Center for European, Governance and Economic Development Research
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Discussion Papers

Number 211 – June 2014

THE POLITICAL ECONOMY OF SPECIAL NEEDS TRANSFERS: EVIDENCE FROM BAVARIAN MUNICIPALITIES, 1993 - 2011

Thushyanthan Baskaran

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

ISSN: 1439-2305

The political economy of special needs transfers: evidence from Bavarian municipalities, 1993-2011

Thushyanthan Baskaran*
University of Goettingen

Abstract

This paper studies whether higher level governments treat politically aligned municipalities differently than unaligned ones when they provide special discretionary transfers to resolve acute fiscal problems (special needs transfers). By implementing a regression discontinuity design with a sample of municipalities in the German federal state of Bavaria over the period 1993-2011, I show that among the group of municipalities that receive special needs transfers of more than 10,000 Euros, those that are barely aligned with the state government have discontinuously higher debt, higher revenues from user fees and contributions, and higher local tax rates. Before the state government grants special needs transfers to aligned municipalities, they must evidently raise more own source revenues and experience worse fiscal difficulties than unaligned municipalities. Hence, aligned municipalities are treated less leniently.

Keywords: Special needs transfers, political alignment, state and local governments

JEL codes: H30, H71, H77

*tbaskar@uni-goettingen.de, Department of Economics, University of Goettingen, Platz der Goettinger Sieben 3, 37073 Goettingen, Germany, Tel: +49(0)-551-395-156, Fax: +49(0)-551-397-417.

1 Introduction

In many countries, municipalities depend on discretionary intergovernmental transfers from the central government to finance their activities. Ideally, central governments should allocate discretionary transfers only according to "objective" criteria such as fiscal need or economic conditions and ignore political considerations (Oates, 1972). Whether central governments conform to this ideal is an open question, however. Most of the available evidence suggests that they do not: central governments are often found to give more transfers to municipalities ruled by co-partisans (Solé-Ollé and Sorribas-Navarro, 2008; Arulampalam et al., 2009; Brollo and Nannicini, 2012).[1]

The existing literature studies primarily investment or infrastructure transfers, yet such transfers are not the only discretionary transfer program that central governments run. Another important type of discretionary transfers are paid to alleviate acute fiscal problems or unforeseen fiscal needs in selected municipalities. It is an open question whether political considerations bias the allocation of such *special needs transfers*. In this paper, I study this question with a dataset that consists of all special needs transfer payments (*Bedarfszuweisungen*) by the Bavarian state government to selected Bavarian municipalities over the period 1993-2011.

[1] Two explanations for why aligned municipalities receive higher transfers have been prominently discussed in the literature. First, that the central government wants to maintain support in its "core" municipalities– i. e. where the local party branch has a decisive majority (Cox and McCubbins, 1986). Second, that by giving aligned incumbents additional resources, the central government wants to improve its electoral prospects in "swing" municipalities – i. e. where the ruling party has only a narrow majority (Dixit and Londregan, 1998). The two explanations have slightly different but not necessarily conflictive empirical implications. If the central government primarily wants to support core municipalities, those where aligned parties have larger margins of victory should receive more transfers. If the central governments primarily wants to sway votes in swing municipalities, transfers to those municipalities where aligned parties have narrower margins of victory should be higher (Brollo and Nannicini, 2012). A third explanation, albeit within the context of a specific institutional setting, is provided by Albouy (2013). He shows that in the US, states represented by members of Congress that are aligned with the respective majorities in the Senate and the House receive higher federal grants. His explanation for this reduced form effect are not electoral considerations, but that members of Congress that belong to the majority party can more easily build coalitions for spending projects that benefit their constituencies.

To my knowledge, the relationship between political alignment and special needs transfers has not been analyzed before. What has been previously explored are subnational bailouts, which are a prominent example for special needs transfers (Kornai, 1986; Wildasin, 1997; Goodspeed, 2002). However, existing empirical analyses focus on the non-political aspects of bailouts (Bordignon and Turati, 2009; Pettersson-Lidbom, 2010; Baskaran, 2012). An exception is Sorribas-Navarro (2011) who finds that political alignment is irrelevant for the likelihood of bailouts in Spain. However, she does not study proper bailout transfers but generic discretionary and non-discretionary transfers and consequently draws conclusions only regarding "implicit" bailouts.[2]

According to official Bavarian regulations, special needs transfers are supposed to help municipalities that face acute revenue losses or expenditure obligations (e. g. substantial drop in local tax revenues or natural catastrophes). Municipalities have to apply for these transfers. The state government claims that an application will only be successful if the applying municipality fulfills two conditions. First, the municipality should not be responsible for the revenue losses or expenditure obligations. Second, the municipality should have adopted all reasonable measures to overcome the fiscal difficulties on its own. However, there are neither clear numeric thresholds nor other transparent criteria against which municipalities applying for special needs transfers are evaluated. Whether or not a municipality receives special needs transfers is therefore ultimately a discretionary decision by the state government.

Given this institutional environment, I study in this paper whether immediately before special needs transfers are granted, the fiscal situation of aligned municipalities differs from that of unaligned municipalities. This research question is different from the one in most of the existing literature on political manipulation of intergovernmental transfers. Contributions such as Solé-Ollé and Sorribas-Navarro (2008), Arulampalam et al. (2009), and Brollo

[2]Another related study is Baskaran (2013). He studies the electoral consequences of bailouts in the German state of Hesse and finds that they are largely neutral. He does not explore the political determinants of bailouts, however.

and Nannicini (2012) ask whether politically aligned municipalities receive more transfers than unaligned ones. The authors formulate their research question in this way because the type of transfers that they study – notably investment and infrastructure transfers – are granted to all municipalities and without strong conditions. The special needs transfers that I study, on the other hand, are granted only to a relatively small number of municipalities under supposedly strict conditions. Whether politically aligned municipalities receive higher special needs transfers is therefore not the salient question in Bavaria. The salient question is whether among the group of municipalities that receive special needs transfers, those that are aligned with the central government receive them more – or less – easily.

Since municipalities in Bavaria are supposed to face severe fiscal difficulties and to have done everything possible to overcome the difficulties on their own before they are eligible for special needs transfers, an obvious way to explore whether these transfers are granted in view of political alignment is to compare levels of debt, the amount of revenues from user fees or contributions, and local tax rates in aligned and unaligned municipalities immediately before they receive the special needs transfers. Higher levels of debt signify a worse fiscal situation, while more revenues from user fees and contributions or higher tax rates signify more own efforts. Consequently, if among the group of municipalities that receive special needs transfers, those politically aligned with the center display higher levels of debt, higher own-source revenues, and higher local tax rates, they are evidently treated less leniently.[3]

The underlying argument is that if the state government allocated special needs transfers purely according to objective criteria, aligned and unaligned municipalities should be iden-

[3]Another potential approach to identify partisan biases in the allocation of special needs transfers is to explore whether among the group of municipalities that apply for special needs transfers, those aligned with the state government are more or less likely to have their application approved. Such a design, however, is not a viable alternative in my setting because whether a municipality applies for additional transfers is not random but may depend on whether it is currently aligned with the state government. For example, aligned municipalities might be less likely to apply because they anticipate that, ceteris paribus, they are less likely to receive special needs transfers (see the results in this paper further below). Therefore, observing differences in the propensity that an application is successful would not allow for meaningful inference regarding whether or not the state government exhibits partisan biases.

tical in expectation. In particular, aligned and unaligned municipalities that receive special needs transfers should be similar with respect to their fiscal variables. A systematic relationship of municipalities' fiscal characteristics with partisan variables within the subsample of special needs municipalities can hence be interpreted as evidence that political considerations are important for the central government's transfer allocations.[4]

To credibly identify whether there is a relationship between political alignment and municipalities' fiscal characteristics within the subsample of municipalities that receive special needs transfers, I implement a regression discontinuity design with the party ideology of the current mayor of a Bavarian municipality as treatment and her vote share in the previous mayoral election as forcing variable.[5] Defining the alignment of a municipality based on the alignment of the mayor is reasonable because the mayoral office is the decisive political institution in a Bavarian municipality. Second, I focus only on substantial special needs transfers, i. e. whose volume is at least 10,000 Euros. Since the state government regularly pays minor amounts to municipalities for various reasons that are not directly related to the fiscal situation of a municipality (see below for details), the political dynamics determining minor special needs transfer payments differ from those for more substantial transfers.

The results suggest that aligned municipalities are treated less leniently than unaligned ones by the state government. Those municipalities where the mayor shares the same ideology as the state government exhibit discontinuously higher levels of debt, higher revenues from user fees and contributions, and higher local tax rates than unaligned municipalities immediately before they receive special needs transfers. The behavior of the central government

[4]Note that while I explore in this paper only six fiscal variables, the above argument would extend to other municipal characteristics as well, in particular to economic or demographic variables.

[5]While the argument that there should not be a systematic relationship between alignment status and the propensity to receive special needs transfers also applies to municipalities where the vote share of the party aligned with the state government is further away from the 50% threshold, omitted variables cannot be ruled out for such observations. For example, poorer municipalities might be more likely to vote for left-wing parties and at the same time be more likely to receive special needs transfers. The RDD design, if it is valid, ensures that municipalities with different partisan affiliations are similar with respect to all their characteristics except political alignment.

when allocating special needs transfers hence differs form what previous studies on political manipulation of intergovernmental transfers have found. As noted above, these studies find that aligned municipalities receive more transfers and are hence treated better. One plausible explanation for the opposite finding in this paper is that special needs transfers carry a stigma in Bavaria: they are considered to be the municipal equivalent of welfare benefits. The state government might therefore be concerned about negative reputational effects if too many aligned municipalities receive such transfers. Alternatively, the state government may want to signal that it is impartial by explicitly favoring unaligned municipalities. Given that their total annual volume is relatively small, e. g. when compared to investment transfers, favoring unaligned municipalities in the allocation of special needs transfers would be a cheap way to signal impartiality.[6]

2 Institutional setting

2.1 Municipal fiscal arrangements

The setting in this paper is Bavaria, one of the largest federal states of Germany. In 2013, it had about 12.5 million inhabitants who lived in 2056 municipalities. The number of municipalities has changed slightly over the years due to amalgamations. Bavarian municipalities have, as in all other German states, significant expenditure and revenue autonomy. On the expenditure side of the budget, municipalities may independently determine the provision

[6]Another possible explanation why the state government grants fewer special needs transfers to municipalities where the aligned party has narrowly won is that in these municipalities, the aligned party has already an incumbency advantage for the next election. The state government might therefore decide to allocate scarce resources to municipalities where the aligned party bloc has narrowly lost because there additional resources might make a difference in the next election. This explanation is implausible, however. First, since the special needs transfers are granted relatively infrequently, they are not a useful means to pursue electoral goals. Second, additional transfers to municipalities where opposition parties narrowly won primarily help the opposition parties in the next local election, since these parties gain credit for any additional expenditures or tax reductions that are financed by the special needs transfers. The state government would only benefit if these transfers sway voters at the next state election. However, the electoral rule for state elections is proportionality. Hence, the benefits of targeting selected municipalities with higher transfers are small.

levels of so called voluntary tasks (*freiwillige Selbstverwaltungsaufgaben*).[7] Important voluntary tasks are the provision of cultural venues (e. g. theaters), drug addiction counseling, and old age care. On the revenue side, municipalities are allowed to levy local taxes, impose user fees (*Gebühren*), and raise contributions (*Beiträge*). The notable local taxes are the two property taxes – labeled property tax A and B – and the business tax. Of these, the business tax raises the most revenues. Revenues from the business tax in Bavaria were 7.6bn Euros in 2012 (ca. 22% of gross municipal revenues). The property tax B, which is a tax on non-agricultural property, is also responsible for a large share of municipal tax revenues. Revenues in 2012 were 1.6bn Euros (ca 5% of gross revenues). The property tax A, a tax on agricultural properties, is less important in terms of revenues (revenues in 2012 were 83m Euros, ca. 0.2% of gross revenues). User fees are charged by municipalities for the actual use of specific services, such as the issue of certificates. In 2012, Bavarian municipalities raised 2.4bn Euros through user fees (ca 7% of gross revenues). Contributions are imposed on inhabitants for the *possibility* of using a service, for example to cover the cost of a local road. Revenues from contributions in 2012 were 475m Euros (ca 1.4% of gross revenues).

2.2 Special needs transfers

In addition to own source revenues, municipalities are financed by transfers provided by the state government. These transfers can be rule-based or discretionary. The state government provides rule-based transfers annually according to presumably objective criteria, such as the municipality's population size and its own source tax revenues. The state government grants the second set of transfers discretionarily. An important discretionary transfer pro-

[7] There are other public goods and services that municipalities are required to provide by state or federal law. These public goods are either called own compulsory tasks (*pflichtige Selbstverwaltungsaufgaben*) or transferred compulsory tasks (*übertragene Aufgaben*). Own compulsory tasks are for example fire protection or child care. Transferred compulsory tasks are technically tasks that should be assumed by the state or the federal government, but which have been passed on to the municipalities by these higher tiers. Examples for transferred compulsory tasks are construction supervision (*Bauaufsicht*) or the provision of public order (*Ordnungsverwaltung*).

gram are the special needs transfers (*Bedarfszuweisungen*).[8] According to Art. 11 of the local fiscal equalization law (FAG), the special needs transfers are provided to account for "extraordinary circumstances" and "special tasks" and, more generally, to account for fiscal "strains" following the distribution of the rules-based transfers. Municipalities have to submit an application to receive special needs transfers for a given year. In the next year (when municipal fiscal data for the previous year is available), the state finance ministry decides in consultation with the interior ministry about whether and how much special needs transfers should be provided to an applying municipality. A committee consisting of representatives of the municipalities advises the state finance ministry, but has no authority to impose decisions on the state government. Decisions are reached every year in one single meeting (*Verteilerausschusssitzung*). Payments take place in the same year.

In addition to the rather general conditions specified in the equalization law, the state government has formulated more specific but unofficial rules for the provision of special needs transfers.[9] According to these rules, the state government supposedly provides special needs transfers primarily in response to revenue losses or expenditure obligations for which the applying municipality was not at fault (substantial drop in business tax revenues, natural catastrophes, etc.). At the end of the sample period (starting in 2006), substantial special needs transfers were also granted to 32 municipalities to facilitate budget consolidations. Again, municipalities supposedly had to suffer severe fiscal problems to be eligible for these transfers.

There are some further reasons why special needs transfers can be provided, for example to acquire external expertises on how to consolidate budgets or in preparation of municipal cooperations or amalgamations. These transfers are presumably minor and also follow a

[8]Note that the definition of *Bedarfszuweisungen* varies between the federal States. Here, I describe how they are defined in Bavaria.

[9]See Bayrisches Staatsministerium der Finanzen (2008) and `http://www.stmf.bayern.de/kommunaler_finanzausgleich/allgemeines/bedarfszuweisungen/`.

different dynamic than more substantial transfers. Since I have no information on the specific reason why special needs transfers were provided, I ignore all instances with special needs transfers of less than 10,000 Euro in the RDD sample. Thereby, I attempt to account for the fact that the allocation of special needs transfers of smaller amounts presumably follow a different rationale than the allocation of more substantial transfers (see Section 4 for some additional details regarding this issue).

As mentioned, the state government claims that special needs transfers will only be granted if a municipality has taken all reasonable steps to overcome its fiscal problems on its own. More specifically, a municipality should, inter alia, levy sufficiently high user fees for public services (e. g. for water supply and waste disposal), at least average business and property tax rates, and sufficient contributions (e. g. for road construction). A municipality should also not provide more than the average amount of voluntary public goods.

Hence, substantial special needs transfers are provided only under certain conditions that relate, first, to the current fiscal situation of the municipality: the municipality should experience fiscal problems. Second, they relate to efforts by the municipality to overcome the fiscal problems on its own: it should levy sufficiently high user fees and contributions and impose reasonably high tax rates. However, no specific thresholds exist that would automatically induce special needs transfers and there is consequently sufficient leeway for the state government to allocate these transfers according to its own discretion. In particular, the state government may allocate special needs transfers according to political considerations even if it purports to only factor in "objective" fiscal and economic variables.

2.3 Politics in Bavaria

The political system at the state level in Bavaria is a parliamentary democracy. All inhabitants elect in regular elections the state parliament, which in turn elects the state government. A stable government requires at least 50% of the seats in parliament. Governments can be

formed either by a single party or by a coalition of parties from the two large political blocs. The right-wing party bloc is primarily comprised by the CSU (*Christlich Soziale Union* - Christian Social Union)[10] and the FDP (*Freie Demokratische Partei*, Free Democratic Party). The left-wing party bloc is primarily comprised by the SPD (*Sozialdemokratische Partei*, Socialdemocratric Party of Germany) and the Greens. In addition, there are a number of smaller right-wing, left-wing, and independent parties.

Since the late 1950s, the Bavarian state government was led by the CSU, a unique length of tenure for post-World War II Germany. Consequently, the state government was also led by the CSU throughout the sample period. Specifically, between 1993 to 2008, the CSU was able to form a single-party government. In 2008, the CSU had to form a coalition with the FDP. This coalition lasted until 2013.

At the municipal level, Bavaria uses a mayor-council system. That is, the decisive municipal political office is the mayor, who has a strong position relative to the local council. She is the head of the administration and has veto rights over council decisions. She also represents the municipality to third parties. It is she who proposes the annual budget and who submits the application for any special needs transfers to the state government. Consequently, it is appropriate to define political alignment according to the party of the mayor.

The mayor in all municipalities is elected in regular[11] elections according to a qualified plurality rule. That is, a candidate has to have an absolute majority of the votes to be elected. If no candidate has an absolute majority in the first round, a run-off ballot is held between the two candidates with the largest vote share in the first ballot. Typically, the two largest state-level parties (the CSU and the SPD) support a different candidate. The smaller

[10]The CSU is a regional variant of the better known CDU (*Christlich Demokratische Union*, Christian Democratic Union) which is the most important right-wing party in the rest of Germany.

[11]The mayoral elections are not synchronized with the state elections. They are in general synchronized with the local council elections, but for individual municipalities the dates might deviate temporarily due to unforeseen events (e. g. death of a mayor). In these cases, the length of the mayor's term is adjusted such that the next mayoral election takes place together with the next council election.

national parties either support one of the candidates fielded by the larger parties or present their own candidates. Finally, local voter initiatives also field candidates that are sometimes successful.

3 Empirical model

To establish whether the state government treats municipalities with aligned mayors differently than unaligned municipalities when it provides special needs transfers, I focus on close mayoral elections and implement a RDD. The general idea, as usual in RDDs, is that municipalities with barely aligned and barely unaligned mayors are comparable in all characteristics while they differ decisively in their alignment status. However, my design differs from traditional RDDs employed in the literature on intergovernmental transfers in one subtle way. As mentioned, most existing quasi-experimental studies relate alignment status to contemporaneous transfer receipts. That is, they explore if municipalities that are barely aligned in year t receive more or fewer transfers than unaligned ones in the same year. The purpose of the RDD in the earlier papers is to ensure that pre-determined municipal characteristics are balanced, thereby avoiding an omitted variables bias.

In contrast, I study whether aligned municipalities that receive special needs transfers are different with respect to their pre-determined characteristics. In other words, I not only allow but even expect that pre-determined characteristics between aligned and unaligned municipalities differ. The balance in municipal characteristics ensured by the RDD in my setting is therefore a theoretical one. The RDD here ensures that *if* alignment status did not matter, pre-determined characteristics of municipalities that received special needs transfers would be the same in CSU and non-CSU municipalities.

Hence, I estimate variants of the following parametric RDD model as a baseline:

$$Y_{i,t-1} = \beta D_{i,t} + g(V_{i,t}) + D_{i,t} \times g(V_{i,t}) + \epsilon_{i,t} \quad \text{if } i,t \in N, \tag{1}$$

where N indicates the subgroup of municipality-year pairs with positive special needs transfers.

This specification relates the predetermined fiscal variable $Y_{i,t-1}$ of a municipality to a dummy variable $D_{i,t}$ that captures whether the mayor of the municipality has the same party affiliation (CSU) as the state government in the year when it receives the special needs transfers. To account for factors correlated with both alignment status and fiscal outcomes, I include a flexible polynomial of the normalized vote share of the CSU candidate, denoted V. The aliment dummy is 1 when $V \geq 0$ and 0 else. Thus, I effectively compare municipalities where the CSU candidate barely won with municipalities where the CSU candidate barely lost.

I look at the following six municipality-level fiscal variables: i) debt per capita, ii) revenues from user fees per capita, iii) revenues from contributions per capita, iv) property tax rate A, v) property tax rate B, and vi) business tax rate. As mentioned, municipalities are supposed to receive special needs transfers only if they face severe fiscal difficulties. These difficulties should be reflected in their stock of debt. The second condition for special needs transfers is that a municipality has attempted to overcome its fiscal problems on its own. This condition implies that all recipient municipalities collect comparably large amounts of user fees and contributions and impose similarly high tax rate. Municipalities have autonomy over these variables and can hence adjust them to maximize their chances of receiving special needs transfers.

To account for short-run fluctuations, I use the average values in the three years before special needs transfers are granted as dependent variables. Thus, I explore whether average

debt, revenues from user fees and contributions, or tax multipliers in the three years preceding the granting of special needs transfers are higher or lower in CSU led municipalities. In the supplementary materials, I show that using five year averages or values in the year that immediately precedes the year when the transfers were granted does not qualitatively affect the results (see Tables S.4 and S.5).[12]

I estimate several variants of Equation 1. I report results with and without year fixed effects to account for e. g. inflation (debt and revenues from user fees and from contributions are in nominal terms) or for secular changes in tax rates. Technically, year fixed effects are not necessary in RDD designs as observations to the left and the right of the threshold should be identical in expectation, but they may matter in small samples. They may also increase efficiency. I do not include municipality fixed effects. First, municipality fixed effects, too, are not necessary in valid RDD designs. More importantly, there is insufficient variation within municipalities in alignment status among the (small) subgroup of municipalities that received special needs transfers more than once.

4 Data

All data is from the Bavarian Statistical Office. All fiscal variables are freely available from an online database.[13] Data on mayoral elections and special needs transfers were obtained by request.

Figure 1 shows the number of special needs transfers of various volumes during the 1993-2011 period. In 44 instances, municipalities received more than one million Euros. There are also 65 cases where special needs transfers were between 500,000 and one million Euros. On the other hand, there are more than 1000 cases where a municipality received less than

[12]Even though another requirement for the provision of special needs transfers is that voluntary expenditures should be low, I do not have data that explicitly distinguishes between voluntary and involuntary expenditures. I therefore omit an analysis of expenditure variables.

[13]`https://www.statistikdaten.bayern.de/genesis`

10,000 Euros. Figure 2 shows the spatial distribution of special needs transfer recipients. According to subfigure (a), the recipients are clustered around the north and east of Bavaria. While the number of recipients of special needs transfers of a substantial volume (i. e. more than 10,000 Euros) is smaller, these too are clustered around the north and east (subfigure b). These municipalities also received the largest total volume of transfers during the sample period (subfigure c). Figure 3 shows a map detailing the local political landscape in Bavaria. Subfigure (a) of Figure 3 indicates the share of years during the 1993-2011 period in which a municipality had a CSU mayor. Subfigure (b) shows the average vote share of the CSU candidate in all mayoral elections during the sample period. Both subfigures show that support for CSU candidates is relatively evenly distributed, especially when compared to the spatial distribution of the special needs transfers. In particular, there is no clustering of support for the CSU around the north and east of Bavaria.

Figure 4 gives an impression of the political affiliation of the municipality-year pairs that received special needs transfers. Note that I had to make some coding decisions when classifying the ideology of the mayor. First, some candidates are supported by more than one party. I generally make the assumption that a candidate is a CSU candidate if the CSU is one of the supporters. This coding decision might be problematic for cases where one of the other supporting parties is the SPD. However, there are only six observations in the RDD sample where a candidate is supported by both the CSU and the SPD.

The second coding decision relates to the fact that mayoral elections are often multiple-candidate races and there is, therefore, no obvious running variable for the RDD. However, using the CSU vote share as running variable and thereby comparing municipality-year pairs where a CSU candidate barely won with observations where the CSU candidate barely lost circumvents this problem to some extent. One disadvantage of this approach is that I ignore to whom a CSU candidate lost. However, I show in the supplementary materials that the

results are robust when I compare CSU mayors either only to SPD mayors or only to mayors from parties other than the SPD (see Tables S.2 and S.3).

Another issue is that sometimes, none of the candidates receives an absolute majority in the first round. As mentioned above, a run-off election between the two candidates with the largest vote share is held in these cases. In years where there were both a regular and a run-off elections, I always use the vote share of the CSU candidate in the run-off as running variable in the RDD.

Among all 2328 municipality-year pairs with positive special needs transfers, 1098 had a CSU mayor, 638 a SPD mayor, and 593 mayors from other parties or independent candidates. Among the subset of observations that received more than 10,000 Euros as transfers, 456 had a CSU, 343 a SPD, and 235 other party affiliations. Finally, among the further subset of 796 observations that I use in most of the regressions (see below), 446 have a CSU, 248 have a SPD, and 92 have other party affiliations.

The sample in the baseline regressions is restricted to 796 municipality-year pairs for two reasons. As mentioned, the state government is more likely to manipulate transfer allocations in view of political considerations when their amount is substantial. Indeed, preliminarily analysis suggested that aligned municipalities are treated more favorably than unaligned ones for very small transfers.[14] When analyzing all transfer episodes simultaneously, the large number of small special needs transfer dominates the results and mask the significant alignment effects for the more substantial transfer payments. Hence, I focus in the baseline regressions only on transfers that have a total volume above 10,000 Euros. Focusing only on substantial transfers reduces the available number of observations to 1034.

The second reason why the number of observations is reduced is that in some municipality-year pairs, no CSU candidate participated in the election. More specifically, the running variable is missing for 238 observations. However, I show in the supplementary materials

[14]The regression results for the smaller transfers are available upon request.

(see Table S.1) that the results remain robust when the missing values for running variable for the CSU are set to -0.5 (i. e. the vote share is set to 0).

The histogram in Figure 5 gives an impression of the distribution of normalized vote shares of CSU candidates (CSU vote share - 0.5) in the restricted sample of municipality-year pairs with transfer receipts of more than 10,000 Euros and non-missing CSU candidate vote shares. The observations cluster around the 50% threshold, indicating that a relatively large number of observations is available in close neighborhoods of the treatment threshold.

One concern in RDD designs is manipulation of the running variables. If e. g. CSU supported candidates are more likely to win than to lose close elections, the assumption of local randomization in close neighborhoods of the threshold would be questionable. Table 1 gives a first impression about whether such manipulation is likely in the Bavarian setting. In the baseline sample, there are 38 observations within one percent to the left and the right of the threshold (i. e. with vote shares between 49 and 51 percent). Of these 15 have a CSU majority. That is, the number of CSU and non-CSU mayors is similar to the left and right of the threshold in very close neighborhoods. Even at larger neighborhoods around the thresholds, the number of observations with CSU and non-CSU mayors is very similar.

More formal evidence on the likelihood of manipulation is provided in Figure 6. This figure presents a McCrary plot for the normalized CSU vote share using the default bin size and bandwidth. There is clearly no discontinuity observable, indicating that manipulation is unlikely.

5 Baseline results

5.1 Graphical evidence

Before the RDD regressions, I collect graphical evidence based on RDD plots that relate political alignment to the three-year average of pre-treatment fiscal characteristics of munic-

ipalities in Figure 7. All variables are logged to allow for a percentage interpretation and to account for outliers.

The individual data points are averaged within bins of width 0.02 for presentational purposes. The size of the circles indicates the relative number of observations within each bin. The polynomial smooths are based on the original data points, using a bandwidth of 0.25, a degree of 2, and a triangular kernel. The plots also show the 90% confidence intervals.

Subfigure (a) shows that there is a positive discontinuity at the 50% CSU vote share for log debt per capita. The confidence intervals overlap in this figure, but the evidence nevertheless suggests that among the subgroup of municipalities that receive special needs transfers, CSU ruled municipalities have higher stocks of debt. Subfigure (b) shows the corresponding plot for user fees. Here, too, a positive discontinuity is observable, even though the confidence intervals again overlap. The same is true for contributions per capita. Note that this figure is somewhat stretched because of an outlier. Statistically more conclusive evidence emerges for the tax multipliers. The property tax A (subfigure d), property tax B (subfigure e), and business tax multipliers (subfigure f) in the three years preceding the special needs transfers in CSU municipalities are significantly higher than in non-CSU municipalities.

Overall, these plots suggest that CSU municipalities must have higher stock of debt, more revenues from user fees and contributions, and higher local tax rates before they are granted special needs transfers. CSU municipalities appear to be, in effect, treated less leniently than municipalities ruled by mayors that belong to other parties. CSU municipalities' fiscal situation is worse and their own source revenues and tax rates higher when they enter the group of special needs transfers recipients.

5.2 Regression results

5.2.1 Parametric RDD

Table 2 collects the baseline regressions results for the model specified in Equation 1. The structure of the table is as follows. Each set of rows is associated with a different dependent variable. The first column notes the number of municipalities (denoted I) and the total number of observations (denoted N) in the sample. The number of observations differ between sets of results because of missing values for the outcome variables. The next columns include increasingly flexible polynomials, from linear to quartic.[15] The final two columns include time fixed effects. The last column reports results with the most flexible polynomial (quartic), time fixed effects, and clustered standard errors (with the municipality as the unit of clustering). Note that standard errors are always robust to heteroscedasticity.

The results suggest that among the group of municipalities that receive special needs transfers, those with a CSU mayor have about 30 to 40 percent higher debt per capita than those with a non-CSU mayor. The estimates, however, are only significant in one model. User fees per capita in CSU municipalities are higher as well. The coefficients are significant for a linear and quartic polynomials and remain significant when time fixed effects are included. The coefficient becomes insignificant when standard errors are clustered, but the z-statistic is fairly large. CSU municipalities also have higher contributions per capita. The estimate for the more flexible polynomials indicates that they are about 50% to 60% larger. The coefficient is consistently significant. CSU municipalities also have higher tax multipliers. The coefficient is significant and positive in basically all tax multiplier regressions. The only exception is for the property tax B multiplier when clustered standard

[15] I experimented with cross-validation procedures to determine the "optimal" polynomial for the model specified in Equation 1. That is, I ran k-fold cross-validation tests with linear to quartic polynomials, using 100 partitions. The sums of the root mean square errors were typically very similar for all polynomials; and which polynomial resulted in the smallest sum of mean squared errors depended on the (random) choice of the training and test samples. I therefore report results with different polynomials to establish robustness.

errors are used. But here the z-statistic is large, too. Overall, these parametric results confirm the graphical evidence. The state government treats CSU municipalities less leniently than other municipalities when granting special needs transfers.

5.2.2 Nonparametric RDD

To complement the parametric analysis, I report in Table 3 results from a nonparametric RDD. The idea here is to limit the bandwidth to close neighborhoods of the threshold and estimate local linear regressions that relate the alignment status to pre-treatment fiscal characteristics.

I report results for arbitrarily chosen bandwidths of 5 percentage points, 10 percentage points, and 20 percentage points around the normalized threshold and for the optimal bandwidth according to Imbens and Kalyanaraman (2011). The optimal bandwidth for each outcome variable is reported in square brackets in the last row of the table. The results confirm the graphical evidence and the parametric regressions. CSU municipalities have larger stocks of debt, they have higher revenues from user fees and contributions, and they have higher local tax rates. The coefficients are of a similar magnitude as those for the parametric estimates. They are also significant at least for some bandwidths for all outcome measures.

6 Robustness

6.1 Special needs transfers over 100,000 Euro

I excluded special needs transfers of a volume below 10,000 Euros based on the argument that the effect of political alignment for minor and for substantial transfers is different. If true, alignment should continue to have a strong effect on transfer receipts if the sample is restricted to municipality-year pairs with even higher special needs transfers. I therefore

report in Table 4 regressions with a sample where only observations with special needs transfer receipts of more than 100,000 Euros are included.

Among the group of observations that receive special needs transfers of over 100,000 Euro, those municipality-year pairs with a CSU mayor have about a 50% higher stock of debt. However, the coefficient is never significant. I also find that aligned municipalities have about 50% higher revenues from user fees, 60% to 80% higher revenues from contributions, and about 8% higher tax multipliers. For these outcome variables, the coefficient is significant in at least some models. Overall, these results resemble the baseline findings and indicate that political considerations are important not only for average-sized but for very large special needs transfers as well. The only notable difference is that significance levels are smaller, but this is presumably due to the smaller number of observations. On the other hand, the size of the estimated coefficients is somewhat larger.

6.2 SPD mayors as treatment

While focusing on CSU mayors is natural in Bavaria given that these mayors were aligned with the state government during the sample period, an interesting question is how the CSU state government specifically treats municipalities ruled by the prime political competitor, the SPD. Table 5 presents results from a variant of Equation 1 where the running variable is the vote share of the SPD and the treatment dummy is one if the mayor is supported by the SPD. The number of observations is smaller than in the baseline models because there are more municipality-year pairs with no SPD candidate than pairs with no CSU candidate.

I find that the results correspond to the baseline estimates. SPD municipalities, when they receive special needs transfers, tend to have a lower stock of debt, lower revenues from contributions, and lower property tax and business tax multipliers. The results only differ in some details. In particular, the size of the estimate is smaller for debt per capita, user fees,

and the property tax A. Overall, these results indicate once more that the state government treats CSU mayors more harshly than mayors from the SPD.

Corresponding regressions for non-SPD mayors are not feasible because these mayors originate from various smaller parties or municipality-specific vote initiatives. Thus, there is no consistent running variables.

6.3 Placebo regressions

As a further robustness test, I run placebo regressions. The idea is to let the alignment treatment set in at values of the normalized CSU vote share variable that differ from the true 50% threshold. In such regressions, the estimate for the alignment effect should be insignificant or at least less significant than in the baseline regressions. If, on the other hand, the placebo regressions result in significant coefficients, this would throw the baseline estimates into question.

I run the following placebo regressions. First, I redefine the thresholds in steps of 0.01 in the ranges of -0.2 to -0.05 and 0.05 to 0.2. Then I replicate the baseline regressions for each of the 30 fake thresholds. Since I estimated six models in Table 2, I estimate the corresponding six models with the fake thresholds. Altogether, this procedure results in 180 placebo coefficient estimates for each outcome variable. Note that I use the full sample in the placebo regressions rather than only observations to the right or left of the true threshold given the small sample size. The disadvantage of using the full sample is that the placebo estimates might still pick up some of the true treatment effects. However, given that the placebo treatments set in at least 5 percent points away from the true treatments, the effect of the true treatments on the placebo coefficients should be relatively muted.

Following DellaVigna and La Ferrara (2010), I plot the cumulative distribution of the z-statistics for these placebo estimates in the graphs collected in Figure 8. To facilitate comparison of the z-statistics, I indicate the 10% significance level (1.65) with vertical lines.

As mentioned above, the estimated coefficients should be largely insignificant given the use of fake thresholds. This is mostly the case. I find that only about 10 percent of the placebo coefficients for debt, user fees, and contributions are significantly positive. While this share of significantly positive coefficients is twice as large as expected if the placebo effect were zero, the fact that I use the whole sample implies that these placebo estimates capture some of the true treatment effect. In any case, the share of significantly positive coefficients is small. I find equally conclusive evidence for the property tax multipliers. Almost none of the placebo coefficients is significantly positive. There are more significant estimates for the business tax multiplier, about 20 percent. While this share is relatively large, most coefficient estimates are still insignificant. Overall, I do not find strong evidence indicating that the baseline results are statistical artifacts.

7 Conclusion

This paper studies whether higher level governments are more or less lenient toward politically aligned municipalities when they provide special needs transfers. The results suggest that aligned municipalities are treated harsher than unaligned ones. Before aligned municipalities receive special needs transfers, they have to face worse fiscal problems as reflected by higher stocks of debt, they have to raise more revenues and contributions from their population, and they have to impose higher tax rates. These results are both robust and consistent across different outcome variables.

That the higher level government treats aligned municipalities less leniently is a puzzling result given the findings in the previous literature on the political economy of intergovernmental transfers. Typically, higher level governments are found to favor aligned municipalities in their transfer policies. The results in this paper consequently indicate that the political considerations surrounding special needs transfers differ from those that matter for invest-

ment and other discretionary transfers. In Bavaria at least, the state government does not seem to believe that providing more special need transfers to aligned municipalities carries political benefits.

There are two plausible explanations for why the state government is reluctant to provide special needs transfers to aligned municipalities. The first is that special needs transfers are in the public's eye perceived as "welfare for municipalities": they carry a stigma. The Bavarian state government, and by extension the ruling CSU, tends to portray its leadership as instrumental for the widely recognized fiscal and economic success of Bavaria in the last three decades. This positive image of the party as the facilitator of economic progress may be difficult to maintain if too many aligned municipalities are found to be recipients of special needs transfers. In short, the state government may have been afraid that the stigma associated with special needs transfers might spill over to the party as a whole, leading in turn to losses in state-level elections. By the same token, the state government may have exploited the opportunity to portray the opposition parties, and in particular the SPD, as fiscally irresponsible and dependent on the state government's help. On a state wide-scale, the ability to frame SPD mayors, and by extension the SPD as a whole, as fiscally irresponsible and economically dependent may have carried larger electoral benefits than helping aligned municipalities.

The second plausible, not necessarily contradictory, explanation for the results is that the state government wants to avoid the impression that it favors aligned mayors. Such an impression of favoritism might result in an electoral backlash in state level elections given that many municipalities are ruled by non-CSU mayors, even if voters tend to vote for the CSU in the state-level elections. In the attempt to ensure that an impression of favoritism is avoided, the state government may end up effectively discriminating against aligned municipalities.

While it is difficult to establish why the state government discriminates against aligned municipalities, the results conclusively suggest that it does. This finding has implications for

the literature on the political economy of intergovernmental transfers. First, transfer policies appear to be more complex than is commonly believed. In particular, it seems that providing more transfers to aligned municipalities does not always curry political rewards. Given that many countries have transfers programs that resemble the Bavarian special needs transfers, future theoretical work on the political economy of intergovernmental transfer schemes should allow for the possibility that some types of transfers can hurt higher level governments politically if they are provided to aligned municipalities. An avenue for future empirical work would be to specifically explore what considerations guide higher level government's decisions regarding the provision of special needs transfers.

Acknowledgments

Financial support from the German Research Foundation (DFG) within the project "The political economy of local fiscal equalization in the German States" (DFG BA 4967/1-1) is gratefully acknowledged.

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Table 1: Number of observations within vote share brackets

Bracket	Observations	CSU majority
49-51	38	15
47-52	106	57
45-55	177	99
40-60	310	160
35-65	424	224
25-75	612	338
0-100	796	462

This table collects the number of observations within vote share brackets and notes how many of the municipality-year pairs that received special needs transfers above 10,000 Euro have a CSU mayor.

Table 2: Special needs transfers and fiscal characteristics of CSU municipalities, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=312	0.046	0.123	0.181	0.404**	0.292	0.292
N=779	(0.089)	(0.123)	(0.153)	(0.188)	(0.178)	(0.236)
User fees						
I=313	0.158*	0.048	0.185	0.328**	0.322**	0.322
N=779	(0.081)	(0.105)	(0.126)	(0.144)	(0.147)	(0.197)
Contributions						
I=306	0.297**	0.301	0.472**	0.513**	0.564***	0.564**
N=744	(0.136)	(0.198)	(0.232)	(0.255)	(0.213)	(0.271)
Property tax A						
I=313	-0.014	0.025	0.068***	0.075***	0.061**	0.061*
N=780	(0.016)	(0.019)	(0.023)	(0.028)	(0.028)	(0.036)
Property tax B						
I=313	-0.002	0.033*	0.063***	0.071***	0.055**	0.055
N=780	(0.016)	(0.019)	(0.023)	(0.027)	(0.027)	(0.037)
Business tax						
I=313	0.016	0.033**	0.050***	0.051***	0.047**	0.047*
N=780	(0.010)	(0.013)	(0.015)	(0.019)	(0.018)	(0.026)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The dependent variables are the averages in the three years before the special needs transfers are provided of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the CSU supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. e) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). f) All observations with special needs grants of more than 10,000 Euro are inlcuded in the sample. I denotes the number of municipalities and N the number of observations.

Table 3: Special needs transfers and fiscal characteristics of CSU municipalities, Nonparametric RDD

	Debt	User fees	Contributions	Property tax A	Property tax B	Business tax
BW=0.05	0.337	0.115	0.306	0.096***	0.064**	0.022
	(0.216)	(0.143)	(0.244)	(0.032)	(0.030)	(0.022)
BW=0.1	0.284*	0.191	0.412*	0.052**	0.047**	0.041**
	(0.159)	(0.117)	(0.221)	(0.024)	(0.024)	(0.017)
BW=0.2	0.149	0.171*	0.421**	0.043**	0.043**	0.039***
	(0.119)	(0.104)	(0.197)	(0.019)	(0.019)	(0.013)
BW=I&K	0.138	0.168	0.356**	0.049**	0.047**	0.034***
	(0.117)	(0.112)	(0.162)	(0.021)	(0.021)	(0.012)
	[0.211]	[0.126]	[0.329]	[0.138]	[0.140]	[0.260]

Notes: a) The dependent variables are the averages in the three years before the special needs transfers are provided of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the CSU supported candidate for the mayor's office in the last election. c) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). d) I denotes the number of municipalities and N the number of observations. e) Estimates in the last three rows are for models where the optimal bandwidth is chosen according to Imbens and Kalyanaraman (2011) (I&K). These bandwidths are reported in brackets. f) All observations with special need grants of more than 10,000 Euro are included in the sample.

Table 4: Special needs transfers of more than 100,000 Euro and fiscal characteristics of CSU municipalities, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
N=365	0.012	0.048	0.091	0.458	0.530	0.530
I=165	(0.129)	(0.182)	(0.254)	(0.366)	(0.338)	(0.395)
User fees						
N=165	0.382***	0.401**	0.541***	0.545**	0.539**	0.539
I=365	(0.124)	(0.163)	(0.202)	(0.249)	(0.251)	(0.334)
Contributions						
I=156	0.580***	0.692**	0.895**	0.819	0.627	0.627
N=343	(0.223)	(0.348)	(0.452)	(0.538)	(0.404)	(0.509)
Property tax A						
I=165	-0.034	0.017	0.067*	0.083*	0.076*	0.076
N=365	(0.022)	(0.027)	(0.037)	(0.048)	(0.043)	(0.049)
Property tax B						
I=165	-0.002	0.036	0.062	0.086*	0.087*	0.087
N=365	(0.022)	(0.030)	(0.038)	(0.048)	(0.045)	(0.055)
Business tax						
I=165	0.034*	0.047**	0.050*	0.077**	0.080**	0.080*
N=365	(0.017)	(0.023)	(0.027)	(0.035)	(0.035)	(0.045)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The sample is restricted to observations where special needs transfers had a value of more than 100,000 Euro. The dependent variables are the averages in the three years before the special needs grants are provided of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the CSU supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. d) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). e) I denotes the number of municipalities and N the number of observations.

Table 5: Special needs transfers and fiscal characteristics of SPD municipalities, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=238	-0.048	-0.079	0.006	-0.228	-0.203	-0.203
N=644	(0.093)	(0.133)	(0.174)	(0.210)	(0.199)	(0.263)
User fees						
I=238	0.046	-0.099	-0.319*	-0.330*	-0.323*	-0.323
N=642	(0.105)	(0.136)	(0.175)	(0.188)	(0.189)	(0.237)
Contributions						
I=234	-0.310**	-0.441*	-0.694**	-0.701**	-0.758***	-0.758**
N=612	(0.156)	(0.230)	(0.295)	(0.327)	(0.267)	(0.329)
Property tax A						
I=238	-0.020	-0.048**	-0.019	-0.016	-0.015	-0.015
N=644	(0.018)	(0.024)	(0.030)	(0.038)	(0.040)	(0.053)
Property tax B						
I=238	0.002	-0.031	-0.038	-0.070**	-0.071*	-0.071
N=644	(0.017)	(0.024)	(0.029)	(0.035)	(0.037)	(0.050)
Business tax						
I=238	-0.011	-0.031*	-0.065***	-0.087***	-0.089***	-0.089***
N=644	(0.012)	(0.016)	(0.020)	(0.024)	(0.025)	(0.032)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The dependent variables are the averages in the three years before the special needs transfers are provided of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the SPD supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. d) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). e) All observations with special needs tranfers of more than 10,000 Euro are included in the sample. I denotes the number of municipalities and N the number of observations.

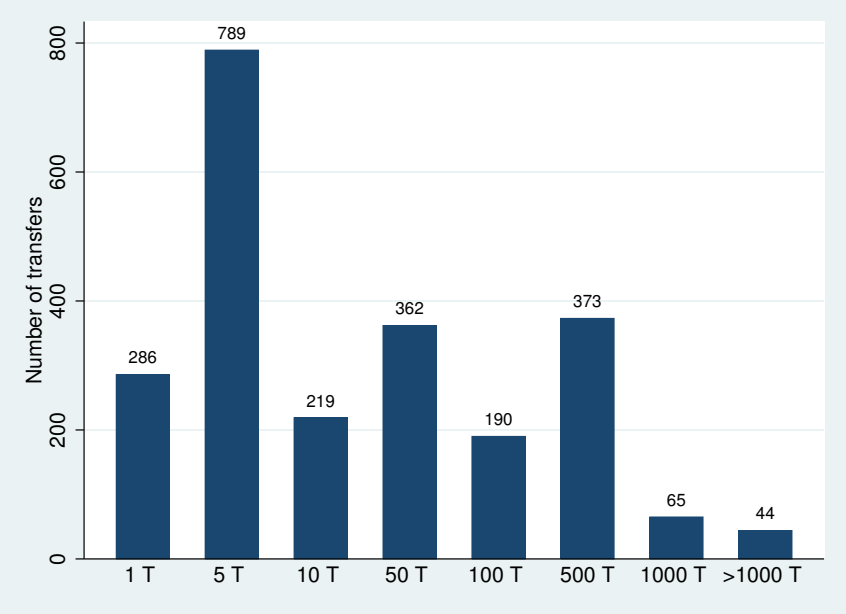
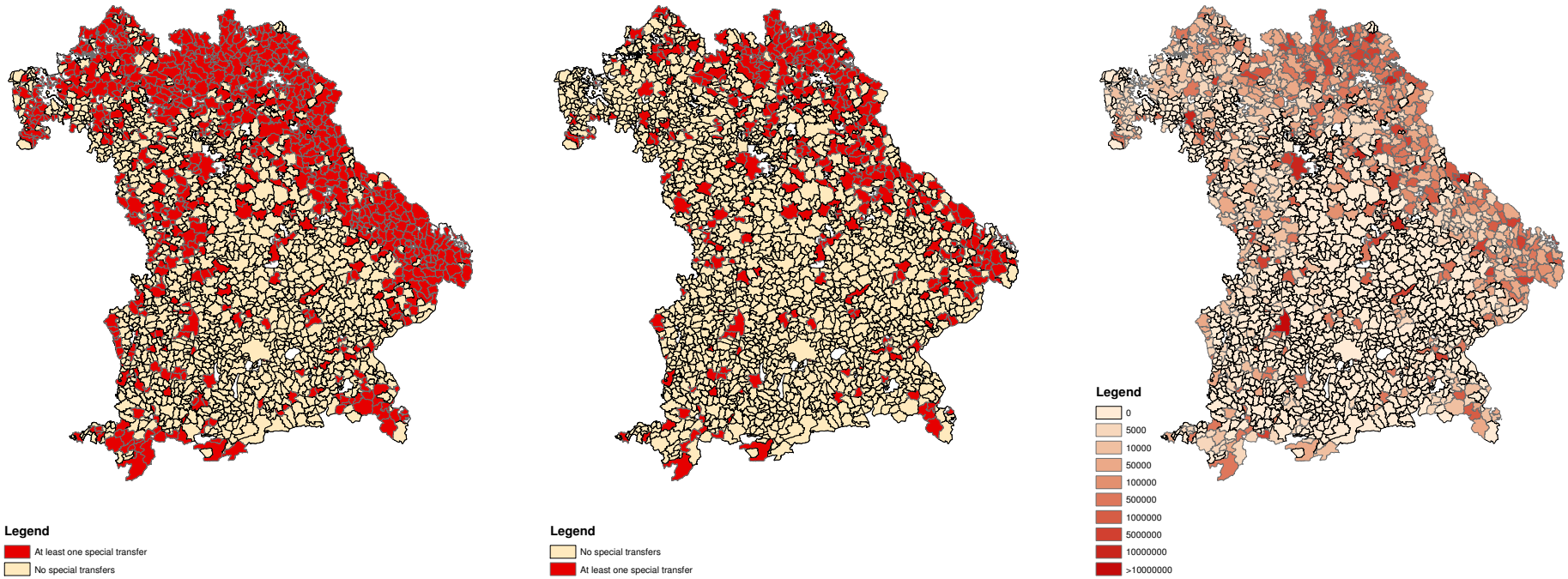
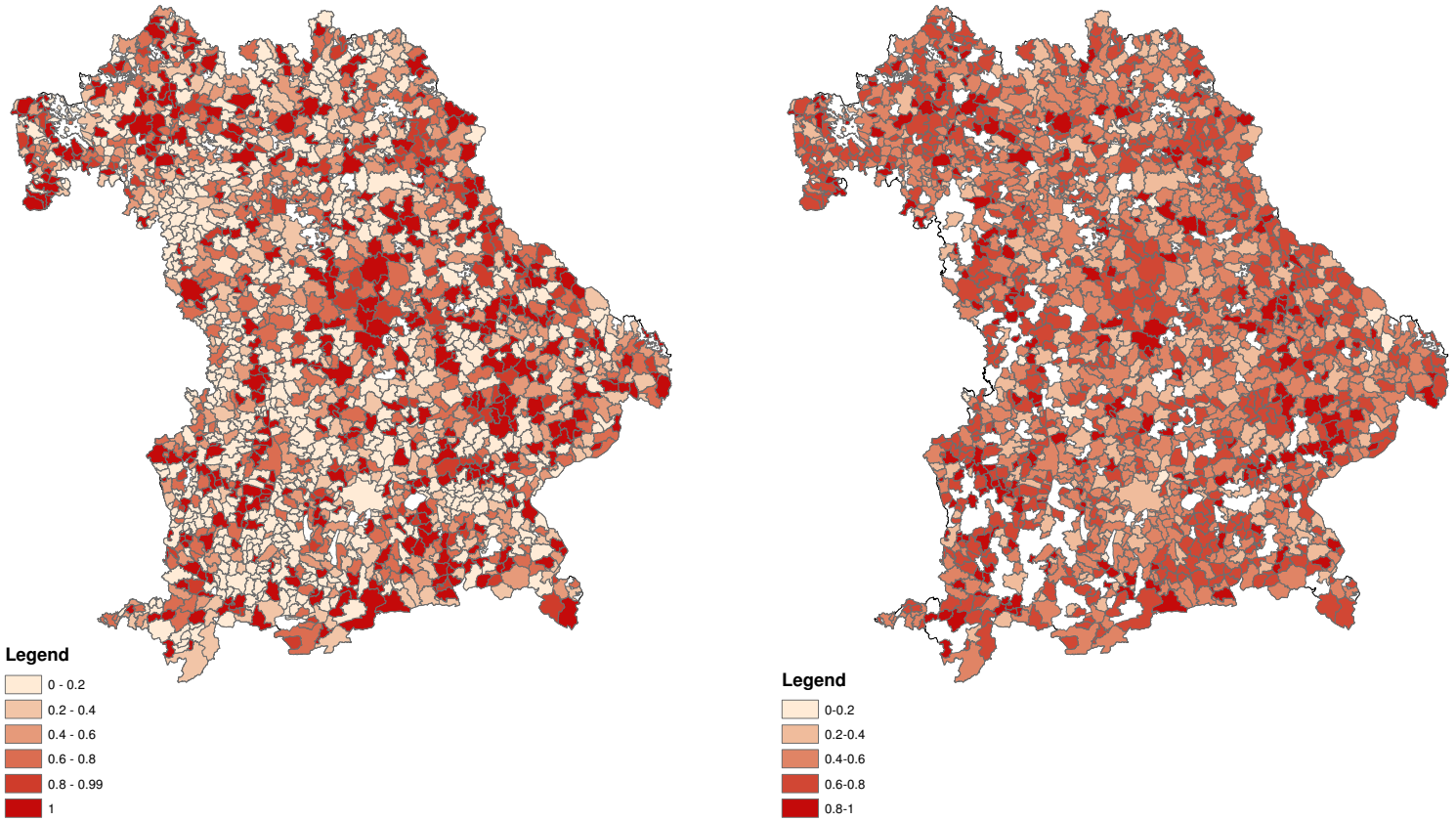


Figure 1: Number of special transfers according to their volume.



(a) Municipalities with transfers **(b)** Municipalities with transfers $\geq$ 10,000 **(c)** Volume of transfers

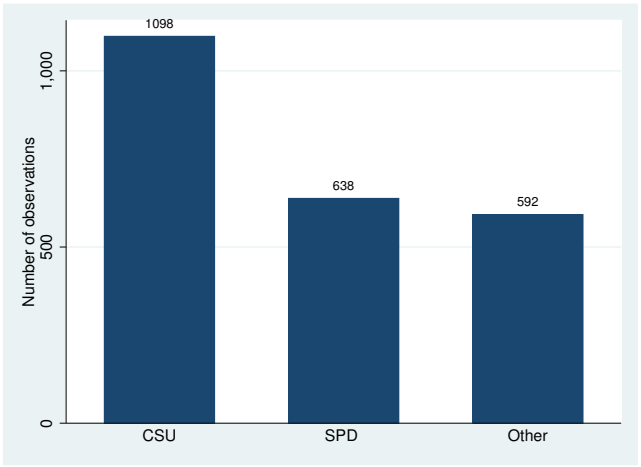
Figure 2: Municipalities that received special transfers during the sample period. Missing observations are colored white.



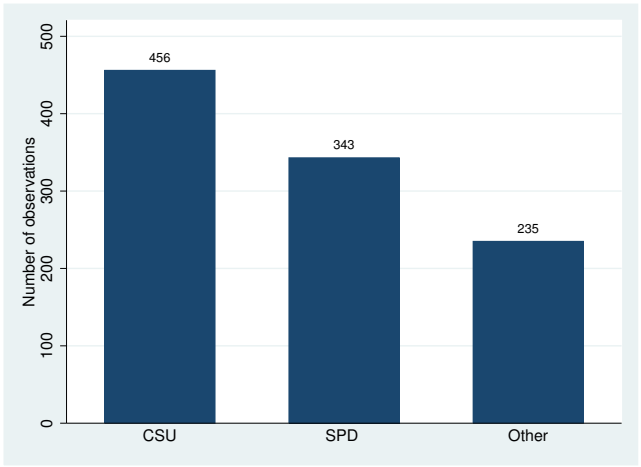
(a) Fraction of years with CSU mayor

(b) Average vote share of CSU candidate

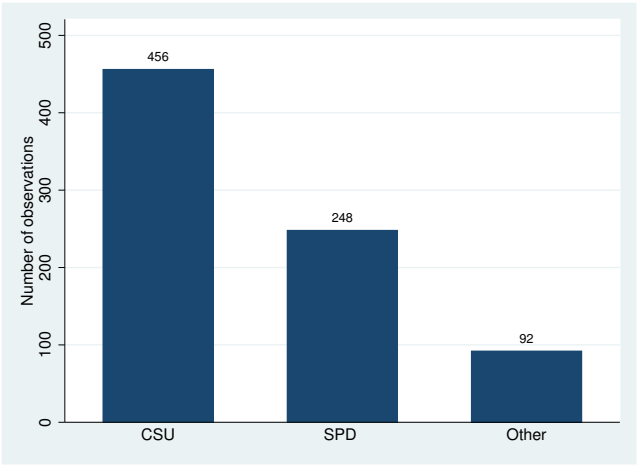
Figure 3: Political alignment of municipalities, 1993-2011. Missing observations are colored white.



(a) All observations



(b) Observations with transfers $\geq$ 10,000



(c) Observations with transfers $\geq$ 10,000 & non-missing CSU vote share

Figure 4: Political affiliation of municipalities (mayors) This figure shows the number of number of mayors with CSU, SPD, and with no affiliation in the observations included in the sample.

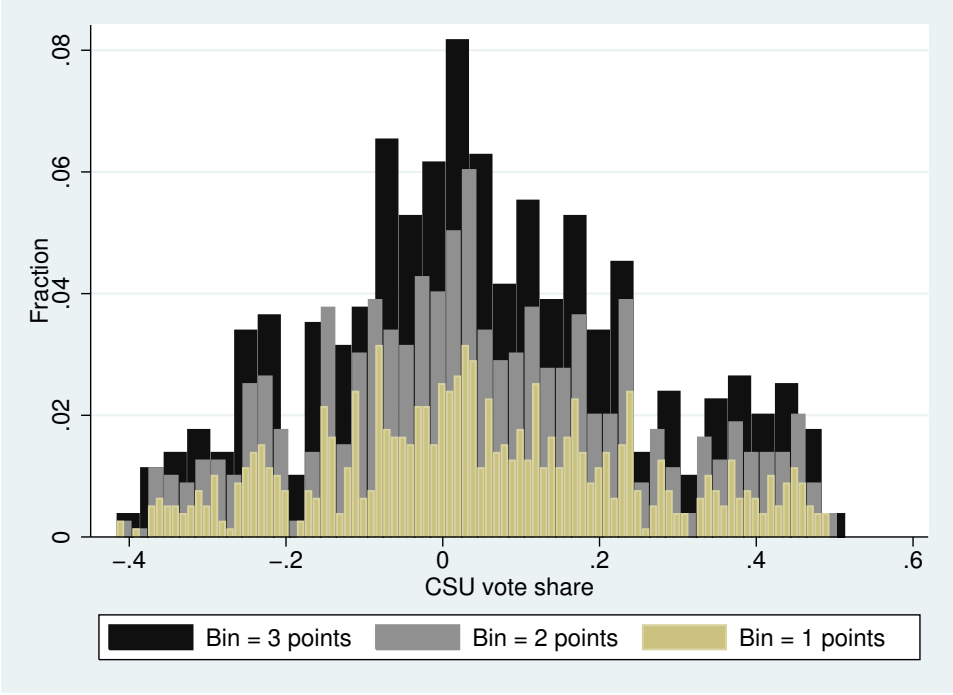


Figure 5: Histogram of normalized CSU vote share.

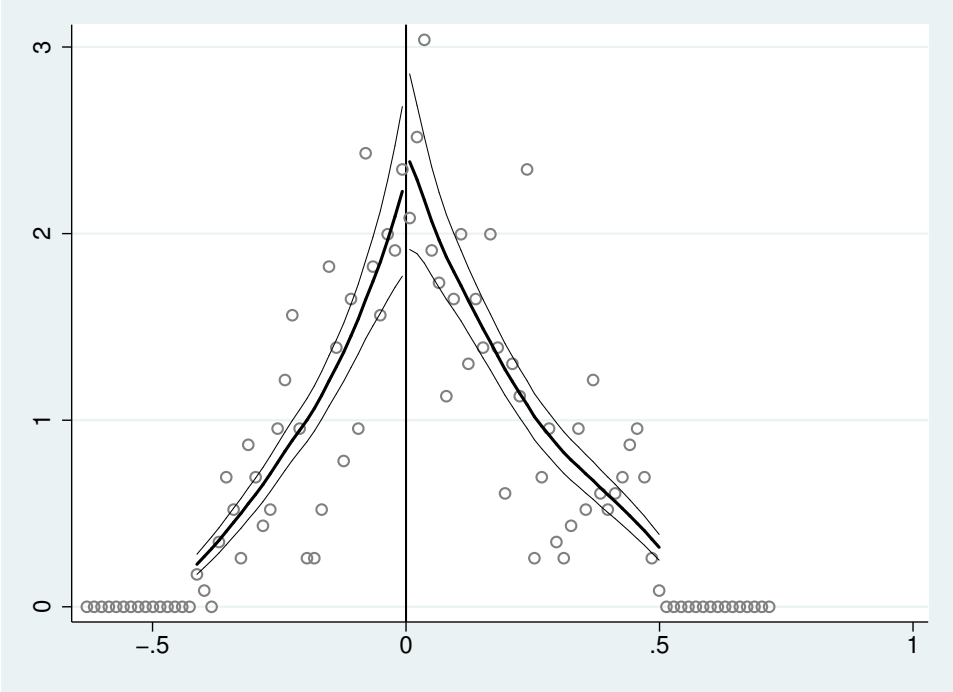
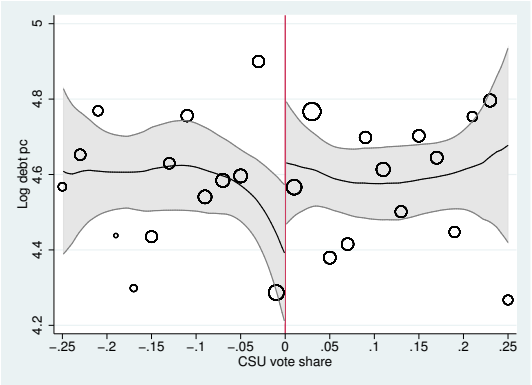
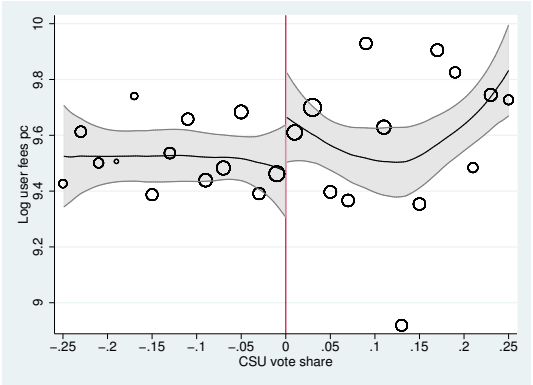


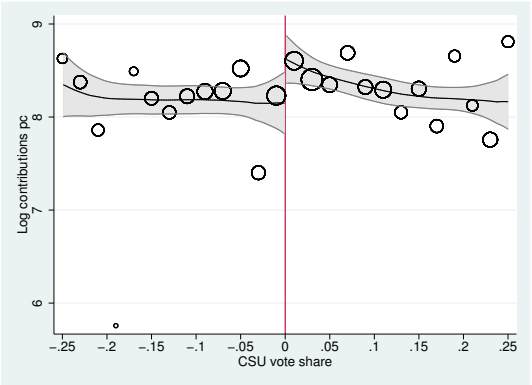
Figure 6: McCrary plot of normalized CSU vote share.



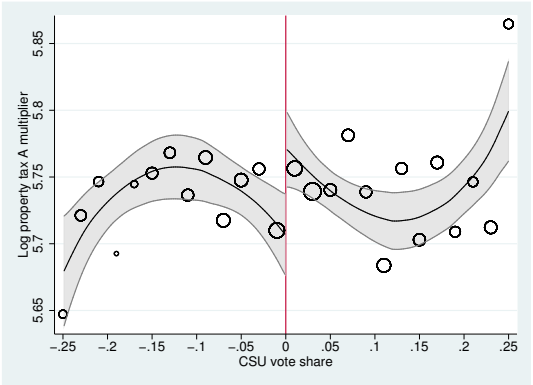
(a) Log debt pc.



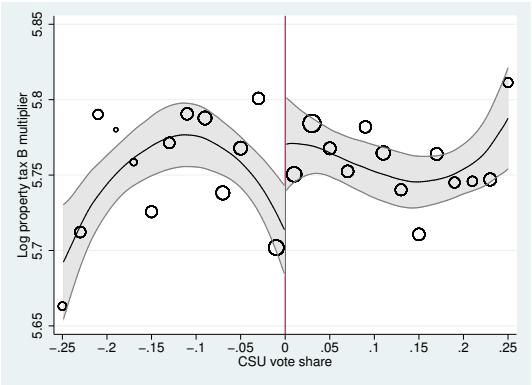
(b) Log user fees pc.



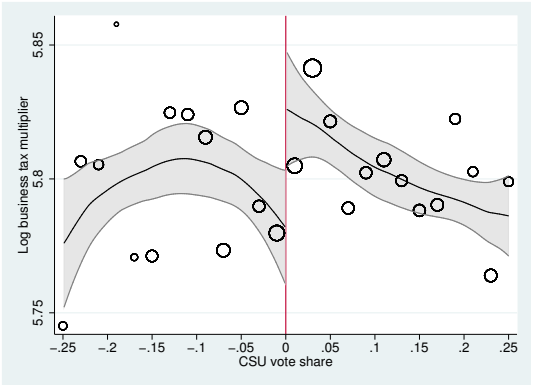
(c) Log contributions pc.



(d) Property tax A multiplier

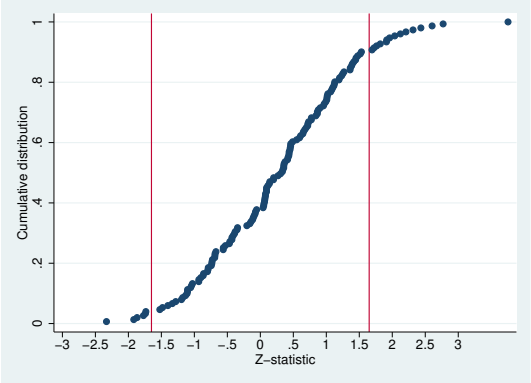


(e) Property tax B multiplier

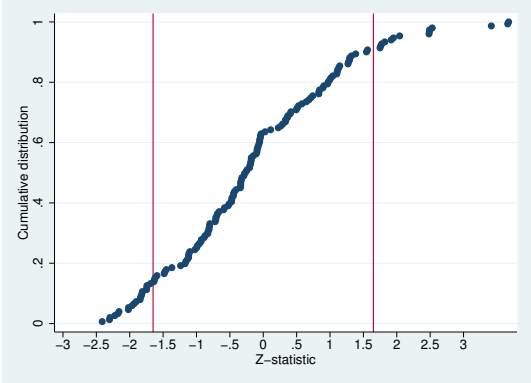


(f) Business tax multiplier

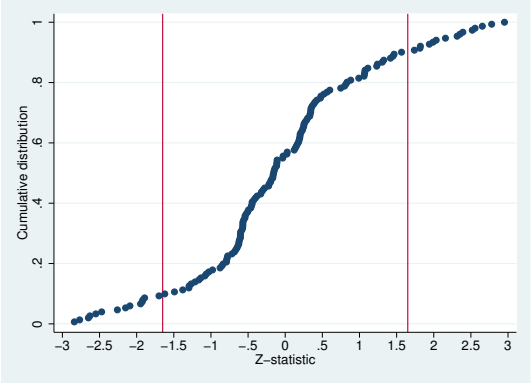
Figure 7: RDD plots for municipal fiscal variables This figure shows RDD plots that relate the average of municipal fiscal variables in the three years before the special need transfers are granted to the normalized vote share of the CSU (the party aligned with the state government) in the last mayoral election. 90% confidence intervals are shaded in gray.



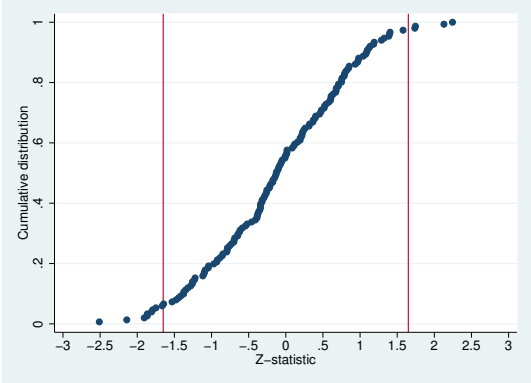
(a) Log debt pc.



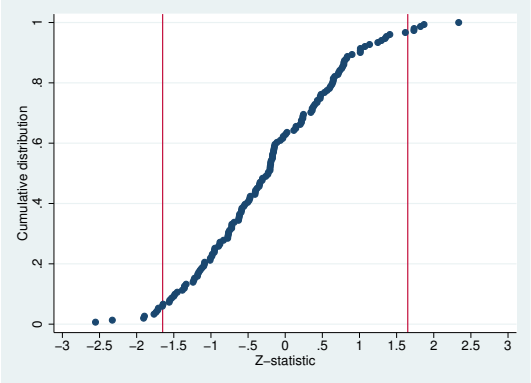
(b) Log user fees pc.



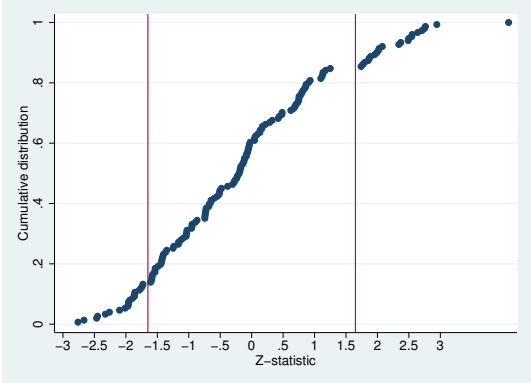
(c) Log contributions pc.



(d) Property tax A multiplier



(e) Property tax B multiplier



(f) Business tax multiplier

Figure 8: Placebo regressions This figure shows z-statistics from placebo regressions with placebo alignment treatments.

Appendix

Table A.1: Definition and Source of Variables

Label	Description	Source
Debt pc.	Log debt per capita	Bavarian State Statistical Office
User fees pc.	Log user fees per capita	Bavarian State Statistical Office
Contributions pc.	Log contributions fees per capita	Bavarian State Statistical Office
Property tax A	Log property tax A multiplier	Bavarian State Statistical Office
Property tax B	Log property tax B multiplier	Bavarian State Statistical Office
Business tax	Log business tax multiplier	Bavarian State Statistical Office
CSU majority	Dummy=1 if municipality has a mayor supported by the CSU	Bavarian State Statistical Office
CSU vote share	The vote share of the candidate supported by the CSU	Bavarian State Statistical Office
Transfers (total)	Special needs transfers	Bavarian State Statistical Office

Table A.2: Summary statistics

Variable	Obs.	Mean	SE	Min.	Max.
Full sample					
Debt pc.	2319	91.785	70.048	0.068	529.934
User fees pc.	2328	14986.500	11081.700	418.907	91602.800
Contributions pc.	2293	8503.075	8163.332	61.731	76458.390
Property tax A	2328	311.297	44.459	200.000	800.000
Property tax B	2328	309.669	41.354	200.000	800.000
Business tax	2328	322.684	23.722	276.667	475.000
CSU majority	2328	0.476	0.500	0.000	1.000
CSU vote share	1815	0.569	0.220	0.040	0.992
Transfers (total)	2328	98795.220	308477.300	5.000	5700000.000
Sample with special needs transfers of more than 10,000 Euro					
Debt pc.	1033	123.683	82.606	1.122	529.934
User fees pc.	1034	16704.010	11415.040	418.907	91602.800
Contributions pc.	1010	7753.818	7678.090	71.176	65228.640
Property tax A	1034	317.147	46.277	200.000	570.000
Property tax B	1034	319.581	42.918	200.000	520.000
Business tax	1034	328.923	27.646	276.667	475.000
CSU majority	1034	0.447	0.497	0.000	1.000
CSU vote share	796	0.546	0.204	0.084	0.992
Transfers (total)	1034	218981.100	433981.800	10000.000	5700000.000

The means for expenditures, tax revenues, debt, and redemptions are for levels instead of logs for interpretability.

Supplementary materials

Table S.1: Special needs transfers and fiscal characteristics of CSU municipalities, Missing CSU vote share set to 0, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=392	0.123	-0.004	0.208	0.323*	0.245	0.245
N=1033	(0.078)	(0.112)	(0.137)	(0.176)	(0.165)	(0.222)
User fees						
I=393	0.116	0.040	0.161	0.224	0.218	0.218
N=1032	(0.074)	(0.099)	(0.121)	(0.140)	(0.141)	(0.194)
Contributions						
I=385	0.246**	0.386**	0.455**	0.529**	0.531**	0.531*
N=979	(0.119)	(0.179)	(0.223)	(0.250)	(0.210)	(0.276)
Property tax A						
I=393	0.016	-0.007	0.073***	0.078***	0.070***	0.070**
N=1034	(0.014)	(0.019)	(0.022)	(0.027)	(0.027)	(0.034)
Property tax B						
I=393	0.019	0.004	0.065***	0.062**	0.052**	0.052
N=1034	(0.014)	(0.019)	(0.022)	(0.026)	(0.026)	(0.036)
Business tax						
I=393	0.019**	0.024*	0.045***	0.049***	0.047***	0.047*
N=1034	(0.009)	(0.013)	(0.015)	(0.018)	(0.018)	(0.026)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The dependent variables are the averages in the three years before the special needs transfers are provided of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the CSU supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. e) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). f) All observations with special needs transfers of more than 10,000 Euro are inlcuded in the sample. I denotes the number of municipalities and N the number of observations. Observations with missing CSU vote share (because no CSU candidate participated in the last election) are set to 0 before the normalization of the CSU vote share.

Table S.2: Special needs transfers and fiscal characteristics of CSU municipalities, Only municipalities with CSU or SPD mayor, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=283	0.019	0.060	0.117	0.333	0.220	0.220
N=703	(0.101)	(0.148)	(0.195)	(0.251)	(0.237)	(0.323)
User fees						
I=284	0.191**	0.026	0.144	0.265*	0.254	0.254
N=703	(0.090)	(0.116)	(0.137)	(0.153)	(0.155)	(0.220)
Contributions						
I=275	0.576***	0.629***	0.855***	0.882***	0.874***	0.874***
N=667	(0.156)	(0.237)	(0.291)	(0.325)	(0.249)	(0.318)
Property tax A						
I=284	-0.011	0.014	0.047	0.057	0.051	0.051
N=704	(0.018)	(0.023)	(0.029)	(0.037)	(0.035)	(0.044)
Property tax B						
I=284	-0.007	0.020	0.047*	0.064*	0.053	0.053
N=704	(0.018)	(0.024)	(0.028)	(0.034)	(0.033)	(0.045)
Business tax						
I=284	0.002	0.025	0.042**	0.049**	0.047**	0.047
N=704	(0.012)	(0.016)	(0.017)	(0.021)	(0.020)	(0.030)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) All observations with special needs transfers of more than 10,000 Euro and with either a CSU or SPD mayor are included in the sample. The dependent variables are the averages in the three years before the special needs transfers are granted of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the CSU supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. d) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). e) I denotes the number of municipalities and N the number of observations.

Table S.3: Special needs transfers and fiscal characteristics of CSU municipalities, Comparing CSU to non-SPD mayors, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=253	0.082	0.262*	0.331*	0.551**	0.406**	0.406*
N=547	(0.131)	(0.148)	(0.172)	(0.215)	(0.205)	(0.247)
User fees						
I=254	0.087	0.006	0.188	0.322	0.256	0.256
N=548	(0.117)	(0.155)	(0.194)	(0.228)	(0.236)	(0.275)
Contributions						
I=249	-0.293	-0.355	-0.117	0.085	0.268	0.268
N=524	(0.179)	(0.244)	(0.273)	(0.303)	(0.283)	(0.329)
Property tax A						
I=254	-0.022	0.050**	0.116***	0.120***	0.087***	0.087**
N=548	(0.021)	(0.022)	(0.023)	(0.029)	(0.030)	(0.037)
Property tax B						
I=254	0.006	0.063***	0.097***	0.103***	0.065**	0.065*
N=548	(0.021)	(0.022)	(0.026)	(0.031)	(0.030)	(0.037)
Business tax						
I=254	0.047***	0.052***	0.058***	0.060***	0.047**	0.047
N=548	(0.011)	(0.015)	(0.019)	(0.023)	(0.023)	(0.030)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The sample is restricted to municipalities with either a CSU or a non-SPD mayor and that received special needs transfers of at least 10,000 Euro. The dependent variables are the averages in the three years before the special needs transfers are granted of the following variables: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the CSU supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. d) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). e) I denotes the number of municipalities and N the number of observations.

Table S.4: Special needs transfers and fiscal characteristics of CSU municipalities, Fiscal variables one year before special needs transfers are granted, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=312	0.027	0.111	0.174	0.422**	0.312*	0.312
N=719	(0.088)	(0.124)	(0.156)	(0.191)	(0.181)	(0.236)
User fees						
I=313	0.122	-0.030	0.108	0.238	0.243	0.243
N=780	(0.087)	(0.113)	(0.137)	(0.155)	(0.155)	(0.210)
Contributions						
I=309	0.254	0.293	0.342	0.322	0.385	0.385
N=761	(0.174)	(0.257)	(0.316)	(0.362)	(0.312)	(0.301)
Property tax A						
I=313	-0.012	0.026	0.069***	0.077***	0.062**	0.062*
N=780	(0.016)	(0.019)	(0.024)	(0.029)	(0.029)	(0.036)
Property tax B						
I=313	-0.002	0.032	0.064***	0.070**	0.052*	0.052
N= 780	(0.016)	(0.020)	(0.023)	(0.028)	(0.028)	(0.037)
Business tax						
I=313	0.018*	0.034**	0.050***	0.053***	0.049***	0.049*
N=780	(0.010)	(0.013)	(0.015)	(0.019)	(0.018)	(0.026)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The dependent variables is the value in the year before the special needs transfers are granted of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the SPD supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. d) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). e) All observations with special needs transfers of more than 10,000 Euro are included in the sample. I denotes the number of municipalities and N the number of observations.

Table S.5: pecial needs transfers and fiscal characteristics of CSU municipalities, Five-year pre-transfer averages, Parametric RDD

	(I)	(II)	(III)	(IV)	(V)	(VI)
Debt						
I=311	0.037	0.117	0.187	0.403**	0.286*	0.286
N=778	(0.087)	(0.119)	(0.148)	(0.181)	(0.168)	(0.227)
User fees						
I=313	0.184**	0.083	0.212*	0.375***	0.361**	0.361*
N=779	(0.079)	(0.102)	(0.122)	(0.140)	(0.143)	(0.192)
Contributions						
I=305	0.199*	0.236	0.417**	0.432**	0.441**	0.441*
N=734	(0.114)	(0.165)	(0.192)	(0.215)	(0.186)	(0.245)
Property tax A						
I=313	-0.014	0.023	0.064***	0.076***	0.063**	0.063*
N=780	(0.016)	(0.019)	(0.023)	(0.028)	(0.028)	(0.036)
Property tax B						
I=313	-0.001	0.031	0.060***	0.071***	0.056**	0.056
N=780	(0.015)	(0.019)	(0.022)	(0.026)	(0.027)	(0.036)
Business tax						
I=313	0.014	0.030**	0.047***	0.051***	0.047**	0.047*
N=780	(0.010)	(0.013)	(0.015)	(0.019)	(0.018)	(0.026)
Polynomial	Linear	Quadratic	Cubic	Quartic	Quartic	Quartic
Year FE	No	No	No	No	Yes	Yes
Clustered SE	No	No	No	No	No	Yes

Notes: a) The dependent variables are the averages in the five years before the special needs transfers are granted of: (i) log debt per capita, (ii) log user fees per capita, (iii) log contributions per capita, (iv) log property tax A multiplier, (v) log property tax B multiplier, and (vi) log business tax multiplier. b) The forcing variable is the the (normalized) vote share of the SPD supported candidate for the mayor's office in the last election. c) Standard errors are robust to heteroscedasticity in all models. d) Stars indicate significance levels at 10%(*), 5%(**) and 1%(***). e) All observations with special needs transfers of more than 10,000 Euro are included in the sample. I denotes the number of municipalities and N the number of observations.