Do Parties Matter in Very Small Local Governments?

Björn Tyrefors Hinnerich

(Working paper. Latest version December 2008)

It is often argued that political parties do not matter for shaping economic policies at the local level, and in particular if the units are numerous. By making use of a new data set and a regression-discontinuity approach, this study shows that parties do in fact matter on the local level. Moreover, the effect is of larger magnitude than in previous studies. Given the relatively large number of local government in the sample, this finding is surprising if Tiebout-sorting forces where at work.

"We don't need republican roads or democratic roads, we need roads"

(Arnold Schwarzenegger. The Inaugural Ceremony, January 2007)

1. Introduction

Although, California is more than a 3 times larger population than Sweden, the statement by Arnold Schwarzenegger summarizes why pundits have thought that local politics have little to do with ideology. The electorate and the representatives have been assumed to be approximately homogeneous in the policy dimension that is relevant for the local government. Thus, local politics have been viewed per se as being more pragmatic and consensual than national politics and the impact of parties on policy has been thought of as negligible.¹

Even if we dismiss that local governmental issues have no ideological ingredient, there is still a strong motivation for non-partisan effects, originated by the seminal paper by Tiebout (1956). The basic idea is that over time individuals will sort themselves by migrating into local governments that appeal to them. Given sufficient many local governments in relation to individual types, the local governments will be an efficient provider of the public goods and services that the residents want. Thus, we can view local governments as shops, competing for the consumer-voter. Clearly, in a stylized Tiebout-world there should be no scope for different party effects, since people will sort themselves according to their types.²

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¹Acknowledgement: The author thanks Magnus Johannesson, Per Pettersson-Lidbom for helpful comments and discussions. Financial support from Finanspolitiska Forskningsinstitutet is gratefully acknowledged. Remaining errors are solely mine.

²Tiebout (1956) has been influential both economics and political science. However, it has also been heavily criticized theoretically for a very special case in this types of model. See Bewley (1981) for an excellent analysis. There is also debate whether the Tiebout model even needs politics for an efficient outcome. See Epple and Zelenitz (1981) and Henderson (1985) However, that party effects should be decreasing in the number of jurisdictions is a moderate conclusion from all theories.
Lastly, it has been claimed, the smaller population a local government have, the better is the aggregation and information of the electorate’s preferences; consequently, if we live in an approximate median voter world, then parties should play little role, disregarding the degree of homogeneity.\(^3\)

Recent empirical evidence on partisan effects on policy outcomes is mixed.\(^4\) Pettersson-Lidbom (2007a) investigates party effects in Swedish local governments for the period 1974-1994. He finds significant partisan effects for a wide range of economic outcomes. The strength of the study is that it makes use of regression discontinuity approach that credible handles problems of endogeneity.\(^5\) The identifying mechanism is that party control changes discontinuously at 50 % of the vote share, where the causal effect can be measured by comparing outcomes for local governments just below 50 % to those just above. Since the treatments status, winning or losing the election, will be as good as randomly assigned in a neighborhood of the threshold, the local government just below provides the counterfactual of those just above. With a similar method, Ferreira and Gyourko (2007) use data on 400 U.S. cities for the period of 1950-2000. However, they find in general statistically significant party effects with respect to fiscal policy. In Swedish study the average population size of a locality is 30 000, whereas in the U.S. study the average population size is 125 000. Since the political unit contains about 4 times as many citizens in the U.S. sample, the results seems conflicting. On the other hand, the standard errors in Ferreira and Gyourko (2007) are very large and the size of the of all comparable party effects are within one standard error of the estimate in the Swedish study. Thus, using standard inference logic, the effects in U.S. study could be of the same size as well as larger or smaller. Moreover, comparing the two studies might be problematic because of other variations across countries.

This study uses a regression discontinuity approach to test for partisan effects in Swedish local governments for the period 1959-1966. The justification of the unit of analysis and time period is twofold. First, the number of previous studies are very few and since the evidence is mixed, there is need for more empirical work. Second, analyzing Swedish local governments in the period of 1959-1966 can shed light on the theoretical prediction that party effects should be decreasing in the number of jurisdictions. Moreover, since Sweden is a unitary state, the local government are very homogenous with respect to institutions. The national government set the institutional rule of the games. At the same time local governments are the major service provider and accounts for a large share of the Swedish economy. Within the rules they have a

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\(^3\) See Lockwood (2005) for a critical discussion. Specifically, a common view is that the extensive boundary reform in Sweden 1969, that decreased the number of local governments from 848 to 277, and increased the average population, resulted in larger differences between the policies of the parties. Moreover, it is also conceived that local politics more reflected the ideological differences on the national level. See, for example, Strömberg and Westerståhl (1983) and Wallin et al. (1973).

\(^4\) There is a large literature on relating partisan cycles and macroeconomic outcomes that finds strong evidence for partisan effects. Recently, Faust and Irons (1999) finds little evidence for partisan effects when trying to deal properly with the endogeneity problems.

\(^5\) Lee dicusses and develops the regression discontinuity design and applies in a series of papers to U.S politics. See, for example, Lee (2003) and Lee et al. (2004).
large degree of autonomy. Thus, Swedish local governments are more comparable in the institutional dimension than for example countries or states.

In 1969, the Swedish government imposed a boundary reform that forced the 848 existing local governments to merge into 278 new local governments, before the end of 1973, yielding a variation in the number of jurisdictions. The common view, presented by Swedish political scientists and historians corresponds to the prediction that before the reform party politics played no role. By using pre-reform data, this paper serves as a comparison, to previous studies using of the post-reform data, where the number of local governments were less than 3 times as many. Lastly, the pre-reform period has methodological advantages. First, there are fewer existing parties which makes a bipartisan approximation more reasonable. Second, since the regression discontinuity approach is subject to a large degree of sampling variability it requires large samples. Since the number of local governments are three times as many for every election period, we do not need to use as many election periods in order to have sufficient many observations as we would need in the post-reform period.

Interestingly, I find a larger partisan effect than in the post-reform period. In fact, I find that a left-wing local government increases income tax rate by around 4% more than a right-wing government, which is almost four times the size of the effects in the later period. I can clearly reject that the effect is smaller in the pre-reform period than in the post reform period. Thus, this study rejects the hypotheses that parties do no matter in small local governments. Moreover, the results cast doubts on the common view that increasing the number of local governments should decrease partisan effects, which calls for more systematic studies on the relation between the number of local governments and party politics.

The paper is organized as follows. In section 2 the regression discontinuity approach is discussed. Section 3 discusses some features of Swedish local governments and the data. In section 4 the results are presented and section 5 concludes the paper.

2. Empirical Framework

This section shortly describe the regression-discontinuity method and its implementation.\textsuperscript{7}

The idea of the "sharp" regression discontinuity design is straightforward. Assume there is a continues variable $x$, correlated both with the outcome and some treatment, $T$. However, the relationship between the treatment and the $x$ is very specific and defined by a threshold $x_0$, as $T = 1$ if $x \geq x_0$ and 0 otherwise. In this paper, the treatment $T$ is that party $i$ wins the election and $x$ is the share of votes. We can write this as

\begin{equation}
T_i = T(x_i) = 1 \left[ x_i \geq x_0 \right],
\end{equation}

where $1 \left[ \right]$ is an indicator function that separates the groups into those that win the election, ($T = 1$), and those who loose the election, $T = 0$. Clearly, in a bipartisan

\textsuperscript{6} See below, for more information about the Swedish electoral system.

\textsuperscript{7} I follow Pettersson-Lidbom (2007a).
system, the share of votes can be interpreted as $x$ and $x_0$ is at 50%, i.e. a party wins if it gets more than 50% of the votes. If we restrict the attention to the parties that is just above the threshold and just below, the underlying variable $x$ will be the same in small neighborhood, but that $T$ switches discontinuously. Thus, the observations slightly below the threshold provide the counterfactual outcome for those just above, since $T$ will be randomized in a neighborhood of $x_0$.

The most simple way to implement the regression discontinuity design is simply to compare means around the threshold. However, due to a large degree of sampling variability, we need large samples. A more efficient and equivalent way is to use all the data for any $x$ and a control function in combination with the indicator. The control function should be low order polynomials of the $x$ and should yield unbiased estimate of the treatment effect unless the control function is misspecified, since $x$ is the only systematic determinant of $T$.

Moreover, we must assume that the control function is a smooth function of $x$, otherwise we could never disentangle the effects from the treatment.

In this study, I choose to evaluate the proportional income tax rate, $\text{Taxrate}$. Using the the tax rate as the policy to be evaluated has many advantages. Firstly, the tax rate is totally discretionary to the local governments. The right to tax income was granted to the local governments already in 1862 and is the main source of income to the local governments. Moreover, it is highly visible to the voters. Thus, in this paper I will estimate

$$\text{Taxrate}_{it} = \alpha + \pi T_{it} + f(\text{vote share})\varphi + v_{it},$$

for the local government $i$ at time $t$. $T_{it}$ is the treatment indicator taking the value 1 for left wing governments and 0 for right wing governments and $f(\text{vote share})$ is the control function, some low-order polynomials of vote share. There exist undefined majorities, due to small local parties with no left-right-wing party label. Hence, I normalize vote share as to be zero at the threshold of 50%, where right-wing majorities have negative number $-(\text{right-wing vote share} - 0.5)$, and left-wing majorities have positive number, $(\text{left-wing vote share} - 0.5)$. Lastly, the only parameter that can be given a casual interpretation is $\pi$, since $f(.)$ can be arbitrarily correlated with the error.

### 3. Swedish Local Governments and Data

In this section I briefly discuss some features of Swedish local governments and the relation to the period before the boundary reform.

Swedish local governments have a constitutional right of self governance since 1862. They can decide on income taxation, planning of local land, impose some local fees and freely take up short term debt. Moreover, the local economy are a substantial part

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8 A correct specified control function will pick up any correlation between the error and $T$.

9 Since the assumption of continuity is crucial, this is one of the reasons why the proponents of regression discontinuity design put weight on graphical evidence. See, for example, Lee et al. (2004).

10 For a more thorough description of Swedish municipalities and the amalgamation reform see, for example, Gustafsson, (1984). For econometrical applications and empirical tests on local autonomy in practice see, for example, Pettersson-Lidbom (2007b) and Tyrefors (2007).

11 There were some restrictions on the use of long term debt until 1979.
of the Swedish economy. In 1965, the local share of GDP, measured as consumption and investments, was approximately 15%, a share that has been increasing somewhat up to today’s date.\footnote{This measure also includes the city councils (landsting)} Second, all Swedish local governments are governed by the same laws and institutions, which makes them favorable as units of analysis. Since I study the period before the extensive boundary reform of 1969, it is worth mentioning some characteristics of the reform.

The size of Swedish local governments have long been debated. A committee of experts concluded in 1962 that most local governments were too small to provide efficient services and suggested boundary reforms as a solution.\footnote{Moreover, the reform should be guided by the principle that the new municipalities were to be constructed around economic/geographical centers, i.e., places with dense population. The new municipalities should have at least 8000 inhabitants in the long-run and they should also be more dispersed with respect to occupational character. The logic was that the agricultural sector’s part of the economy was decreasing in favor of the manufacturing sector and particularly the services sector. The committee considered both the tax base and the tax rate and argued that a harmonization between municipalities was desirable. However, initial geographic factors could not be stretched too far. A municipality from southern part of Sweden could not in practice amalgamate with a municipality from the northern part, i.e., a municipality should not be geographically divided. This meant that a large municipality that was located in between small municipalities might be subject to the amalgamation reform because of it’s placement; consequently approximately 96% of the municipalities were subject to the reform. See SOU (1961) and KU (1962).} The proposal prescribed voluntary mergers, since it was assumed that the local governments would realize the gains of becoming larger. The parliament accepted the committee report in 1962 in general but added that splitting old local governments should be avoided. In the following years, the Swedish government constructed the new units, the so called municipality blocks. However, the blocks had no legal meaning. They were theoretical constructs, but with the creation of these, the national government supposed that local governments would merge into these blocks on voluntary basis. In 1965, Statistics Sweden began to publish statistics for these theoretically constructed units (282 altogether). However, the vast majority of the local governments were reluctant to merge.\footnote{Only 35 of the new localities were completed 1969. Nevertheless, there were more than 35 mergers in the period; 290 localities that existed in 1962 disappeared within the voluntary period and 119 new localities were created.} The Swedish government, led by the Social Democratic Party, was not satisfied with the response of the local governments and decided to make the boundary reform mandatory.\footnote{See Prop (1969) However, the number of municipality blocks dropped by 7 to 275 and some minor changes was made. Protests from local governments were common but in general, they did not have success when objecting the law. See, Wallin (1973) for a treatment.} The law of 1969 forced the local governments to merge in line with the constructed local government blocks before the beginning of 1974. By the start of 1974, Sweden consisted of 278 local governments. Thus, a major difference in the pre-reform period is that they were more than 3 times as many local governments than in the post-reform period. This has the methodological advantage that we do not need to analyze party effects over a large time frame. Moreover, the change in number of local governments were imposed from the central government and the wishes of the local governments were in general neglected. Moreover, since there was partial boundary reform in 1950,
which came into effect 1952, I choose to work with the intermediate period of 1959-1966 in order to avoid reform specific effects.

With respect to elections, the election schedule was fixed during the period and there were elections every fourth year.\textsuperscript{16} Voter turn out were rather stable around 80\%, which was about 9\% lower than the post-reform period. The Swedish system is not bipartisan but a multiparty system, where each voter cast her vote on a party in a closed list fashion. The decision making body is a municipal council where the seats are proportionally distributed between parties with respect to the election result in each constituency. However, previous studies has characterized the Swedish system as approximative bipartisan, since the there has been a very clear and stable division between the non-socialist and socialist parties. This study follows these classifications and defines the treatment indicator $T$ as being 1 for left wing majorities and 0 for right wing majorities.\textsuperscript{17} A major advantage with the pre-reform period is that there are two parties less than in the post-reform period. In the 1960’s neither the Christian Democrats nor the Green Party were represented, which makes the bipartisan approximation more reasonable. A caveat with the data is that there exist undefined majorities due to small local parties that can not be classified into the left-right dimension and at the same time hold the balance of power. The undefined majorities consist of 11\% of the observations. These observation are dropped in the subsequent analysis. All the data are from publicly available from Statistics Sweden.\textsuperscript{18}

Table 1 summarizes the number of different types of majorities for the period 1959-1966, i.e. for two elections. In the period there were 848 left-wing majorities in total and 984 right-wing majorities. Note, at the same time, the left-wings had the power in the national government, which indicates that either voters diverge in their voting behavior between national and local election and/or that many local governments with a small population were right-wing. 205 or 11\% of the majorities were undefined.

\begin{table}[h]
\centering
\caption{Majorities in Swedish Local Governments from 1959-1966}
\begin{tabular}{lccc}
\hline
Election period & Nr. of left-wing & Nr. of right-wing & Nr. undefined \\
\hline
1959-1962 & 389 & 526 & 116 \\
1963-1966 & 459 & 458 & 89 \\
Sum 1955-1966 & 848 & 984 & 205 \\
\hline
\end{tabular}
\end{table}

Table 2 presents summary statistics of the tax rate, the population and the assignment variable vote share. First, the average tax rate is around 9.8. The average

\textsuperscript{16} Elections are held every fourth year, not every third year as in the 1970-1994. Moreover, before 1970, elections were not held at the same time as the national elections.

\textsuperscript{17} See, for example, Alesina et al. (1997). I classify the communist and the social democratic party to be left wing and the conservatives, the liberals and the agricultural party to be right wing.

\textsuperscript{18} See the following publications: Årsbok för Sveriges Kommuner, Kommunernas Finanser och Allmänna Valen.
population in a locality is about 7500 but the large standard deviation indicates that
there both very small and large localities in the sample.

Dividing the sample into majorities there is a significant, however not causal, dif-
ference of about 1.5 percentage units of the tax rate, which about 15 % of the average
tax rate. However, in order to interpret the differences as causal, we turn into the
regressions.

4. Results

In this section, I first present graphical evidence in line with good practice in the
regression discontinuity literature, by plotting the average level of taxes for different
levels of the vote share. Then, I proceed with the estimation and lastly, robustness
checks are carried out. The unit of observation is a local government in one election
period in the subsequent empirical analysis, where every election period results in four
tax rate outcomes. Below the observations are pooled.

4.1. Graphical Evidence. To give an overview of the data, I have divided the
local governments into groups. Each group contain 600 local governments and are
constructed symmetrically, based on their distance from the threshold of 50 %. For
each group, I have calculated the average tax rate plotted it as a function of the average
vote share within each group. The vertical line at origo denotes the threshold at 50
%. To the right, we have the left-wing majority and to the left, right-wing majorities.
The continues line is the predicted tax rate from a regression, including a 4th order
polynomials of vote share and a dummy if there is a left-wing majority.19 Figure 1
shows a distinct jump at 50 %. The difference in means around the threshold is about
0.4 SEK or about 4 % of the average tax rate. The gap of 0.4 SEK is formally a
credible estimate of $\pi$ in (2.2) if we had many observation around the discontinuity. It

\begin{table}
\centering
\begin{tabular}{lcc}
\hline
Variables & Mean & Standard deviation/error \\
\hline
Tax & 9.837 & 1.733 \\
Population & 7478 & 30172.42 \\
Left vote share & .465 & .165 \\
Tax in left-wing & 10.643 & 1.530 \\
Tax in right-wing & 9.172 & 1.581 \\
Population in left wing & 10599.49 & 33704.45 \\
Population in right wing & 4522.357 & 13395.1 \\
Difference tax & -1.470*** & .036 \\
\hline
\end{tabular}
\end{table}

19 Undefined majorities are dropped and also five municipalities that have joint decision body of
local governments and county councils (landsting). Moreover, for graphical reasons, I have cut the
figure at 0.35 above and below the threshold. However, the predicted line is based on the full sample.
is worth mentioning that the average vote share for both the left-wing and the right-wing majority closest to the threshold has a average of vote share of below 52 %. Thus, the graphical evidence gives at hand that a left-wing majority would increase the tax rate by around 4 % more than a right-wing. Moreover, it is reassuring that the tax rate seems to be a rather continues and smooth function of vote shares everywhere else except at the threshold.

Figure 1. Tax Rate and Left Wing Margin of Winning the Election

4.2. Regression Results. As a benchmark, we should notice that the difference in the average tax rate around the discontinuity is around 4 %, as shown in Figure 1. In the regression, I choose to work with the natural logarithm of the income tax, so the differences can be interpreted as percentages. Table 3 presents the results from regressing the tax rate on the a dummy of left-wing majority and different orders of polynomials.\(^\text{20}\) The estimated effect is very close to what the graphical evidence gave at hand. When adding up to a forth order polynomial of the vote share, the effect is around 4- 5 % and highly significant. Clearly, the effects can not be distinguished across

\(^{20}\) Undefined majorities are dropped and also five municipalities that have joint decision body of municipalities and county councils (landsting). Moreover, the number of seats are in many local governments even, so in 44 cases the seats are equally split between the blocks, although the vote share is not even. These observations are also dropped. However, the results are not sensitive for inclusion of these observations.
the specifications on standard 5% significance level. Thus, a left-wing majority increases the income tax rate by around 4% more than a right-wing majority. Restricting the sample to the observations close to the threshold, avoids the potential problem of misspecification of the control function, but decreases efficiency. However, restricting the sample around the threshold, should yield a similar estimates as the effects from the graphs. When restricting the sample to ±5 percentage points around the discontinuity in specification (5), the effect remains stable, which is also true when restricting the sample to ±2 percentage points.\footnote{Pettersson-Lidbom (2007) also includes fixed effects for local governments. When including fixed effects, I can still reject that the effects are smaller in the pre reform period on a 5% significance level.}

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log of Tax Rate</td>
<td>.048</td>
<td>.054</td>
<td>.043</td>
<td>.044</td>
<td>.049</td>
<td>.037</td>
</tr>
<tr>
<td>Vote share polynomial</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td>4th</td>
<td>1st</td>
<td>none</td>
</tr>
<tr>
<td>Sample</td>
<td>full</td>
<td>full</td>
<td>full</td>
<td>full</td>
<td>±5</td>
<td>±2</td>
</tr>
<tr>
<td>N</td>
<td>7518</td>
<td>7518</td>
<td>7518</td>
<td>7518</td>
<td>1492</td>
<td>448</td>
</tr>
<tr>
<td>R²</td>
<td>0.2260</td>
<td>.231</td>
<td>.231</td>
<td>.231</td>
<td>.031</td>
<td>0.0124</td>
</tr>
</tbody>
</table>

\*\*\* Standard errors clustered at term in office.
*** Significant at the 1% level,** at the 5% level,* at the 10% level

It is worth noticing, that the effect around 4% is about three times the size of the estimate found in the post-reform period. For the full sample (specifications 1-4), I can clearly reject that the effects are smaller in the pre-reform sample.\footnote{The standard errors are very similar if we cluster on local government.} Thus, when estimating the partisan effects in the same country, using the same identification strategy and the same political level as unit of analysis, but where the number of local governments are more than three times larger, we find larger party effects. Given the theories, linking the size and number of local governments to the role of parties, this finding is hard to reconcile.

4.3. Robustness. In this section, I make some robustness tests in line with the reasoning of Imbens and Lemieux (2007). Including co-variate is a natural way of improving efficiency. Moreover, by adding controls, we can also, indirectly, test if our treatment is "as-good-as" randomly assigned. Indeed, there is no need for controls when using the regression discontinuity framework, if the control function is correctly specified. However, including controls, can give some information if this assumption seems to be violated, since including controls can alter our estimates if our control function is misspecified. The most natural controls to include, when working with a
two period pooled cross section, are time specific effects. First, it might be the case that there is an upward trend in the income tax process and that parties differ in terms of preferences in absolute tax increases. If that is true, adding time effects should yield larger party effects. One other argument could be that over time, the composition of slight majorities differ with regard to party labels over time in non random fashion and then common shocks could drive the results. We could also include other characteristics that we know is related to the income tax rate level. Previous studies shows suggest that population is closely related to the income tax rate. Table 4 presents the results for including time effects and population. Thus, if party control is "as-good-as" randomly assigned, the estimate of the party control should not substantially differ, neither with regard to the size nor the significance level, from the results presented in table 3. It is reassuring that the point estimate of the party control are not substantially altered when comparing with table 3. Comparing the estimates, we see a slight decrease, but the previous estimates are almost within one standard deviation of the estimates presented in table 4. Moreover, when restricting the analysis very close to the threshold, we get almost identical estimates. Thus, we can conclude that the effect are robust to inclusion of time effects and population.

Table 4. Robustness. Including Controls.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax rate</td>
<td>.034</td>
<td>.039</td>
<td>.033</td>
<td>.034</td>
<td>.051</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td>(.012)***</td>
<td>(.012)***</td>
<td>(.015)***</td>
<td>(.015)**</td>
<td>(.035)</td>
<td>(.027)</td>
</tr>
<tr>
<td>Vote share polynomial</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td>4th</td>
<td>1st</td>
<td>none</td>
</tr>
<tr>
<td>Sample</td>
<td>full</td>
<td>full</td>
<td>full</td>
<td>full</td>
<td>±5</td>
<td>±2</td>
</tr>
<tr>
<td>N</td>
<td>7154</td>
<td>7154</td>
<td>7154</td>
<td>7154</td>
<td>1492</td>
<td>448</td>
</tr>
<tr>
<td>R²</td>
<td>0.3331</td>
<td>0.3359</td>
<td>0.3361</td>
<td>0.3361</td>
<td>0.2032</td>
<td>0.2138</td>
</tr>
</tbody>
</table>

Notes: Standard errors clustered at term in office.
Regressions include time-effects and ln(population)
*** Significant at the 1% level,** at the 5% level,* at the 10% level

It is of importance to investigate whether other co-variates also makes jumps at the discontinuity. A jump for other variables indicates that the underlying process might not be the specified mechanism. Table 5 presents the result for regressing the logarithm of population on the same set of variables as before. Including a fourth order polynomial, does not yield a significant effect. More importantly, when comparing the results closer to the threshold the effect switches sign, but remains insignificant. Thus, there no indirect evidence that there exist a jump at the threshold for population.

23 Inserting fixed local governments effects reduces the standard error substatially, without altering the size of the coefficients substantially.
Table 5. The Partisan Effect on Population.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log of Population</td>
<td>.113 (.078)</td>
<td>−.155 (.189)</td>
<td>−.049 (.154)</td>
</tr>
<tr>
<td>Vote share polynomial</td>
<td>4th</td>
<td>1st</td>
<td>none</td>
</tr>
<tr>
<td>Sample</td>
<td>full</td>
<td>±5</td>
<td>±2</td>
</tr>
<tr>
<td>N</td>
<td>7150</td>
<td>1488</td>
<td>448</td>
</tr>
<tr>
<td>R²</td>
<td>0.160</td>
<td>0.026</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Notes: Standard errors clustered at term in office.

*** Significant at the 1% level,** at the 5% level,* at the 10% level

What if the discontinuity at 50% is just a random occurrence. Imbens and Lemieux (2007) proposes to test for an effect at the median of vote share on both sides of the threshold. The median is 0.109 for left wing and -0.133 for right wing. Table 6 below presents the regression results for the two sub groups where the hypothesized threshold is the median on both sides. It is reassuring that there is no evidence of an partisan effect at these values. The estimates are not significant and are close to zero.

Table 6. The Partisan Effect at other Values of the Vote Share.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log of Tax (median left)</td>
<td>.004 (.015)</td>
<td>−.014 (.018)</td>
<td>−.011 (.018)</td>
<td>−.020 (.021)</td>
</tr>
<tr>
<td>log of Tax (median right)</td>
<td>−.006 (.017)</td>
<td>−.009 (.019)</td>
<td>−.005 (.020)</td>
<td>−.024 (.023)</td>
</tr>
<tr>
<td>Vote share polynomial</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td>4th</td>
</tr>
<tr>
<td>Sample</td>
<td>full</td>
<td>±5</td>
<td>±2</td>
<td></td>
</tr>
</tbody>
</table>

* Standard errors clustered at term in office. Regressions include time-effects

*** Significant at the 1% level,** at the 5% level,* at the 10% level

5. Conclusions

This study uses a regression discontinuity approach to estimate partisan effects in the period of 1959-1966. The reason for this choice of unit of analysis and time period is twofold. First the number of previous studies are very few and since the evidence is mixed, there is need for more empirical work. Additionally, many theories find that party effects should be decreasing in the number of jurisdictions. In the time of 1959-1966, Swedish local governments had not yet been forced to merge and the number of local governments were 3 times more than in the post-reform period after 1974. In this paper, I investigate if this prediction is consistent with Swedish data on local
governments. I find a stronger partisan effects than on the post-reform period. In fact I, find that a left-wing local government increases the income tax rate by around 3-4 % more than a right-wing government, which is about four times the size of the effects compared to the post-reform period. Thus, this study rejects the hypotheses that parties do not matter in small local governments. Moreover, the results cast serious doubts on the common view that a greater number of local governments should decrease partisan effects, which calls for more systematic studies on the relation between the number of local governments and party politics. The natural next step for future research would be to use the same type of identification strategy for party effects, but to investigate the relation to the number of local governments formally, i.e., to test for the effect of reducing the number of jurisdiction on the party effect.
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