal mayors, and that a political council constellation that could be considered favorable for a particular mayor leads to a more generous allocation of legal rents. Furthermore, the data suggest a link between rents which are granted pre-election (*ex ante*) and those allocated post-election (*ex post*). Initial results indicate that the level of *ex ante*-granted rents has an effect on the payout of *ex post* rents. Further research is needed, however, to fully understand this interaction. Possible endogeneity concerns are treated by using the quasi-experimental regression discontinuity design (RDD).

This article is organized as follows; Section 2 describes the theoretical foundations and existing empirical evidence. Section 3 presents the legal framework conditions, explains the statistical methodology and describes the datasets used. The findings of the analysis, as well as robustness tests and restrictions can be found in Section 4. Section 5 concludes the article with a review of the results and a summary.

2. Theoretical background and empirical evidence

In democracies, the public transfers powers to elected politicians and expects that they will make decisions for the public good. In exercising their duties, politicians inevitably come into situations where they must decide on the allocation of economic rents. Starting with a seminal work by Tullock (1967), an extensive literature dedicated to the rent-seeking behavior of politicians has evolved.¹ In general, political rents can be divided into monetary and non-monetary grants; whereas power, influence and prestige are categorized as non-monetary grants (cf. McChesney, 1997). The amount of these non-monetary rents and the different value assigned to them by different individuals show that it is difficult to measure or compare them objectively.

Monetary rents, however, are measurable and comparable - at least with respect to their magnitude. A large number of studies (cf. Lambsdorff, 2002) have been dedicated to political corruption and the illegal appropriation of monetary rents. Only recently has empirical research been concerned with the distribution of legal political rents,² which are considered to be limited to legal distributions of money to politicians and/or political parties (cf. Persson and Tabellini, 2000). Since officially authorized legal monetary rents are observable due to the existence of a clear legal framework for the determination of the amount to be distributed, the observations provide promising research possibilities.

Some legal frameworks established to regulate remuneration of public office holders state that newly elected politicians are authorized to redefine their own monetary political rents following each new election. German federal and provincial parliaments provide a good example of this situation, as members of parliament decide on their own remuneration. Critical public reception of this recurring process seems appropriate, given the principal-agent problem. Increasing the pay level of politicians is not necessarily in the best interest of the electorate (cf. Persson et al., 1997). In situations where politicians must decide on their own remuneration, however, there are some incentives for voluntarily limitations on rent-seeking. Theoretical literature predicts that rising rent extraction reduces the probability of re-election, which also infers that with increasing political competition, rent extraction can be expected to decrease.³

The influence of media coverage and political competition on self-determined rents in Swedish municipal politics is documented by the work of Svaleryd and Vlachos (2009). Their empirical study shows that rents that are distributed by municipal councils to finance political parties increase significantly with decreases in political competition and with declining awareness of local politics among the electorate. In addition, the authors show that the regulations governing legal rent

¹ Cf. Congleton (2008) for a literature overview.

² Cf. Svaleryd und Vlachos (2009), Benito et al. (2014), Peichl et al. (2013), as well as Di Tella and Fisman (2004).

³ Persson and Tabellini (2000) as well as Besley (2007) present different political agency models.

allocation are repeatedly modified to favor the ruling coalition. In a similar analysis of the 100 largest Spanish municipalities, Benito et al. (2014) provide evidence that the lower the level of political competition and the lower the level of awareness of the electorate with regard to local politics, the larger are the salaries that municipal leaders grant themselves.

In contrast to cases where politicians are authorized to determine their own salaries, some legal frameworks allow for an elected council to determine the remuneration of the winners of other political offices after the election. Svaleryd and Vlachos (2009) show that the relative levels of remuneration allocated to local political leaders by governing councils is dependent on both the level of interest the electorate has in politics and the level of political competition that exists. Di Tella and Fisman (2004) show that the level of remuneration of US governors is negatively affected when the state senate is under control of the opposition party.⁴ Newman and Mozes (1999) find a comparable effect when analyzing the salaries of the CEOs of US companies. The more similar the backgrounds of the Board of Directors are to that of the CEO, the more generous is the salary upon which they decide.

The efficiency wage theory (cf. Shapiro and Stiglitz, 1984) and the competition theory (cf. Lazear and Rosen, 1981), as well as models of political economy all offer rational arguments that justify a high level of remuneration for executives.⁵ Empirical research investigating the effects of ex ante monetary incentives shows that higher remuneration opportunities lead to more and better qualified applicants (Gagliarducci und Nannicini, 2013), and further, that the politicians that are actually elected show more commitment and stay in office for a longer time (Ferraz und Finan, 2009).

3. Framework, empirical strategy and data

This article describes empirical research conducted on legal rent-seeking in Bavarian municipalities. The following section shows the legal framework in Bavaria, explains the statistical methodology and describes the data set.

3.1. Framework

A total of 2056 municipalities, which are largely autonomous and possess specific rights and obligations, represent the lowest level of local government in Bavaria. According to the South German Council Constitution (Süddeutsche Ratsverfassung), a hybrid of presidential and

⁴ In general, the remuneration of governors decreases with rising taxes and increases with higher per capita income. In cases where the opposition has control over the senate, the income elasticity of remuneration sinks while the tax elasticity of remuneration rises.

⁵ Cf. Besley (2004), Caselli and Morelli (2004), as well as Gneezy and Rustichini (2000).

representative democracy is practiced in Bavarian municipalities. Citizens choose a mayor with wide-ranging powers (cf. Boettcher, 2013) by direct election. In the same election, representatives are independently elected to serve on the municipal council - the decision-making body of the municipality. Its size (the number of elected representatives) is dependent on the number of residents in the community. The mayor is both a member and chairman of the council, is responsible for the execution of the decisions made in the council, and is also the head of municipal administration (the executive). There may be tensions between the executive and the decision-making body in local politics, especially when the elected mayor faces a majority from a competing political bloc in the council. The resulting division of power between different political blocs, however, can be seen as a self-controlling element in the political system.

Bavarian municipalities are highly relevant in terms of economic importance, as the total combined expenditures of all municipalities in Bavaria represented more than 7% of Bavarian GDP in 2013.⁶ The primary responsibility of municipalities is to provide essential public services (e.g. land-use planning, provision of schools). In addition to performing these mandatory tasks, municipalities may choose to take on additional tasks that they feel will improve the economic, cultural and social welfare of the local population. Municipalities also have some fiscal rights. For example, they can determine the levels of local business and land value taxes and decide on land development. Municipal councils also have significant influence on the legal monetary rents payable to elected mayors both before and after elections.

Before an election (*ex ante*), municipalities with up to 10 000 inhabitants can choose whether the office of mayor is to be a full-time office, a part-time or an honorary (i.e. unpaid) position. The default option for smaller municipalities (up to 5 000 inhabitants) is a part-time mayor. This too can be altered through a simple majority decision of the local council. After an election (*ex post*), the actual level of remuneration of an elected mayor is determined by the council in compliance with a legal framework. For full-time mayors, council members must decide between two possibilities;⁷ while for part-time mayors, council members must choose a figure from a predetermined range of remuneration amounts. The differences in the legal rents that result are quite significant: A higher classification means a salary increase of a minimum of almost 9% for a full-time mayor.⁸

⁶ Author's calculation based on data from the German and Bavarian statistical bodies.

⁷ See figure 2 in Appendix.

⁸ According to the figures given for the highest possible classification listed in the remuneration table in force on March 1, 2010 (cf. Bayerisches Gesetz- und Verordnungsblatt, 2009b). For part-time mayors in municipalities with up to 2000 inhabitants, receiving the maximum level of remuneration instead of the minimum remuneration results in a salary that is 73.4% higher (cf. Bayerisches Gesetz- und Verordnungsblatt, 2009a). For part-time mayors in municipalities with 4000 to 5000 inhabitants, the possible salary increase is less dramatic, but can still be up to 7.9% (cf. Bayerisches Gesetz- und Verordnungsblatt, 2009a).

In Bavaria, established parties and citizen groups set up electoral lists for elections. Depending on the size of the municipal council, each voter possesses a specific quantity of votes to distribute. These votes can be assigned completely to one political group (cumulative voting) or they can be used to vote for candidates of different parties (vote-splitting). Although the local councils are determined by open representative elections, the only two political parties that play a significant role in Bavarian municipal politics are the Christlich Soziale Union e.V. (the CSU) and the Sozialdemokratische Partei Deutschlands (the SPD). In a particular locality, however, the political landscape is often enriched by the presence of local citizen groups. A political classification of the groups is not possible per se. Since information about municipal coalitions is not documented centrally, an allocation to one of the political blocs is difficult. However, data on independent mayoral elections show that local election groups often cooperate with an established party to appoint a mayoral candidate. Thus, cooperating groups and parties can be assumed to build a political bloc, and an assessment of the political balance of power in the communities is, therefore, possible.

3.2. Empirical strategy

Theoretical modeling and empirical findings suggest that the degree of political competition affects the distribution of political rents. Thus, in this analysis, a simple comparison of communities with and without a majority from the mayor's bloc in the local council might distort potential effects. Therefore, the quasi-experimental regression discontinuity design is used to analyze municipalities with comparable political conditions. In order to identify comparable municipalities, a political running variable can be used. In the analysis presented here, the running variable is calculated by subtracting the number of seats necessary to have the majority in the council from the seats held by the elected mayor's bloc.⁹ Positive values for the running variable indicate a council majority for the mayor's bloc. In cases where the value of the running variable is small, political power is assigned to a bloc almost by accident. In contrast, large values for this variable are a sign of very little political competition. Thus, the higher the absolute value of the running variable, the greater the power possessed by the ruling bloc.

The regression discontinuity design is estimated with following equation:

$$Q_i = \beta_0 + \tau T_i + \beta_1 \tilde{M} + \gamma_1 \tilde{M} T_i + \varepsilon_i,$$

whereat Q_i represents the dependent variable legal rents, \tilde{M} represents the running variable that results from taking the difference between the number of seats held by the Mayor's Party (M_i) and half of the total number of council seats (M_c). The running variable \tilde{M} represents a possible

⁹ Because the size of municipal councils differs, two running variables are created. One variable deals with the absolute number of seats, while the other deals with the proportional number of seats.

continuous relationship between mayor and payment of party political representation. The threshold value of the running variable is zero. The dummy variable T_i receives the value of one when the running variable is above this threshold and, thus, the mayor's party or bloc holds a majority of seats in the council. The integrated interaction term enables different slopes on either side of the threshold value. Finally, ε_i represents the error term.

The RDD approach, as used here, allows the estimation of the influence of a quasi-random political majority for one bloc on the remuneration level of mayors. Because of the quasi-random allocation, the effect of political power can be shown independent of the mayors' performance and characteristics. This approach, therefore, handles endogeneity concerns. Possible reverse causality - where good political administration and good political campaigning result in a majority for the mayors own block, and, therefore, a high level of mayoral remuneration - can also be ruled out because of the quasi-experimental nature of the method.

3.3. Data

In the period from 1990 to 2008, four elections were held (1990, 1996, 2002, 2008) and each municipal council had to make four decisions on the distribution of legal political rents. Information on municipality characteristics, municipal budget and municipal election results provided by Bavaria's State Office for Data Processing and Statistics (Bayerisches Landesamt für Statistik) are used in this analysis.

The distribution of political rents is measured in the present analysis by the legal base remuneration of Bavarian mayors as decided upon by municipal councils. The amount of this rent is influenced not only by the selfish motives of politicians. The electorate may also have an interest in high levels of political remuneration for political leaders, in that a high salary can be expected to generate a higher level of personal commitment in a politician. In addition, the hope is that high salaries will result in self-selection of highly suitable candidates in the applicant pool. Both of these arguments apply, however, only to ex ante rent decisions. Thus, the ex post rent decision is of particular interest in this analysis, because the members of the local council (with the exception of the mayor) have no personal financial interest in it. As previously mentioned, the rents for mayors in full-time offices are determined by assignment to one of two classifications. This binary rent allocation decision requires clear positioning of the council. Under these circumstances, it is possible to examine whether political relationships generate effects.

Since ex post rent decisions are not recorded centrally, information on the actual remuneration level of mayors was gathered through a survey of all 2056 Bavarian municipalities conducted in 2011. Observations for 605 rent decisions were obtained, of which 461 contain information on full-time

mayors. Overall, more than 17% of Bavarian communities disclosed the council decision on rent allocation for at least one of the four terms investigated. Concerns about self-selection were ruled out using a unit non-response analysis, as the responding municipalities did not differ significantly from the non-responding municipalities (see table 6 in the Appendix).

Data on local council elections and mayoral elections are extensive and detailed, but come with some inaccurate categorization of council seats.¹⁰ In order to enable an unambiguous bloc allocation of seats, extensive additional inquiry was carried out for municipalities that responded to the survey. Nevertheless, several observations still had to be excluded in order to guarantee adequate data quality.

In the end, 325 observations are used in the analysis, 264 of which are from municipalities with full-time mayors. The literature illustrates various methods which have been used to measure the level of political competition. For a first analysis presented here, I follow the approach of Benito et al. (2014), who generate a competition dummy variable. This dummy variable receives the value of 1 when the mayor does not have a majority in the local council; otherwise, it is set to 0.

To enable the use of the regression discontinuity (RDD) approach, a second index for political competition is created. The running variable of the RDD is generated here by subtracting 50% of the total number of council seats from the council seats held by the mayors' bloc. Another method to calculate the running variable is to subtract 0.5 from the vote share of the mayors' bloc. Values greater than zero indicate a majority for the mayor' bloc, and high values indicate a significant election victory for that bloc. The distance to the power threshold is significant, because, assuming a single peaked symmetric density function of voters, the number of swing voters decreases with the distance to the threshold.¹¹ Theoretical modeling, thus, predicts that rent-seeking behavior means a smaller number of lost votes the greater the victory.

This analysis focuses on full-time mayors, because the binary scheme used to choose the remuneration level for full-time mayors provides appropriate data. In Table 1, the values for the dummy variable for political competition and the two running variables indicate that in almost 50% of the 264 municipalities with full-time mayors, the mayor's bloc has enough council seats to make decisions on their own. On average, a council is composed of 20 elected representatives, and the average number of females holding these seats is nearly 3. For 67 municipalities with data for a minimum of two terms, the ruling block lost the majority in councils in 37% of the cases, and in 25% of the cases, the party affiliation of the mayor changed.

¹⁰ Collaboration between different groups results in ambiguity, because seats which are gained in any given election are attributed to the category „joined election list“. Whenever multiple collaborations exist in a municipality, these seats cannot be easily attributed to any specific collaboration.

¹¹ Cf. Solé-Ollé and Viladecans-Marsal (2013) for extensive discussion.

Table 1 Summary Statistics

	N	Mean	Median	SD	Min	Max
			Full-time Mayor			
Political competition (dummy)	264	0.545	1	0.499	0	1
Running variable (absolute)	264	- 0.261	-0.5	2.070	- 5.5	7.5
Running variable (%)	264	-0.0124	-0.024	0.105	-0.264	.5
Council seats	264	20.007	21	5.117	13	41
Council seats women (absolute)	264	2.890	3	2.666	0	12
Council seats women (%)	264	0.141	0.143	0.112	0	0.48
Change council majority	67	0.373	0	0.487	0	1
Change mayor	67	0.253	0	0.438	0	1
Remuneration category high (dummy)	264	0.723	1	0.448	0	1
Remuneration (€/month; absolute)	264	4717.07	4730.7	878.1	2587.38	7381.62
Remuneration (€/month; per capita)	264	0.9168	0.893	0.460	0.147	2.781
Population (absolute)	264	7793.985	5082	7364.72	1226	44255
Population index (standardized)	264	0.485	0.5027	0.286	0.002	0.991
Tax (€; per capita)	264	384.01	205.247	1078.42	25.58	16422.9
Price construction land (per sqm.)	189	119.040	88.760	110.519	12.96	899.76
Quality (Mayor)	264	3.344	4	0.826	2	4
Age (Mayor) Alter	264	50.155	51	7.043	29	65
Male (Mayor)	264	0.946	1	0.224	0	1
Conservative (Mayor)	264	0.595	1	0.492	0	1

Notes: Table 1 presents the summary statistics for all municipalities with full-time mayors.

Sources: main statistical body of Bavaria; own survey

The population size of a municipality determines the options for legal political rents, and communities are grouped in different size classes according to their population. Thus, within its particular group, a municipality can be relatively small or relatively large.¹² This relative size could be used as a reference point by council members when deciding on the distribution of political rents. An index with values between 0 and 1 is constructed here to represent the relative size in the analysis. This index denotes the distance of a municipality from its group boundaries, and is calculated using the following formula:

$$\frac{N_i - N_{min}}{N_{max} - N_{min}},$$

where N_i represents the number of inhabitants, N_{min} indicates the value for the lower limit for remuneration for a given municipality size category, and N_{max} the value for the upper remuneration limit for that municipality size category. Communities of all relative sizes are represented in the data set (see table 1).

¹² For the remuneration of full-time mayors, the following population thresholds are currently in force: 2000, 3000, 5000, 10000, 15000, 30000, and 50000.

Table 2 Remuneration Level of Mayors by party affiliation and level of opposition in municipal council

	Total	Mayor CSU	Mayor SPD	Mayor VG
	Full-time Mayors			
Number of municipalities	264	157	80	27
% mayors receiving maximum rent	0.72	0.73	0.71	0.7
	Full-time Mayors (own majority)			
Municipalities	120	98	17	5
% max. rent	0.76	0.75	0.94	0.4
	Part-time Mayors			
Municipalities	60	37	13	10
% max. rent	0.88	0.86	0.92	0.9
	Part-time Mayors (own majority)			
Municipalities	33	28	3	2
% max. rent	0.88	0.86	1	1

Notes: Table 2 presents an overview of municipal rents. The council is the decisive body and decides on rents. For full-time mayors, the council must choose from two remuneration level options, while for part-time mayors the remuneration level is chosen from a range of possible values.

The tax revenues available to a municipal government and the existing price levels in a given municipality are further factors that can influence the amount of legal political rents. Information on overall tax revenues is provided in table 1 as well. Here, the average price paid per square meter construction land is used as a proxy for the consumer price index. Furthermore, personal characteristics of politicians – such as quality (i.e. professional experience and education), gender, and age - might affect the level of compensation they receive. A dummy variable is also included which has a value of 1 when a conservative politician (i.e. affiliation with the CSU) holds the mayor's office.

In addition, it is clear that over 70% of all full-time mayors receive high rents. Taking into account the various remuneration groups and levels, on average, the basic income for full-time mayors is about € 4717.¹³ Combining this information with population numbers shows that, on average, a full-time mayor earns about 92 Cent per inhabitant, whereas there are big differences between the municipalities. Comparing communities with and communities without a council majority from the mayor's bloc illustrates that those mayors whose party/bloc hold a council majority tend to obtain higher rents (see Table 2).

¹³ A mayor's age is also considered in this classification. The values given here are in 2005 prices.

Table 3 Probit Regression

(I)	Municipalities – more than 4999 but less than 9999 inhabitants							
Political Competition	-0.555 (0.365)	-0.642* (0.343)	-0.577 (0.381)	-0.639* (0.363)	-0.653* (0.377)	-0.690* (0.385)	-0.683* (0.376)	-0.830** (0.397)
Quality		0.253 (0.232)	0.258 (0.245)	0.194 (0.255)	0.250 (0.264)	0.258 (0.267)	0.278 (0.267)	0.226 (0.311)
Population-Index			2.416*** (0.727)	2.428*** (0.728)	2.677*** (0.801)	2.695*** (0.792)	2.685*** (0.809)	3.877*** (1.075)
Tax Revenues (ln)				0.573** (0.246)	0.509** (0.240)	0.522** (0.237)	0.522** (0.243)	0.605** (0.268)
Male					1.354 (0.854)	1.389* (0.822)	1.453* (0.839)	1.578 (1.011)
Conservative-Dummy						-0.166 (0.428)	-0.178 (0.440)	-0.244 (0.531)
Age							0.107 (0.303)	0.413 (0.386)
Age ²							-0.001 (0.003)	-0.004 (0.004)
Price construction land								-0.413 (0.292)
Pseudo R ²	0.033	0.054	0.220	0.274	0.292	0.294	0.295	0.383
N	80	80	80	80	80	80	80	67
chi ²	2.31	4.34	13.76	20.54	18.96	21.68	21.59	26.47
(II)	Municipalities –less or equal to 4999 inhabitants							
Political Competition	0.124 (0.233)	0.096 (0.235)	0.205 (0.246)	0.237 (0.247)	0.230 (0.245)	0.420 (0.294)	0.418 (0.307)	0.473 (0.338)
Quality		0.175 (0.134)	0.158 (0.140)	0.179 (0.140)	0.202 (0.147)	0.212 (0.144)	0.240 (0.152)	0.078 (0.193)
Population-Index			1.188** (0.535)	1.183** (0.527)	1.182** (0.528)	1.258** (0.528)	1.359** (0.573)	0.654 (0.686)
Tax Revenues (ln)				0.280* (0.152)	0.296* (0.152)	0.299** (0.152)	0.259* (0.155)	0.282 (0.225)
Male					0.265 (0.311)	0.277 (0.314)	0.145 (0.300)	-0.477 (0.519)
Conservative-Dummy						0.437 (0.285)	0.480 (0.299)	0.616* (0.370)
Age							-0.022 (0.182)	-0.227 (0.238)
Age ²							0.001 (0.002)	0.003 (0.002)
Price construction land								0.180 (0.213)
Pseudo R ²	0.002	0.012	0.055	0.076	0.078	0.093	0.112	0.107
N	130	130	130	130	130	130	130	75
chi ²	0.28	2.06	6.70	11.90	11.98	15.21	15.95	13.68

Notes: Political rent is the dependent variable. (I) refers to municipalities with more than 5000 but less than 9999 inhabitants. (II) refers to municipalities with less than 4999 inhabitants. Standard errors are given in parentheses and are clustered on municipal level. *** p<0.01; ** p<0.05; * p<0.1

Table 4 Council majority and Mayors' rents

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fulltime Mayor – Municipalities between 5000 and 9999 inhabitants							
effect	0.313**	0.416**	0.360**	0.237*	2.450**	2.450**	0.452**	0.378**
	(0.120)	(0.191)	(0.142)	(0.137)	(0.900)	(0.900)	(0.176)	(0.171)
control variable	-	-	-	ja	-	-	-	ja
N	32	55	79	79	32	32	68	68
R ²	0.143	0.09	0.126	0.264	0.171	0.171	0.085	0.169
F	6.73	2.37	5.76	9.51	.	.	2.79	4.36
	Fulltime Mayor – Municipalities with less than 5000							
effect	-0.061	-0.162	0.018	0.013	-0.147	-1.736	-0.186	-0.232
	(0.132)	(0.210)	(0.157)	(0.156)	(0.186)	(1.240)	(0.213)	(0.210)
control variable	-	-	-	ja	-	-	-	ja
N	63	105	128	128	40	63	105	105
R ²	0.004	0.011	0.01	0.072	0.022	0.03	0.013	0.087
F	0.21	0.43	0.33	2.03	0.62	0.86	0.52	1.91

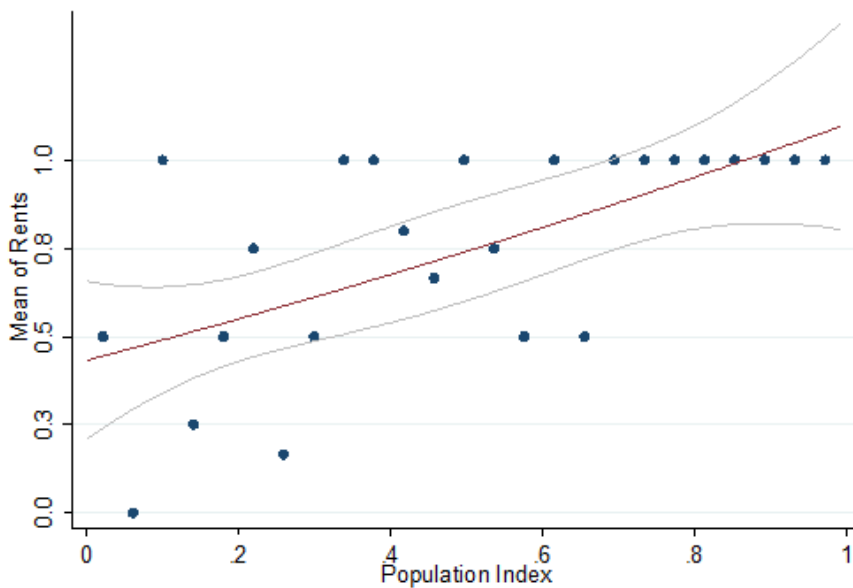
Notes: Political rent is the dependent variable. In (1) to (4) linear regressions with different bandwidth around threshold are performed, absolute seats running variable is used. In estimations (5) to (8) seat share is used as running variable. The standardized population index is included as control variable. Standard errors are given in parentheses and are clustered on municipal level. *** p<0.01; ** p<0.05; * p<0.1; constant and running variables are not presented.

4. Results

The expectations derived from theoretical modeling are supported by a probit estimate. Table 3 illustrates that political opposition in the council limits the level of rents obtained by an elected mayor. In larger municipalities with between 5000 and 9999 inhabitants, a lower level of political competition reduces the probability of obtaining a high salary by approximately 25%. In accordance with the results reported by Benito et al. (2014), it becomes apparent that increasing tax receipts have a positive impact on political rents. Moreover, local political decision-making bodies are influenced by the relative size of municipalities. The closer municipalities are to the upper limit of their classification group, the more likely it is that the mayor will receive a high level of remuneration. Education, gender, age, and party affiliation do not play any significant role in determining the level of remuneration. This is consistent with results reported by Svaleryd and Vlachos (2009) who do not find any party-specific influence on rent allowances.

In addition to the probit approach described above, a RDD approach was carried out on the same data. Table 4 shows that for large municipalities, the fact that a mayor's party enjoys a majority in the municipal council increases the likelihood of a higher remuneration. This effect of political competition on rents is found for municipalities with populations between 5000 and 9999 inhabitants, and existent when using two different running variables. Using the minimum bandwidth

Figure 1 Population index and rent quota



Notes: Population index divided in 25 bins

around the threshold shows that the rate of maximum payment increases by 31.3 % when the mayor’s bloc holds the majority in the council. As expected, this effect increases for larger bandwidths.¹⁴

For smaller municipalities with full-time mayors, no significant increase in rents is shown with a majority council. This may be due to differing preconditions. Since as a default condition these municipalities have a part-time mayor, the mayors of these communities received rents higher than many other mayors of communities of this size before the election. This ex ante premium seems to have a regulating effect on ex post rents.

The probit approach shows that the population index does influence council member decision making with regard to mayoral rents. This finding is illustrated in figure 1. Given this finding, it seems appropriate to determine if municipalities close to the political threshold have significantly different values. Table 5 shows that municipalities that are just above the threshold, and thus, possess a majority for the mayors’ bloc, have higher population index values. Therefore, the population index is included in the RDD estimation as a control variable. Although including the control variable reduces the effect of politically motivated rent allocation, the effect is still statistically significant.

¹⁴ Bandwidths are chosen according to the research of Imbens and Kalyanaraman (2012).

Table 5 Control Variables close to population Thresholds

	(1)	(2)	(3)
Population-Index	0.167** (0.071)	0.229* (0.129)	0.212** (0.082)
N	32	55	79
R ²	0.069	0.049	0.049
F	5.622	2.098	2.702
Quality	0 (0.330)	0.273 (0.527)	0.16 (0.338)
N	32	55	79
R ²	0	0.058	0.059
F	0	0.972	1.101
Political Experience	-4.063 (2.384)	-3.579 (3.677)	-4.017 (2.739)
N	32	55	79
R ²	0.095	0.155	0.081
F	2.903	5.766	2.310
Incumbent	-0.188 (0.163)	-0.118 (0.259)	-0.300* (0.176)
N	32	55	79
R ²	0.043	0.082	0.052
F	1.331	2.081	1.514

Notes: Population-index, quality, political experience and an incumbency dummy are dependent variables. The results of linear estimations are shown for various different bandwidths around the threshold. Standard errors are given in parentheses, and are clustered on the municipal level. *** p<0.01; ** p<0.05; * p<0.1; constant and running variables are not presented.

5. Conclusion

This article analyzes data on monetary allowances for local Bavarian politicians to reveal the influence of political competition on political rent-seeking. In accordance with theoretical modeling, a council majority of the mayor's bloc is shown to positively affect the rent decision. This relationship is revealed only for big municipalities, whereas no such effects are observable for small municipalities. The article, thus, shows that high ex ante rents tend to mitigate ex post rents. This finding, as well as the fact that relative municipal size and tax revenues affect remuneration, could be due to the inclusion of objective criteria in the rent decision process.

The results of applying the regression-discontinuity approach show that political council majorities have causal effects on the level of mayoral remuneration. The probability of high legal rents rises by just over 30% when a mayor's bloc has control over a municipal council.

This article uncovers a link between rents awarded before (ex ante) and after (ex post) elections. Formal modeling and conducting further empirical evidence are potential directions for future research. In addition, a recent change in the legal remuneration framework provides the opportunity to examine the interaction of ex post and ex ante rents. Beginning with the local

elections held in 2014, the ex post choice options for full-time mayors were abolished. An analysis of the impacts of this legal change on the distribution of ex ante rents seems like a promising avenue for future inquiry.

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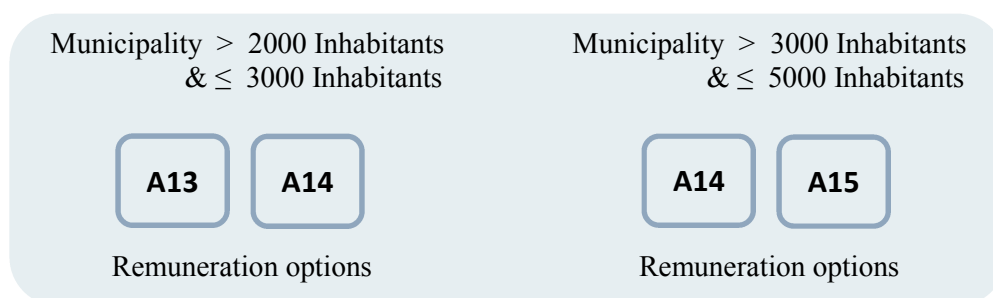
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Appendix

Figure 2: Mayors' Remuneration Framework



Notes: Beginning with local election of 2014 the choice options for full-time mayors are abolished.

Table 6 Unit Non-Response Analysis

Responding municipalities	coefficient	Standard error
Political Competition	-0.184*	(0.098)
Quality (mayors)	0.116**	(0.055)
Population index (standardized)	0.154	(0.168)
Tax Revenues (ln)	0.107	(0.151)
Male	0.0208	(0.221)
Conservative Dummy	0.095	(0.096)
Age	0.003	(0.007)
Price construction Land (sqm)	-0.001	(0.001)
N		1018
pseudo R ²		0.012

Notes: Table 6 shows the results of a unit non-response analysis (period: 2008 - 2014).

Sources: own survey

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