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1 June 2015

Online at <https://mpra.ub.uni-muenchen.de/65080/>
MPRA Paper No. 65080, posted 18 Jun 2015 18:36 UTC

Opportunistic politicians and fiscal outcomes: the curious case of Vorarlberg

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Abstract

Using a unique set of electoral rules present in the Austrian state of Vorarlberg, we explore the question whether direct election of the mayor affects the size of local governments. Using difference-in-differences estimation and propensity score matching, we find evidence that direct elections of the mayor are associated with lower expenditure on public administration and public personnel, however compensated by higher expenditure in the visible categories of spending i.e. transportation, social protection and promotion of the economy.

JEL classifications: H72, H75, H77, D72

Keywords: local expenditure, opportunistic politicians, electoral rules

1. Introduction

The relationship between fiscal federalism and the size of the public sector remains an area in which no clear empirical picture prevails. Recent analyses of fiscal federalism highlight that office-oriented politicians might abuse their power over the local budgets according to own objective functions e.g. involve in rent extraction or corruption. Most theories of competitive federalism support existence of smaller public sectors in decentralized countries, on the basis of the argument that local decision makers are more accountable to local voters and therefore have few opportunities to misbehave. Moreover, if the taxes are raised at the local level, the local population will keep a close watch on the efficiency of provision of public services financed from their own pockets. Therefore, political accountability at the local level should provide a strong incentive to the politicians to reduce

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inefficient spending as well as involvement in rent seeking.

On the other hand, growing literature on local political budget cycles suggests, that local politicians involve in budget manipulations before elections to increase the prospects of reelection. It has been reported that total expenditure tends to rise before the elections (see e.g. Veiga and Veiga, 2007; Castro and Martins, 2014; Furdas et al., 2015; Galli and Rossi, 2002). The increase in spending is afterwards compensated either by an increase in tax rates or deficit balancing through drops of expenditure shortly after the election has taken place. Also, Brender (2003) has observed that reelection prospects substantially affect the fiscal outcomes on the local level.

Wide literature addresses the question whether fiscal performance at the local level affects the reelection probabilities. Following the seminal articles of Nordhaus (1975) and Rogoff et al. (1990), Akhmedov and Zhuravskaya (2004) find that pre-electoral manipulation of fiscal instruments increases the incumbent's chances of getting reelected, while Veiga and Veiga (2007) use data from Portuguese municipalities to find that higher expenditures over the whole term (and specifically in election years) increase the chances of political success. This literature suggests, that incumbents have incentive to expand the budgets of the municipalities in order to affect their reelection probabilities.

In this work, we want to explore the question, whether electoral rules, which affect the incentives of politicians matter for the size of local government spending using a unique set of electoral rules present in the Austrian federal state of Vorarlberg. Arguably, the three parallel voting systems in place in Vorarlberg represent a unique source of variation in electoral incentives of the incumbents and levels of electoral accountability. The only other country in Europe for which such institutional differences in the local election procedures exist is Switzerland.

Previous literature exploiting the differences in local electoral systems focused mostly on Swiss cantonal and municipal elections as well as German electoral law reforms. Pom-

merehne (1978) exploits the fact that in the 1970s some Swiss municipalities were direct democracies whereas others used a representative democratic system and finds that the median voter model better reflects the pattern of expenditures if decisions are made directly. Similarly, Feld and Kirchgassner (1999) find that direct democracy has an impact on debt levels of municipalities. More recent literature analyzes some fiscal aspects of electoral rules for the German municipalities, that have undergone a change in the electoral regime. Köthenbürger et al. (2013) finds that municipalities with appointed mayors react less strongly to changes in fiscal incentives. The change in municipal tax rates is three times smaller compared with a system of direct mayoral elections. Similarly, Hesse (2014) using the case of Hesse reveal that municipalities with a directly elected mayor attract 5% more investment transfers from the state. This effect only materializes in the election year which suggests that mayors under the new electoral rule put more effort into grant applications for highly visible infrastructure projects in order to increase their re-election probability. Blume et al. (2008) find that a switch to direct elections of mayors has led to lower expenditures and revenues in the German state Schleswig-Holstein compared to Baden-Wuerttemberg where direct elections were used all along. However, the analysis suffers from the fact that expenditures are aggregated at the state-level. Egger et al. (2007) focus on the introduction of direct mayor elections in Lower Saxony. The authors find that local spending increases with direct mayor elections, in particular redistributive spending. Unfortunately, this setting does not allow the authors to distinguish whether the effect on spending levels can be attributed to electoral incentives or to the increased power of the mayor which give the mayor more room for decision making. Finally, Ade (2014) analyzes a switch of mayor appointment by the local council to direct mayor elections in three German states and provides evidence that tax rates are lower and public spending is higher with directly elected mayors.

As put forward by Drazen and Eslava (2010), voters and incumbents may prefer different

types of government expenditures. Therefore, incumbents may try to influence voters by changing the composition of government spending, rather than the total level of public spending. In this perspective, Kneebone and McKenzie (2001) found no evidence of a political budget cycle for Canadian provinces with respect to aggregate spending. However, they found a budgetary cycle for capital expenditures.

We contribute to the existing literature in several ways. First of all, we analyze whether the electoral incentives matter for different types of local expenditure. Arguably, expenditure categories visible to the voters should be affected in a different way than the categories, which are not directly observed, and therefore less relevant for reelection prospects. In this work, we are able to analyze the effects of the direct election of the mayor on different categories of municipal expenditure. Secondly, unlike Egger et al. (2007), we are able to identify the effect of the direct election independent of any changes to the competences of the mayor, since the last changes to the competences of the mayor has taken place in the years 1988 to 1994 during the adaptation of the Austrian law to the European Union standards, thus before the electoral law reform. Finally, since we concentrate on one region only, we are able to eliminate most of the unobservable characteristics that could differentiate the municipalities in a cross-country or a cross-regional sample.

In the next section, we present the institutions present in Vorarlberg and formulate hypotheses about the impact of these institutions on the levels of public expenditure. Section 3 presents the dataset, variables used in the regression as well as the methodology of analysis. Section 4 presents the main results and Section 5 concludes the work.

2. Institutions and hypotheses

2.1. Institutional background

The state (German: "Bundesland") of Vorarlberg is the westernmost federation state of Austria. It is further divided into 96 municipalities (*Gemeinden*) of diverse size and

area. Mostly populated is Dornbirn with 47.420 inhabitants whereas the least populated Dünsberg inhabits only 144 members of the community. Municipalities in Austria and in particular in Vorarlberg are divided into three administrative categories typically associated with size: normal municipalities, market municipalities and cities. There are currently 80 normal municipalities, 11 market municipalities and 5 cities in Vorarlberg.

Typically, in most European democracies electoral rules at the local level are centrally governed. In federal states, electoral rules may differ at the state level as well e.g. this is the case in Germany and Austria. In Austria the latter is true for most federal states: state law governs electoral laws for municipal elections. A unique exception to this rule is observed in the federal state of Vorarlberg. The electoral rules are set at the local level and since the year 2000 there exist three parallel systems in place: semi-open list for the municipal council together with a direct election of the mayor, semi-open list system often connected with preselection of the list members by the electorate and finally an open election in which each eligible voter freely decides on whom to elect as a the member of the municipal council. Before the year 2000, all municipalities have used a semi-open party system without the direct election of the mayor.

In the semi open-list system, the local parties populate the party lists as well as suggest candidates for the office of the mayor. Eligible electors can place one vote for a list to the municipal council and one vote for a mayor's office candidate. Additionally, each voter may place up to five votes for individual candidates on the chosen list. If in a direct election of the mayor only one candidate stands for the election, voters can still place a Yes/No poll. In 2015, 60 out of 96 municipalities conducted the election according to this system.

The second variant is a different version of a semi open-list party system. It is often preceded by a consultation with the electorate. Parties either send empty polls to the voter who then place the names of desired candidates on the lists, or send a preselected candidates' lists and voters may decide on the order of placement. The mayor is, however,

not directly elected but chosen by the council of the municipality among their freshly elected members. In 2015, the system was used in 20 municipalities.

The last system is entirely open. Each voter receives an empty voting sheet at which she is eligible to place names of desired members of the municipal council freely chosen from all members of the community with a passive suffrage. She can choose a number of names up to a double of the arranged seats in the local council. The newly elected members of the council subsequently choose the mayor among themselves. In 2015, this rule was used in 16 municipalities.

The role of the mayor in local decision making is very strong, both in legal and in practical terms. According to the municipal constitution provisions, mayors chair the municipal council and the municipal board. They are chiefs of the communal administration and implement the decisions of the local bodies. They have power over the municipal budget and represent the community to the outside.

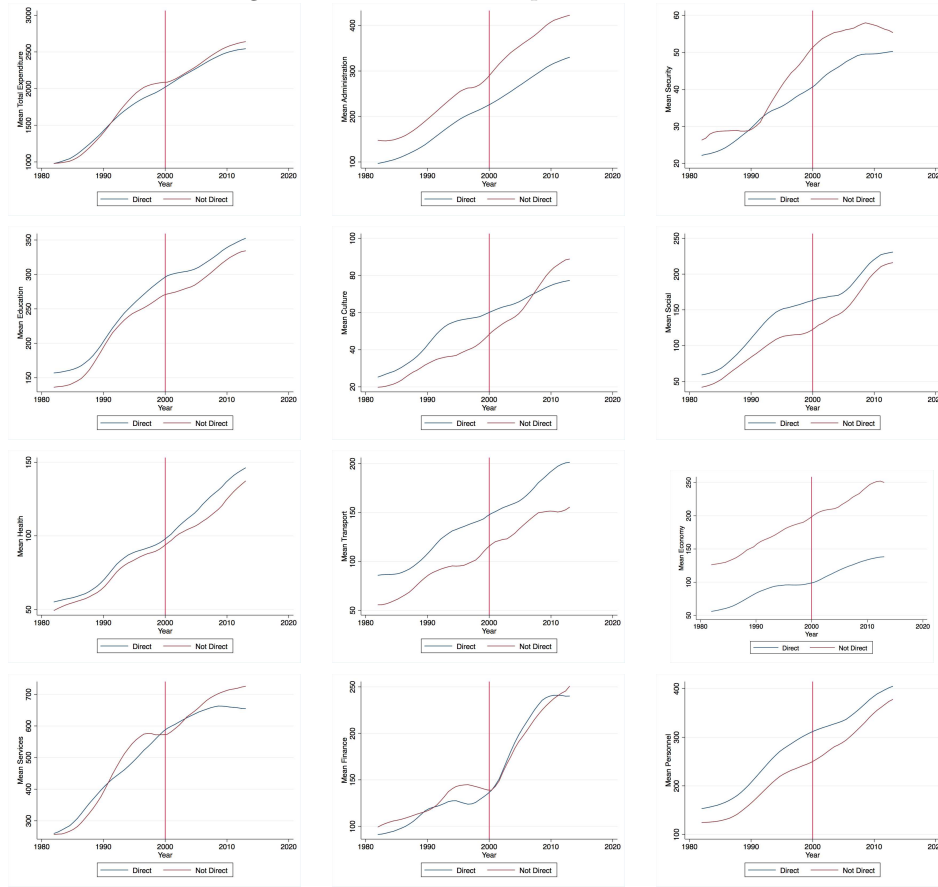
2.2. Hypotheses

We believe that the set of presented rules offers a unique opportunity to explore the research questions. Unlike for the case of cross-country studies and country-level studies, there are comparatively few factors that would affect the fiscal outcomes and differentiate the local entities. Municipalities in the analyzed region differ on grounds of some demographic variables, for which we control, but do not differ in terms of budgeting rules or access to central government transfers, as these are either centrally or regionally (for the whole Bundesland) predetermined. Some differences in the access to financing stem from the fiscal equalization scheme, which aims at reducing the discrepancies between the municipal 'financial strength' (*Finanzkraft*), i.e. providing the means necessary for the municipalities to perform a basic provision of public services and these differences are controlled for as explained in Section 3. The above-cited literature offers a set of suggestions as for how electoral rules should affect the fiscal outcomes. Firstly, different electoral

rules systematically and independently of individual characteristics of the mayor affect the probabilities of reelection. The probability of reelection in turn affects the incentives faced by the politicians in making expenditure decisions. An important factor for determining the incentives of the local governments to manipulate the expenditure levels is the rule-dependent prospect of reelection. The general idea behind electoral incentives is that elections may motivate politicians to act in the interest of voters via the threat of not being re-elected. In reality, this may lead for example to higher spending prior to an election which may only be in the interest of voters in the short run. A reasonable hypothesis is that when the mayor is elected directly, incentives to exert effort in a way that is visible to voters are larger than in the opposite case system because the incumbent needs the support of the electorate at large rather than only the (typically guaranteed) support of her party to be re-elected.

On the other hand, direct elections of the mayor might, in certain cases increase the possibility of reelection. In case the mayor is chosen indirectly from the members of the council, she needs to stand against all the other members, number of which will typically be much higher than the number of candidates standing for a direct election. If this is true, directly elected mayor faces a stronger incentive to influence the expenditure levels. Yet, a directly elected mayor does not necessarily have a support of the local council in his executive decisions, as opposed to the indirect system, in which, by definition, the mayor faces support of the municipal council. In such a case, expenditure might not be easily manipulable by a directly elected mayor, and the effect will be unclear. This would be the case, if the directly mayor and the municipal council represent different parties.

Figure 1: Trends in the dependent variables



3. Methodology and data

3.1. Data

Data comprises information about 96 municipalities in Vorarlberg between years 1982 and 2013, a total of 2634 observations. Fiscal and demographic data has been obtained from the Austrian Statistical Office database, whereas electoral data has been collected from the electoral database of Land Vorarlberg (Vorarlberg, 2015).

Figure 1 shows the mean expenditure levels in the two groups of municipalities: these that have switched to the direct election of the mayor in 2000 and these which have not.

Inspection of Figure 1 reveals the need for an empirical approach which would take into account the initial differences between the municipalities which have switched to the

direct election of the mayor in 2000 and these which have not. In most categories of expenditure we observe systematic differences between the two groups. As explained in the next subsection we shall address this issue by combining propensity score matching with difference-in-differences approach.

Dependent variables in the regressions are the expenditure levels per capita for the total expenditure as well as subcategories of expenditure:

1. Public Administration
2. Security and Public Order
3. Education and Sport
4. Culture and Religion
5. Social Support and Housing
6. Health Protection
7. Transportation
8. Promotion of the Economy
9. Services
10. Finance (i.e. Debt payments)
11. Public Personnel

Main economic determinants of expenditure levels include, obviously the overall level of revenue (*Revenue* – per capita), as well as access to sources of taxation. We include two variables describing the financing patterns: *Local Taxes* and Profit Shares. Local taxes include taxes on local economic activities such as tourist taxes, administrative fees, trade taxes and property taxes as well as communal taxation and reflect the economic development of the region. Profit shares are the shares of the municipality in the general taxation stemming from the fiscal equalization scheme. Fiscal equalization schemes are negotiated within the parliament every 4 years and determines the shares of the municipalities in

the common taxation; these shares depend mostly on the population sizes but also on the "Financial Strength" measured on the basis of tax base in property and the 3% municipal wage taxation ("Kommunalsteuer"). The overall revenue of a municipality comprises additionally grants and transfers, which are mostly earmarked.

Political variables have also been found to affect the levels of local expenditure. We control for the electoral budget cycle. Municipal elections in the region take place every five years, and in our sample the relevant years are 1985, 1990, 1995, 2000, 2005 and 2010. We also control for party effects with dummies *OVP* for the Christian–democratic party, *SPO* for the social–democratic party and *FPO* for the populist Freedom Party of Austria, as opposed to independent local committees (base level). The dummy for *OVP* also measures the vertical political alignment (in all analyzed periods the *OVP* party has won the regional elections), which have been found (e.g. Bracco et al., 2013). We also control for the fragmentation of the council (compare e.g. Houlberg and Pedersen, 2015): Variable *HHI* is the Herfindal Index of the of the council seat share of the parties. Additionally, we add a dummy *SingleParty* for the cases when the Herfindal Index equals 1, therefore all council members come from the same party list. We control for the turnout at the election and the level of political competition measured by the number of electoral lists standing for the election, both before and after the electoral reform. Additionally we control for the incumbency advantage, that is dummy *Incumbent* equals 1 if the current mayor has been reelected. Dummy *Divided* equals 1 when the mayor in the direct election comes from a different party than the majority in the municipal council.

Public expenditure at the local level is typically also determined by demographic and geographic variables. These variables typically include the size of the population (Werck et al., 2008; Costa-Font and Moscone, 2009) population density (Sanz et al., 2002), fraction of the elderly and young inhabitants (Hayo and Neumeier, 2012; Veiga and Veiga, 2007), unemployment rates (Foucault et al., 2008) and some country specific controls. We

control for all of these, however our measure of unemployment captures all members of the community in the age between 15–64 who are not active in the employment market (excluding students and pupils), and not only the individuals registered as unemployed or actively seeking a job. Therefore, these numbers are in fact slightly higher than the official unemployment rates. Since we dispose of information on the actual number of retired persons, we use unlike other studies of local expenditure determinants, this variable instead of population over 65 in the regressions. In fact, in Austria high share of population, for various reasons, becomes retired before the usual legal age, and the actual number of retired inhabitants is, in this case, a much better measure of demand for social services than the age structure.

3.2. Empirical methodology

The unique feature of the municipal elections in Vorarlberg, is that the choice of the electoral rule is chosen by each municipality and for each election separately. Therefore, there is variation in the electoral rule between as well as within the municipalities. This variation is jointly determined by observable characteristics of the municipalities as well as, potentially unobservables. We combine propensity score matching with difference-in-differences to address the issue of potential endogeneity of the rules. This methodology can be summarized as follows:

1. In the first stage we calculate propensity scores for the municipalities on the basis of exogenous characteristics between 1982 and 1990, using a probit model.
2. The propensity scores are used for a year-by-year kernel propensity score matching using Stata routine by Villa (2014).
3. The weights derived from the kernel estimation are then used in the final difference-in-differences regression with additional covariates.

The choice of the exogenous characteristics that enter the matching model is restricted to the initial observed period, i.e. the first eight years. By this we want to avoid any changes in the characteristics of the municipalities in the last two electoral periods before the reform which might happen in expectation of the changes ("anticipation effect"). Inclusion of the initial outcome variable in the propensity score model should reflect the *a priori* preferences for different types of expenditure intrinsic to the municipality members.

The final model, results of which are presented, is therefore:

$$outcome_{it} \cdot weights_{it} = \beta_0 + \beta_1 \cdot reform_t + \beta_2 \cdot Direct_{it} + \beta_3 \cdot reform_t \cdot Direct_{it} + \Gamma \cdot \mathbf{X}_{it} + u_i + v_t + \epsilon_{it}, \quad (1)$$

where β_3 is the difference-in-differences estimator, \mathbf{X}_{it} is the vector of controls and u_i and v_t are the municipality and time fixed effects.

In the first stage probit calculation of the propensity scores, we match the municipalities on the basis of initial characteristics, that is values for years 1982 to 1990: the levels of revenue per capita, local taxation per capita, profit shares per capita as well as initial values of the outcome variables. Results of the probit estimations are presented in Table 1.

Table 1: First stage probit propensity score prediction model: Marginal Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment
Profit Shares	0.38** (2.36)	0.40** (2.40)	0.43*** (2.59)	0.46*** (2.71)	0.46*** (2.83)	0.41** (2.24)	0.26* (1.68)	0.51*** (3.06)	0.22 (1.43)	0.42*** (2.58)	0.45*** (2.74)	0.30* (1.67)
Taxes	0.13 (1.55)	0.16* (1.90)	0.12 (1.44)	0.15* (1.69)	0.12 (1.46)	0.13 (1.48)	0.13 (1.61)	0.12 (1.38)	0.24** (2.57)	0.13 (1.48)	0.13 (1.49)	0.10 (1.13)
Revenue	0.07 (0.37)	-0.09 (-0.63)	-0.14 (-1.07)	-0.24* (-1.69)	-0.20 (-1.48)	-0.20 (-1.53)	-0.25* (-1.90)	-0.26* (-1.89)	0.01 (0.07)	-0.13 (-0.94)	-0.19 (-1.46)	-0.26** (-1.98)
Total Expenditure	-0.00 (-1.45)											
Administration		-0.00** (-2.50)										
Security			-0.00* (-1.83)									
Education				0.00 (1.35)								
Culture					-0.00 (-0.15)							
Social						0.00 (0.46)						
Health							0.00*** (2.70)					
Transport								0.00 (1.20)				
Economy									-0.00** (-2.54)			
Services										-0.00 (-0.69)		
Finance											0.00 (0.23)	
Personnel												0.00 (1.33)
Observations	632	632	632	625	632	632	622	632	632	632	632	632
Correctly Classified	73.9%	75.8%	74.7%	74.0%	74.2%	73.7%	74.0%	74.3%	75.5%	74.0%	74.9%	74.2%

Municipalities that receive higher shares of the tax revenue from the fiscal equalization scheme are more likely to change to the direct election system afterwards. As for individual categories of spending, higher probability of treatment occurs for municipalities with initially higher levels of expenditure on healthcare and lower levels of expenditure on public administration, security and promotion of the economy. The probabilities of treatment are now used in the second stage to match the municipalities using kernel density matching, on a year-by-year basis and for each expenditure category separately. The choice of the kernel matching algorithm is dictated by practical purposes: there are relatively few untreated observations in the sample, and a use of a matching algorithm without replacement would mean a substantial loss of available data.

Propensity score supports are depicted in Figure 2 in the Appendix. Results of the balancing of the outcome variables are presented in Figures 3 to 14 in the Appendix. We can observe that the matching is reliable, and the common support is very broad. Therefore, the estimated propensity scores can be reliably used in the next stage¹

4. Results

Table 2 presents the main results of the estimations. Notice first that the propensity score matching procedure has significantly reduced the initial bias: in the main results, there are no statistically significant differences in the outcome variables dependent on belonging to the treatment group (dummy *Treatment*). Lack of significance of the *Treatment* dummy suggests that the matching procedure was effective.

According to the results presented in Table 2, unlike in Ade (2014) the change to the direct election of the mayor does not have an effect on the total level of expenditure. Yet, we do observe a change in the composition of spending. After the reform, municipalities which

¹For space-saving purposes we do not report the tests results of balancing covariates; these can be obtained from the author upon request.

elect the mayor directly spend on average 35 Euro less on public administration, compared to these which have not change the electoral system. Similarly, we observe a drop in the expenditure on services (91 Euro of the average 635 in this group of municipalities) and on personal costs (32 Euro). On the other hand, municipalities with directly elected mayor spend more on transportation and promotion of the economy.

Concentration of power in the municipal council is generally associated with higher total expenditure levels as well as expenditure on services and personnel. We observe strong party effects in expenditure on health, social support and personal costs: left-wing mayors spending more in these categories and less on culture and economic promotion. Moreover, in the municipalities in which the mayor and the council come from one of the main national parties: OVP and SPO the debt levels are higher. In most categories of expenditure whenever the directly mayor belongs to a different party than the majority in the council, expenditure tends to be lower.

Table 2: Difference in differences – Main Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Expenditure	Administration	Security	Education	Culture	Social	Health	Transport	Economy	Services	Finance	Personnel
Reform	-5.35 (-0.27)	17.94** (2.21)	9.99 (1.08)	-76.29*** (-3.21)	-0.26 (-0.04)	-37.38*** (-3.58)	-21.10* (-1.88)	-74.76*** (-4.07)	11.10 (0.93)	127.71*** (3.65)	25.74 (0.94)	0.35 (0.03)
Treatment	-57.26 (-1.25)	36.95** (1.99)	28.73 (1.36)	-56.77 (-1.04)	-23.81 (-1.55)	-42.03* (-1.76)	45.48* (1.76)	-75.65* (-1.80)	43.40 (1.59)	61.24 (0.76)	-63.82 (-1.01)	58.07** (2.56)
Diff-in-diff	-18.14 (-0.95)	-35.72*** (-4.58)	-12.71 (-1.44)	1.02 (0.04)	-15.47** (-2.41)	9.16 (0.91)	-13.59 (-1.26)	79.43*** (4.51)	24.24** (2.12)	-91.10*** (-2.71)	30.37 (1.15)	-32.30*** (-3.40)
HHI	80.06** (2.31)	7.84 (0.56)	23.67 (1.48)	88.77** (2.15)	5.26 (0.45)	-33.20* (-1.83)	3.23 (0.17)	-59.76* (-1.88)	31.45 (1.52)	137.73** (2.27)	-134.90*** (-2.84)	17.15 (1.00)
Single Party	-8.22 (-0.36)	-7.35 (-0.78)	-0.74 (-0.07)	-80.80*** (-2.94)	-2.56 (-0.33)	20.07* (1.66)	28.78** (2.21)	3.47 (0.16)	-12.23 (-0.89)	-49.37 (-1.22)	96.57*** (3.05)	28.76** (2.51)
Turnout	63.85 (1.05)	-53.37** (-2.15)	-111.91*** (-3.98)	-37.21 (-0.51)	5.68 (0.28)	81.90** (2.57)	170.15*** (4.95)	-99.87* (-1.78)	89.57** (2.46)	185.09* (1.73)	-136.61 (-1.63)	64.66** (2.14)
Lists	10.80 (1.39)	-2.91 (-0.92)	7.64** (2.12)	17.60* (1.89)	0.87 (0.33)	3.96 (0.97)	14.91*** (3.39)	-8.68 (-1.21)	-10.20** (-2.19)	-6.62 (-0.48)	-7.95 (-0.74)	16.10*** (4.16)
SPO	-25.98 (-0.49)	-6.98 (-0.32)	20.14 (0.83)	-48.31 (-0.77)	-12.06 (-0.68)	57.39** (2.07)	90.16*** (3.03)	-57.86 (-1.19)	37.44 (1.19)	-273.92*** (-2.95)	225.60*** (3.10)	127.16*** (4.85)
FPO	-79.23 (-1.39)	12.80 (0.55)	29.63 (1.13)	11.08 (0.16)	15.23 (0.80)	162.78*** (5.46)	-97.60*** (-3.04)	-46.83 (-0.89)	155.71*** (4.58)	-216.78** (-2.17)	-103.76 (-1.32)	176.44*** (6.24)
OVP	2.13 (0.06)	13.82 (0.90)	28.52 (1.64)	-20.23 (-0.45)	17.76 (1.41)	68.42*** (3.48)	-46.09** (-2.18)	-108.40*** (-3.14)	22.92 (1.02)	-125.33* (-1.90)	154.72*** (2.99)	51.67*** (2.77)
Divided	9.64 (0.24)	-44.89*** (-2.74)	2.24 (0.12)	49.48 (1.03)	-4.09 (-0.30)	32.07 (-1.52)	6.63 (0.29)	1.64 (0.04)	-70.48*** (-2.93)	101.51 (1.43)	1.20 (0.02)	-46.17** (-2.31)
Incumbent	8.72 (0.54)	-11.87* (-1.82)	-16.95** (-2.29)	-40.89** (-2.14)	-8.96* (-1.67)	17.95** (2.14)	-15.36* (-1.70)	39.55*** (2.69)	8.54 (0.89)	-53.78* (-1.91)	85.22*** (3.87)	-17.44** (-2.20)
1 Year Before	12.99 (1.24)	2.77 (0.65)	6.49 (1.34)	-30.06** (-2.40)	5.79* (1.65)	36.16*** (6.59)	-3.24 (-0.55)	-7.11 (-0.74)	8.10 (1.29)	-3.47 (-0.19)	-1.93 (-0.13)	2.88 (0.55)
Election Year	17.29* (1.73)	5.67 (1.39)	1.78 (0.38)	-9.90 (-0.83)	5.57* (1.65)	29.73*** (5.67)	10.89* (1.93)	-0.21 (-0.02)	8.11 (1.36)	-15.91 (-0.91)	-16.33 (-1.19)	14.86*** (2.99)
1 Year After	0.46 (0.05)	-4.63 (-1.20)	3.76 (0.86)	12.62 (1.11)	-0.94 (-0.29)	22.27*** (4.47)	1.50 (0.28)	8.70 (0.99)	1.14 (0.20)	-28.88* (-1.73)	-13.24 (-1.01)	2.48 (0.52)
Unemployment	-202.55*** (-5.42)	-39.08** (-2.57)	0.55 (0.03)	-83.88* (-1.88)	-8.55 (-0.68)	7.58 (0.39)	-35.72* (-1.70)	-182.19*** (-5.22)	30.65 (1.37)	64.43 (0.98)	41.42 (0.81)	25.14 (1.36)
Profit Shares	-0.05 (-0.67)	0.14*** (5.00)	-0.00 (-0.08)	-0.29*** (-3.39)	0.05** (2.06)	-0.01 (-0.19)	0.10*** (2.63)	-0.23*** (-3.52)	0.18*** (4.18)	-0.22* (-1.74)	0.23** (2.36)	0.13*** (3.75)
Taxes	0.07** (2.30)	0.04*** (3.21)	-0.04*** (-2.66)	-0.19*** (-5.30)	-0.01 (-1.32)	0.07*** (4.39)	-0.04** (-2.16)	-0.09*** (-3.29)	0.48*** (26.59)	-0.27*** (-5.06)	0.11*** (2.74)	0.13*** (8.85)
Revenue	0.96*** (187.81)	0.03*** (15.81)	0.02*** (7.69)	0.07*** (10.99)	0.00** (2.53)	0.01*** (3.04)	0.02*** (6.35)	0.07*** (15.55)	0.05*** (15.71)	0.51*** (56.80)	0.18*** (25.67)	0.04*** (13.88)
Young	-172.12** (-2.50)	39.50 (1.41)	64.00** (2.01)	7.38 (0.09)	29.19 (1.26)	50.86 (1.41)	-71.72* (-1.85)	-263.35*** (-4.13)	-149.31*** (-3.63)	175.92 (1.45)	-68.54 (-0.72)	64.71* (1.89)
Retired	18.69 (0.19)	-11.69 (-0.29)	104.18** (2.30)	58.66 (0.50)	-17.49 (-0.53)	-138.44*** (-2.69)	-31.06 (-0.56)	12.79 (0.14)	-54.58 (-0.93)	548.90*** (3.18)	-441.04*** (-3.26)	-128.33*** (-2.63)
Pop Density	-0.15 (-1.02)	0.20*** (3.46)	0.07 (1.11)	-0.24 (-1.41)	-0.07 (-1.43)	0.28*** (3.68)	0.78*** (9.71)	0.00 (0.03)	0.01 (0.08)	-1.42*** (-5.65)	0.33* (1.68)	-0.29*** (-4.09)
Inhabitants	-0.01 (-0.35)	-0.03*** (-4.21)	-0.01 (-1.11)	0.02 (1.31)	0.01 (1.59)	-0.01 (-1.08)	-0.09*** (-10.86)	-0.04*** (-2.79)	-0.01 (-1.44)	0.16*** (6.12)	-0.03 (-1.24)	0.05*** (6.16)
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2634	2634	2634	2634	2625	2634	2634	2626	2634	2634	2634	2634

t-Statistics with robust clustered S.E. in parentheses, * 0.1 ** 0.05 *** 0.01

4.1. Robustness analysis

Tables 4 and 5 in the Appendix presents the results of the estimations, while correcting for the potential outliers thus taking into account the assymmetric distribution of the outcome variables, thus including the observations below the 99th percentile and 90th percentile of the outcome variable respectively. Additionally Table 6 in the Appendix presents results of the estimation without the municipalities with the City or Market status. These corrections do not change the main conclusions: a significant decrease in the spending on public expenditure and personnel costs is observed. A known problem whenever using propensity score matching is a potential for too low standard errors, as estimation steps add variation beyond the normal sampling variation. A One way to deal with this problem is to use bootstrapping as suggested e.g. by Lechner (2002) is the use of bootstrapped standard errors. Table 7 in the appendix presents the results of the estimation with bootstrapped standard errors.

5. Conclusions

It is often hypothesised that a direct election of a president or a mayor can lead to lower size of the public sector. In this work, we show that the local expenditure levels are not necessarily lower if the mayor is elected directly. Indeed, we find that the expenditure on public administration, public personnel and public services seems to be lower, yet other categories of expenditure compensate the change. We link the latter finding to the opportunistic behavior of mayors, who wish to guarantee reelection by shifting expenditure towards visible categories.

In our sample, the latter result relies on the fact that local governments are only to low extent self-financing their activities. Unlike in the case of Swiss municipalities, which rely mostly on own taxation, Austrian local governors face incentives to keep expenditure levels high. The common pool problem in this case, does not allow for expression of fiscal

responsibility and the expected effect of direct election is mitigated.

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Appendix

Table 3: Summary statistics of the outcome variables

	No Change		Change to Direct		Diff. (t-test)
	Mean	Std. Dev.	Mean	Std. Dev.	
Total Expenditure	2688.111	2365.352	2106.484	1621.859	-6.441
Administration	291.119	210.122	213.56	135.966	-9.735
Security	95.52	190.921	52.528	77.523	-6.131
Education	298.928	239.441	313.101	273.327	1.385
Culture	52.136	70.192	60.212	82.667	2.620
Social	146.925	128.269	175.2	127.759	5.260
Health	106.241	101.186	142.163	189.849	6.644
Transport	175.793	229.784	176.551	222.966	0.006
Economy	217.752	419.033	120.377	330.404	-6.001
Services	994.706	1321.105	635.425	724.01	-7.309
Finance	308.815	511.054	224.92	387.57	-4.215
Personnel	306.102	289.319	335.64	237.402	2.425

Figure 2: Propensity scores

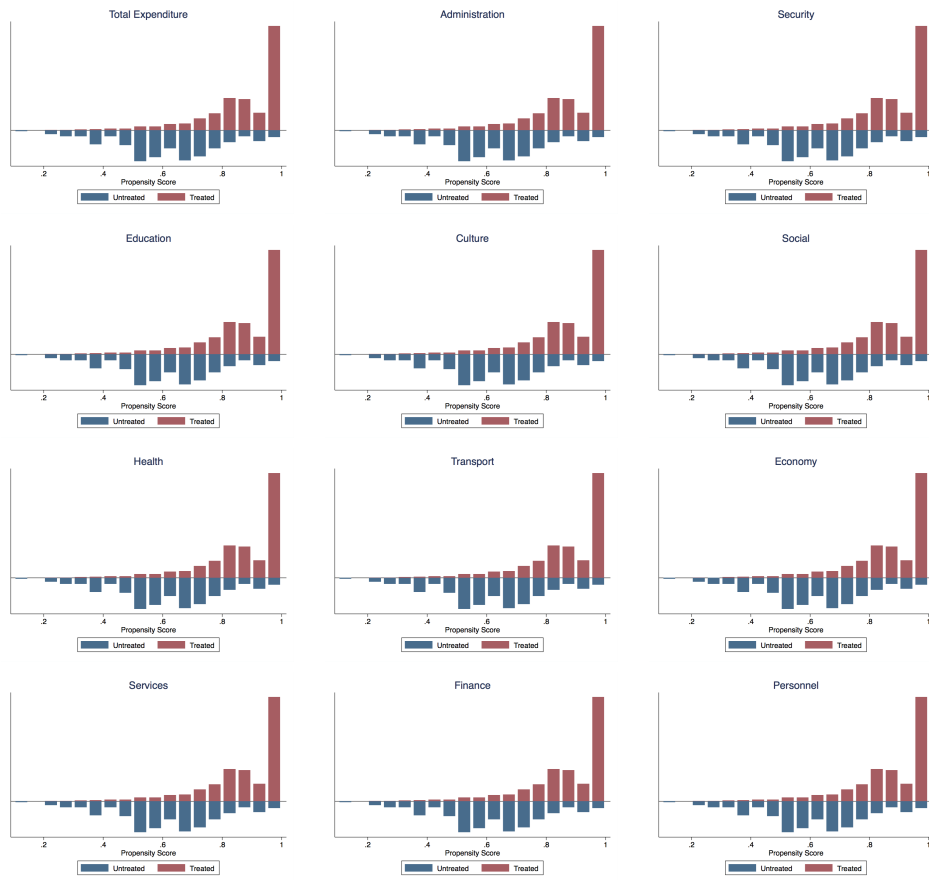


Figure 3: Matching on the outcome variable: Total Expenditure

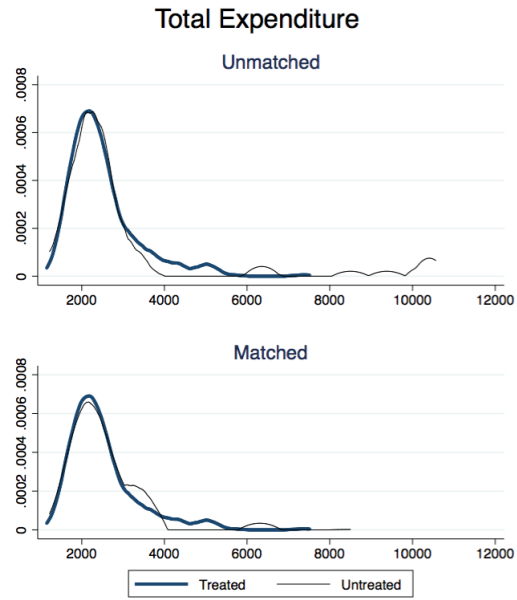


Figure 4: Matching on the outcome variable: Administration

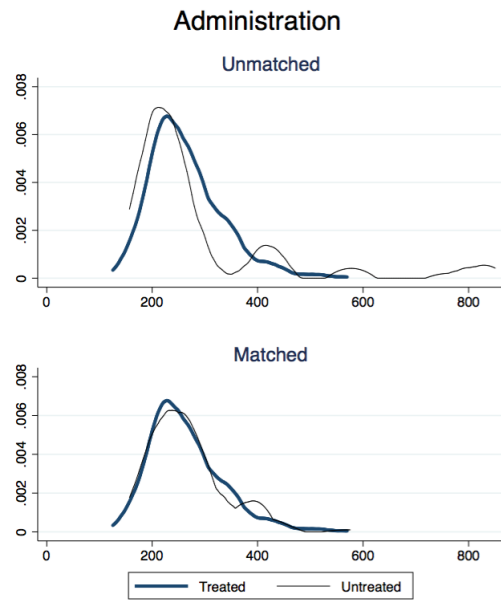


Figure 5: Matching on the outcome variable: Security

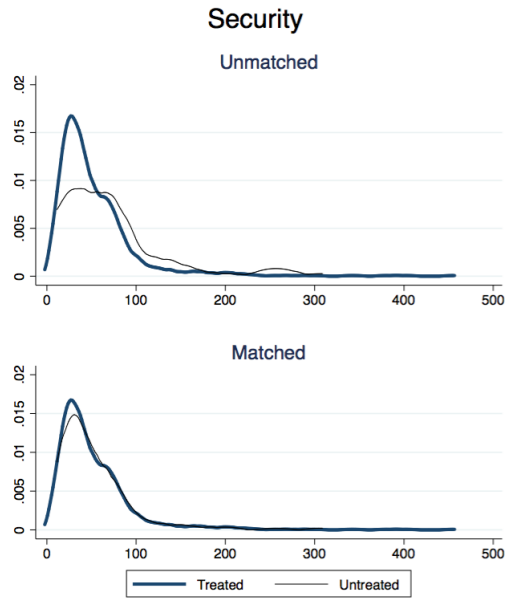


Figure 6: Matching on the outcome variable: Education

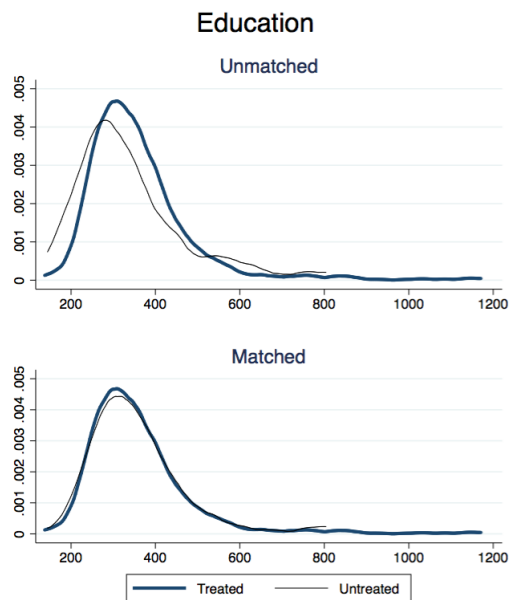


Figure 7: Matching on the outcome variable: Culture

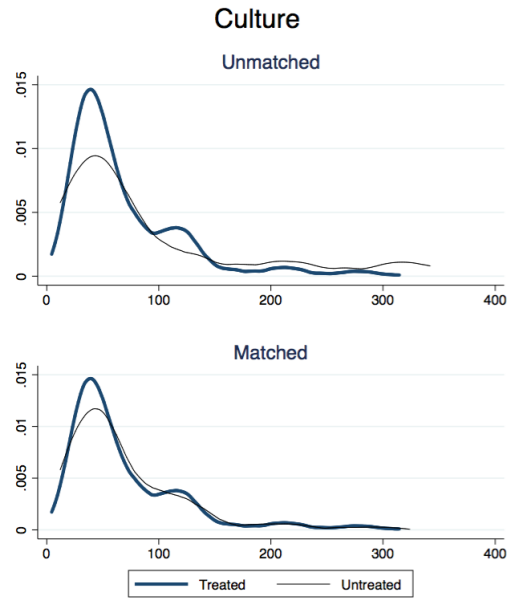


Figure 8: Matching on the outcome variable: Social

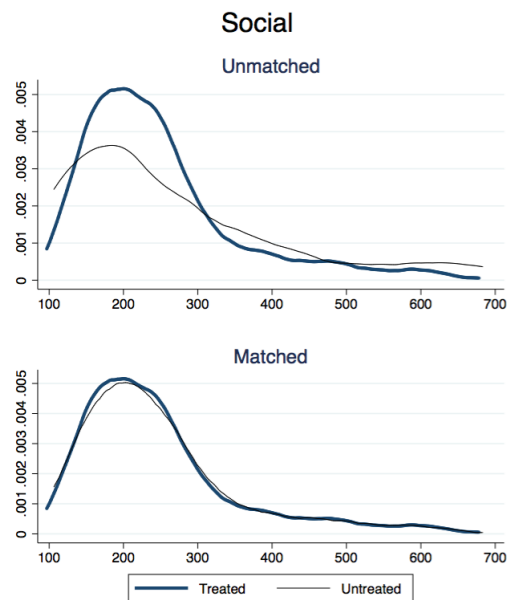


Figure 9: Matching on the outcome variable: Health

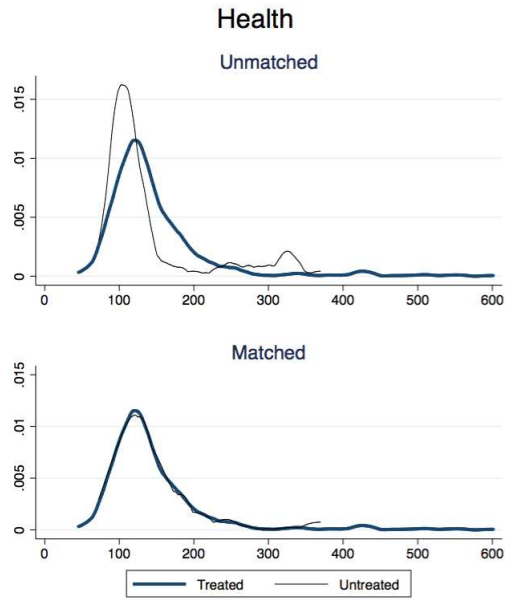


Figure 10: Matching on the outcome variable: Transport

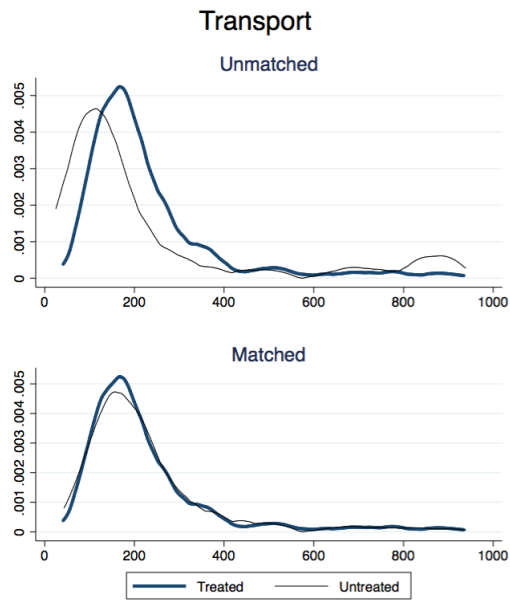


Figure 11: Matching on the outcome variable: Economy

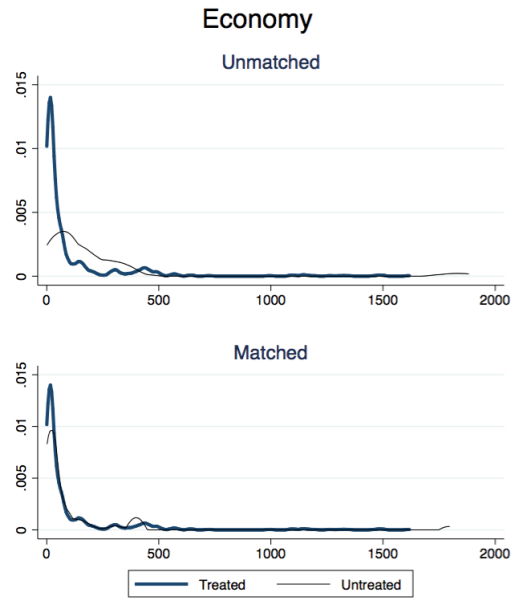


Figure 12: Matching on the outcome variable: Services

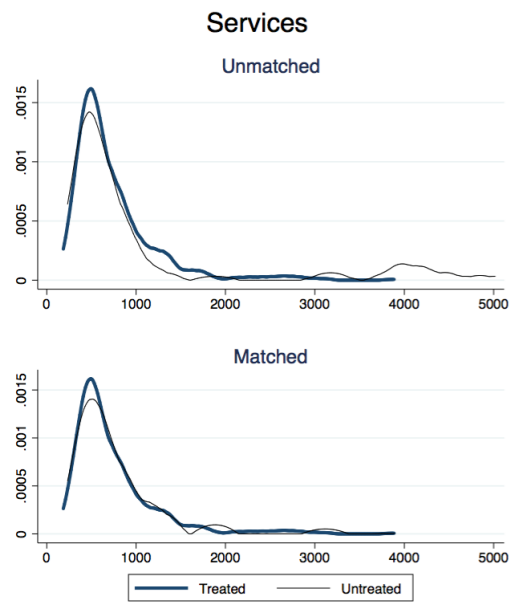


Figure 13: Matching on the outcome variable: Finance

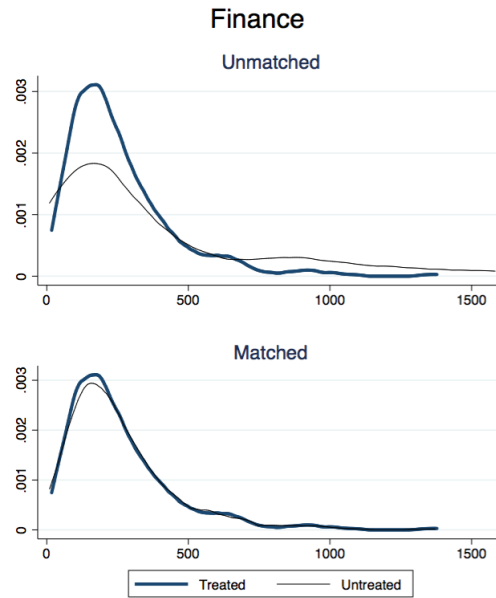


Figure 14: Matching on the outcome variable: Personnel

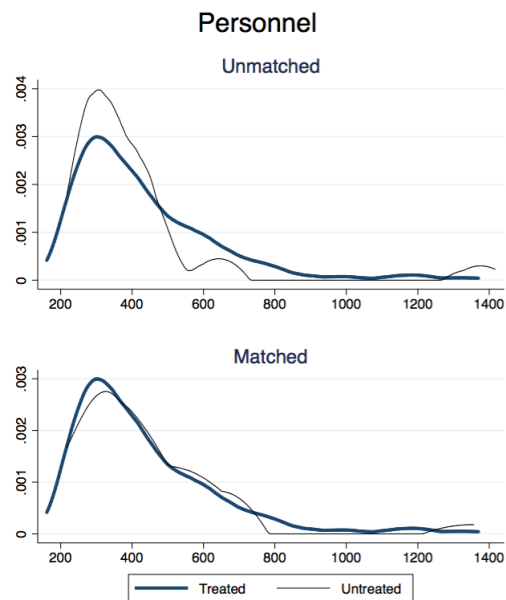


Table 4: Difference in differences – Outlier correction: 99th percentile cutoff

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Expenditure	Administration	Security	Education	Culture	Social	Health	Transport	Economy	Services	Finance	Personnel
Reform	-10.14 (-0.58)	24.77*** (3.63)	2.14 (0.34)	-42.23*** (-2.82)	-7.71** (-2.18)	-27.33*** (-3.48)	-20.01*** (-2.67)	-56.31*** (-5.80)	12.24 (1.47)	126.32*** (4.11)	20.39 (1.04)	-0.81 (-0.09)
Treatment	-56.48 (-1.42)	36.41** (2.33)	15.19 (1.05)	-72.89** (-2.13)	0.98 (0.12)	-31.46* (-1.76)	15.83 (0.92)	-63.25*** (-2.85)	54.83*** (2.89)	6.75 (0.10)	-23.49 (-0.52)	53.47** (2.54)
Diff-in-Diff	-9.72 (-0.58)	-42.98*** (-6.53)	-0.52 (-0.09)	-7.85 (-0.55)	-2.03 (-0.59)	1.10 (0.15)	-0.23 (-0.03)	60.83*** (6.49)	2.39 (0.30)	-74.66** (-2.52)	8.52 (0.45)	-29.71*** (-3.34)
HHI	32.77 (1.07)	0.40 (0.03)	0.45 (0.04)	87.73*** (3.38)	-4.94 (-0.80)	-24.90* (-1.84)	10.64 (0.82)	-58.32*** (-3.42)	27.81* (1.91)	144.74*** (2.71)	-111.63*** (-3.28)	17.64 (1.09)
Single Party	16.03 (0.79)	-1.36 (-0.17)	5.89 (0.80)	-48.77*** (-2.82)	0.26 (0.06)	17.86** (1.98)	-0.30 (-0.03)	10.16 (0.90)	-6.16 (-0.64)	-56.18 (-1.58)	39.51* (1.75)	27.15** (2.53)
Turnout	34.93 (0.66)	-50.18** (-2.41)	-101.94*** (-5.27)	2.93 (0.06)	-17.74 (-1.64)	48.00** (2.00)	126.21*** (5.52)	-21.34 (-0.72)	81.56*** (3.22)	277.94*** (2.96)	-119.41** (-2.00)	91.90*** (3.25)
Lists	5.71 (0.84)	-3.81 (-1.43)	3.78 (1.53)	9.33 (1.60)	1.10 (0.80)	1.07 (0.35)	-3.74 (-1.25)	-7.63** (-2.01)	-6.39** (-1.97)	-9.98 (-0.83)	0.21 (0.03)	15.73*** (4.35)
SPO	-16.91 (-0.37)	21.97 (1.21)	35.33** (2.08)	1.31 (0.03)	-8.35 (-0.88)	28.30 (1.35)	170.33*** (8.27)	-26.03 (-1.01)	47.94** (2.19)	-210.43*** (-2.60)	178.29*** (3.44)	168.64*** (6.85)
FPO	-61.22 (-1.23)	47.39** (2.42)	13.37 (0.74)	39.47 (0.93)	9.21 (0.91)	134.34*** (5.92)	-70.47*** (-3.30)	4.44 (0.16)	204.86*** (8.67)	-154.05* (-1.76)	-67.15 (-1.20)	167.96*** (6.37)
OVP	10.24 (0.31)	39.08*** (3.01)	13.35 (1.11)	13.87 (0.49)	9.16 (1.38)	44.16*** (2.91)	-31.36** (-2.23)	-68.37*** (-3.72)	35.30** (2.27)	-101.09* (-1.76)	115.65*** (3.13)	47.18*** (2.72)
Divided	10.44 (0.30)	-43.70*** (-3.18)	3.49 (0.27)	46.34 (1.54)	-9.95 (-1.37)	-17.47 (-1.11)	-6.74 (-0.45)	3.57 (0.18)	-51.81*** (-3.11)	100.12 (1.62)	11.62 (0.29)	-63.69*** (-3.42)
Incumbent	7.48 (0.53)	-7.33 (-1.34)	-15.16*** (-2.72)	-32.72*** (-4.79)	-13.62*** (-2.72)	-1.27 (-0.20)	5.29 (0.88)	-2.42 (-0.31)	2.86 (0.43)	-37.21 (-1.51)	47.23*** (3.00)	-7.88 (-1.06)
1 Year Before	6.84 (0.74)	0.80 (0.22)	3.24 (0.97)	-20.02** (-2.54)	2.75 (1.48)	9.36** (2.22)	1.87 (0.48)	1.65 (0.32)	9.80** (2.24)	11.59 (0.72)	-3.04 (-0.29)	5.27 (1.08)
Election Year	9.37 (1.07)	-0.86 (-0.25)	-1.75 (-0.55)	-1.59 (-0.21)	3.88** (2.17)	29.01*** (7.40)	13.63*** (3.62)	10.57** (2.17)	7.88* (1.88)	-0.69 (-0.04)	-19.30** (-1.97)	16.98*** (3.65)
1 Year After	-1.30 (-0.16)	-3.29 (-1.01)	-0.94 (-0.31)	15.12** (2.12)	-2.16 (-1.27)	23.76*** (6.38)	4.16 (1.16)	8.45* (1.82)	2.37 (0.60)	-28.73* (-1.96)	2.93 (0.31)	5.40 (1.23)
Unemployment	-187.58*** (-5.67)	-43.97*** (-3.40)	-2.73 (-0.23)	-64.18** (-2.29)	-7.81 (-1.18)	12.19 (0.83)	-30.21** (-2.16)	-47.91** (-2.54)	-32.91** (-2.10)	65.52 (1.14)	-21.81 (-0.59)	29.37* (1.68)
Profit Shares	-0.17** (-2.33)	0.07** (2.43)	-0.03 (-1.34)	-0.05 (-0.91)	0.04*** (2.76)	-0.02 (-0.83)	0.07*** (2.81)	-0.05 (-1.49)	0.10*** (2.95)	0.16 (1.35)	0.07 (0.90)	0.17*** (4.61)
Taxes	0.07** (2.18)	0.05*** (4.21)	0.02** (2.04)	-0.01 (-0.53)	0.01 (0.95)	0.08*** (6.84)	0.00 (0.09)	0.04** (2.40)	0.31*** (20.33)	-0.11** (-2.19)	-0.03 (-0.90)	0.13*** (8.55)
Revenue	0.96*** (174.78)	0.02*** (9.60)	0.01*** (5.08)	0.03*** (6.24)	0.00 (0.51)	0.00 (1.09)	0.01*** (2.94)	0.02*** (7.41)	0.03*** (11.30)	0.40*** (41.55)	0.11*** (18.31)	0.03*** (11.72)
Young	-173.68*** (-2.84)	69.82*** (2.93)	58.23*** (2.66)	0.20 (0.00)	3.19 (0.26)	16.27 (0.60)	-73.55*** (-2.85)	-32.36 (-0.95)	6.66 (0.23)	187.63* (1.75)	109.39 (1.59)	52.60* (1.65)
Retired	76.78 (0.87)	26.77 (0.78)	2.92 (0.09)	201.37*** (2.73)	-24.86 (-1.41)	-62.64 (-1.62)	-18.57 (-0.50)	28.47 (0.58)	-73.91* (-1.76)	588.93*** (3.84)	-504.04*** (-5.08)	-99.96** (-2.17)
Pop Density	-0.18 (-1.46)	0.16*** (3.23)	0.02 (0.51)	-0.22** (-2.06)	-0.06** (-2.55)	0.23*** (4.14)	0.65*** (12.03)	-0.00 (-0.03)	-0.09 (-1.43)	-1.48*** (-6.72)	0.12 (0.88)	0.04 (0.51)
Inhabitants	-0.00 (-0.11)	-0.02*** (-4.48)	-0.00 (-0.88)	0.02* (1.78)	0.01** (-3.38)	-0.00 (-0.62)	-0.08*** (-14.08)	-0.02*** (-3.38)	-0.01 (-0.86)	0.16*** (6.90)	-0.00 (-0.27)	0.01 (0.63)
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2603	2606	2606	2605	2598	2606	2604	2591	2605	2604	2599	2604

t-Statistics with robust clustered S.E. in parentheses, * 0.1 ** 0.05 *** 0.01

Table 5: Difference in differences – Outlier correction: 90th percentile cutoff

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Expenditure	Administration	Security	Education	Culture	Social	Health	Transport	Economy	Services	Finance	Personnel
Reform	-8.34 (-0.63)	14.37*** (3.77)	10.73*** (3.93)	-8.08 (-0.92)	-7.83*** (-3.85)	-24.72*** (-6.55)	-13.47*** (-6.22)	-35.76*** (-6.08)	13.94*** (4.23)	83.16*** (3.85)	14.73 (1.24)	-9.78* (-1.66)
Treatment	-44.13 (-1.48)	30.83*** (3.46)	8.51 (1.29)	-3.73 (-0.19)	3.83 (0.83)	-61.97*** (-6.64)	-0.43 (-0.09)	-22.67* (-1.75)	40.14*** (4.92)	-12.54 (-0.26)	20.65 (0.74)	19.85 (1.40)
Diff-in-Diff	-1.83 (-0.14)	-18.32*** (-4.81)	-11.98*** (-4.51)	8.15 (0.95)	3.71* (1.84)	-3.24 (-0.89)	9.63*** (4.58)	30.65*** (5.30)	-10.12*** (-3.15)	-32.38 (-1.53)	6.34 (0.55)	-15.76*** (-2.75)
HHI	37.20 (1.56)	-3.82 (-0.55)	1.14 (0.23)	21.41 (1.39)	-9.16** (-2.49)	-3.79 (-0.57)	-0.21 (-0.05)	-24.26** (-2.28)	5.93 (1.00)	172.79*** (4.51)	-29.36 (-1.36)	34.75*** (3.31)
Single Party	6.27 (0.41)	4.79 (1.05)	2.67 (0.82)	-3.75 (-0.36)	2.17 (0.90)	1.04 (0.24)	-2.55 (-1.02)	12.62* (1.85)	1.68 (0.43)	-70.63*** (-2.79)	-3.11 (-0.22)	3.60 (0.52)
Turnout	15.04 (0.36)	-44.68*** (-3.62)	-59.75*** (-7.09)	41.61 (1.57)	-11.74* (-1.86)	-37.46*** (-3.28)	-1.29 (-0.19)	5.73 (0.31)	0.25 (0.02)	393.48*** (5.81)	-112.09*** (-3.03)	-24.62 (-1.33)
Lists	11.87** (2.29)	-1.73 (-1.16)	2.81*** (2.62)	3.17 (0.93)	0.02 (0.02)	0.35 (0.24)	-1.57* (-1.73)	2.95 (1.29)	0.00 (0.00)	-9.93 (-1.19)	5.83 (1.26)	8.54*** (3.57)
SPO	-56.55 (-1.52)	7.10 (0.66)	0.31 (0.04)	43.52* (1.80)	-3.81 (-0.63)	-10.99 (-1.04)	-7.35 (-1.01)	-30.52* (-1.83)	-1.13 (-0.12)	-114.10** (-2.01)	90.79*** (2.83)	69.11*** (3.44)
FPO	-15.46 (-0.37)	37.92*** (3.27)	5.78 (0.73)	61.33** (2.38)	6.85 (1.13)	42.55*** (3.51)	-24.00*** (-3.90)	-38.09** (-2.04)	31.65*** (2.87)	-28.28 (-0.44)	-48.74 (-1.41)	153.75*** (7.45)
OVP	21.97 (0.85)	14.72* (1.86)	-5.51 (-1.01)	35.33** (2.03)	1.86 (0.47)	13.07* (1.68)	-8.59** (-2.08)	-31.66*** (-2.80)	9.82 (1.51)	-36.64 (-0.91)	43.84* (1.82)	41.01*** (3.71)
Divided	-33.25 (-1.20)	-36.52*** (-4.61)	1.85 (0.33)	29.04 (1.64)	-6.94* (-1.67)	2.64 (0.36)	0.07 (0.02)	-9.47 (-0.77)	-17.75** (-2.53)	43.13 (0.98)	-4.79 (-0.20)	-43.92*** (-3.59)
Incumbent	8.23 (0.75)	-14.31*** (-4.47)	-6.26*** (-2.81)	-12.94* (-1.82)	-6.56*** (-3.83)	-6.94** (-2.21)	1.48 (0.84)	0.65 (0.13)	-7.60*** (-2.85)	0.33 (0.02)	13.23 (1.33)	-19.27*** (-3.86)
1 Year Before	10.84 (1.54)	5.26** (2.53)	4.46*** (3.08)	1.56 (0.34)	-1.51 (-1.38)	6.64*** (3.39)	3.61*** (3.14)	-1.26 (-0.40)	0.41 (0.23)	11.43 (0.99)	-12.41** (-1.97)	3.10 (0.97)
Election Year	15.28** (2.25)	7.62*** (3.82)	-0.85 (-0.61)	-3.34 (-0.75)	-0.57 (-0.54)	0.26 (0.14)	6.64*** (5.93)	8.23*** (2.78)	-1.16 (-0.68)	3.86 (0.35)	-13.52** (-2.27)	10.83*** (3.54)
1 Year After	4.11 (0.65)	7.21*** (3.87)	0.13 (0.10)	9.11** (2.15)	-3.09*** (-3.09)	4.38** (2.47)	1.26 (1.20)	1.47 (0.52)	-0.01 (-0.01)	-6.80 (-0.66)	-2.55 (-0.45)	3.19 (1.12)
Unemployment	-166.30*** (-6.35)	-1.32 (-0.16)	13.85*** (2.65)	-1.61 (-0.10)	8.56** (2.22)	3.21 (0.48)	-3.73 (-0.92)	-27.11** (-2.29)	-16.77*** (-2.69)	48.30 (1.18)	13.21 (0.57)	42.68*** (3.87)
Profit Shares	-0.09 (-1.35)	0.09*** (4.39)	0.01 (0.88)	0.09** (2.55)	-0.02** (-2.38)	0.03* (1.79)	0.03*** (2.83)	-0.02 (-0.78)	-0.00 (-0.23)	-0.07 (-0.68)	0.11** (2.03)	0.08** (2.56)
Taxes	0.01 (0.31)	0.01 (1.12)	-0.00 (-0.23)	0.02 (1.03)	0.00 (0.81)	0.05*** (7.38)	0.01 (1.49)	0.01 (0.48)	0.05*** (5.69)	0.02 (0.29)	0.03 (1.24)	0.07*** (5.19)
Revenue	0.96*** (137.31)	0.01*** (6.47)	0.00*** (2.83)	0.01** (2.26)	0.00 (0.30)	0.00 (1.01)	0.00 (1.33)	0.01*** (4.49)	0.00 (0.62)	0.20*** (21.79)	0.01*** (2.95)	0.01*** (6.37)
Young	-209.09*** (-4.32)	46.81*** (3.13)	31.75*** (3.23)	85.09*** (2.66)	-1.64 (-0.23)	2.60 (0.21)	-6.57 (-0.88)	6.02 (0.28)	19.44* (1.68)	130.02* (1.68)	-19.78 (-0.45)	63.45*** (3.13)
Retired	-34.37 (-0.46)	79.84*** (3.64)	-45.47*** (-3.14)	110.84** (2.54)	-14.58 (-1.36)	3.94 (0.21)	15.33 (1.38)	68.44** (2.14)	-44.23** (-2.56)	297.00** (2.51)	-183.90*** (-2.86)	46.18 (1.50)
Pop Density	-0.04 (-0.40)	0.03 (1.12)	0.05*** (2.70)	-0.12* (-1.82)	-0.05*** (-2.86)	0.24*** (8.16)	0.07*** (3.54)	0.05 (1.12)	-0.09*** (-4.07)	-0.65*** (-3.47)	-0.06 (-0.72)	0.11** (2.09)
Inhabitants	-0.01 (-0.88)	-0.01*** (-2.61)	-0.00 (-1.14)	0.02** (2.29)	0.01*** (3.29)	-0.01*** (-4.59)	-0.01*** (-4.47)	-0.02*** (-3.93)	0.01*** (3.24)	0.05** (2.43)	0.02** (1.97)	-0.00 (-0.82)
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2337	2347	2346	2346	2339	2340	2352	2333	2345	2343	2336	2339

t-Statistics with robust clustered S.E. in parentheses, * 0.1 ** 0.05 *** 0.01

Table 6: Difference in differences – Outlier correction: No cities and markets

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Expenditure	Administration	Security	Education	Culture	Social	Health	Transport	Economy	Services	Finance	Personnel
Reform	-3.02 (-0.13)	19.00** (2.09)	11.43 (1.09)	-98.81*** (-3.71)	3.56 (0.49)	-36.11*** (-3.61)	-16.44* (-1.90)	-56.45*** (-2.75)	13.12 (0.98)	125.18*** (3.25)	31.63 (1.03)	-6.99 (-0.78)
Treatment	-58.86 (-1.18)	35.39* (1.77)	30.44 (1.32)	-64.69 (-1.10)	-24.28 (-1.49)	-51.79** (-2.34)	21.99 (1.15)	-75.87* (-1.68)	39.32 (1.33)	103.58 (1.22)	-73.47 (-1.08)	40.69** (2.06)
Diff-in-diff	-17.04 (-0.78)	-31.82*** (-3.62)	-12.83 (-1.27)	2.69 (0.10)	-17.39** (-2.45)	11.20 (1.15)	4.54 (0.54)	64.54*** (3.25)	30.63** (2.35)	-103.69*** (-2.78)	35.69 (1.20)	-13.64 (-1.58)
HHI	77.34** (2.00)	7.51 (0.49)	24.58 (1.38)	75.26* (1.66)	4.93 (0.39)	-27.18 (-1.59)	-5.65 (-0.38)	-65.91* (-1.89)	39.13* (1.71)	158.54** (2.42)	-135.39*** (-2.60)	7.88 (0.52)
Single Party	-6.86 (-0.26)	-10.10 (-0.97)	1.13 (0.09)	-76.23** (-2.51)	-3.33 (-0.39)	11.41 (0.99)	33.16*** (3.35)	4.14 (0.18)	-17.27 (-1.12)	-49.82 (-1.13)	100.96*** (2.88)	25.20** (2.47)
Turnout	86.35 (1.20)	-62.71** (-2.17)	-123.89*** (-3.73)	-27.45 (-1.03)	-0.64 (-0.32)	61.17* (1.92)	153.91*** (5.58)	-66.06 (-1.01)	87.43** (2.05)	211.86* (1.73)	-148.02 (-1.52)	114.51*** (4.03)
Listen	11.13 (1.18)	-2.94 (-0.78)	10.31** (2.37)	20.28* (1.83)	-0.19 (-0.06)	3.80 (0.91)	16.90*** (4.69)	-9.85 (-1.16)	-9.25* (-1.66)	-12.03 (-0.75)	-6.06 (-0.48)	17.10*** (4.61)
SPO	-16.40 (-0.23)	-1.28 (-0.05)	15.47 (0.48)	-61.54 (-0.75)	16.38 (0.72)	72.94** (2.36)	-70.72*** (-2.64)	-14.48 (-0.23)	78.89* (1.90)	-310.73*** (-2.61)	259.91*** (2.74)	66.77** (2.42)
FPO	-102.22 (-1.57)	-1.12 (-0.04)	25.23 (0.84)	11.66 (0.15)	20.95 (0.99)	159.86*** (5.55)	-99.87*** (-4.00)	-23.39 (-0.40)	180.23*** (4.67)	-222.89** (-2.02)	-151.11* (-1.71)	173.98*** (6.78)
OVP	-7.83 (-0.19)	8.31 (0.50)	26.68 (1.40)	-31.64 (-0.65)	21.27 (1.59)	64.09*** (3.52)	-55.89*** (-3.54)	-102.26*** (-2.75)	20.01 (0.82)	-113.08 (-1.62)	155.65*** (2.79)	28.37* (1.75)
Divided	4.14 (0.09)	-49.00*** (-2.72)	3.47 (0.17)	54.49 (1.03)	-4.58 (-0.31)	-41.32** (-2.08)	-6.27 (-0.36)	-3.90 (-0.10)	-83.59*** (-3.14)	132.45* (1.74)	1.38 (0.02)	-89.61*** (-5.06)
Incumbent	10.48 (0.53)	-12.56 (-1.59)	-18.76** (-2.06)	-54.32** (-2.35)	-4.65 (-0.73)	27.75*** (3.18)	5.10 (0.68)	68.60*** (3.85)	7.69 (0.66)	-98.72*** (-2.95)	90.35*** (3.38)	3.49 (0.45)
1 Year Before	11.21 (0.90)	0.56 (0.11)	8.15 (1.42)	-43.36*** (-2.97)	6.37 (1.58)	20.61*** (3.75)	0.59 (0.12)	-12.07 (-1.08)	11.42 (1.55)	9.73 (0.46)	9.08 (0.54)	2.89 (0.59)
Election Year	18.98 (1.58)	3.49 (0.72)	2.55 (0.46)	-13.18 (-0.93)	6.82* (1.73)	10.57** (1.99)	9.02* (1.96)	-6.96 (-0.64)	9.97 (1.40)	-1.77 (-0.09)	-1.39 (-0.09)	11.25** (2.37)
1 Year After	-0.46 (-0.04)	-8.26* (-1.77)	5.66 (1.06)	4.55 (0.33)	-0.29 (-0.08)	8.77* (1.71)	0.31 (0.07)	7.02 (0.67)	1.23 (0.18)	-18.65 (-0.94)	-0.61 (-0.04)	1.29 (0.28)
Unemployment	-277.78*** (-5.78)	-78.41*** (-4.07)	-9.57 (-0.43)	-89.05 (-1.58)	-16.30 (-1.05)	-6.94 (-0.33)	-34.35* (-1.87)	-212.28*** (-4.79)	52.51* (1.85)	47.45 (0.58)	68.99 (1.06)	3.11 (0.16)
Profit Shares	-0.08 (-1.00)	0.14*** (4.20)	-0.00 (-0.05)	-0.37*** (-3.86)	0.03 (1.19)	0.00 (0.00)	0.13*** (4.09)	-0.25*** (-3.47)	0.17*** (3.60)	-0.20 (-1.42)	0.27** (2.46)	0.14*** (4.32)
Taxes	0.09*** (2.72)	0.04*** (3.09)	-0.04** (-2.53)	-0.20*** (-4.89)	-0.01 (-1.25)	0.07*** (4.31)	-0.03** (-2.05)	-0.09*** (-2.87)	0.49*** (23.98)	-0.23*** (-4.00)	0.09** (2.03)	0.16*** (11.60)
Revenue	0.96*** (167.07)	0.03*** (14.81)	0.02*** (7.23)	0.07*** (10.45)	0.01*** (2.75)	0.01*** (2.81)	0.01*** (5.04)	0.07*** (13.94)	0.05*** (14.44)	0.51*** (51.99)	0.18*** (23.72)	0.03*** (11.71)
Young	-161.75** (-2.11)	44.63 (1.45)	71.43** (2.02)	-29.62 (-0.33)	38.15 (1.53)	35.19 (1.04)	-42.63 (-1.45)	-280.30*** (-4.02)	-161.30*** (-3.55)	212.99 (1.64)	-51.11 (-0.49)	38.56 (1.28)
Retired	-33.41 (-0.30)	-59.82 (-1.33)	105.71** (2.05)	-144.12 (-1.10)	-26.01 (-0.71)	-231.67*** (-4.68)	-18.77 (-0.44)	-9.85 (-0.10)	-20.60 (-0.31)	741.33*** (3.90)	-372.44** (-2.46)	-193.57*** (-4.39)
Pop Density	0.39 (1.34)	0.51*** (4.44)	0.12 (0.89)	-0.35 (-1.05)	-0.09 (-0.97)	0.44*** (3.47)	1.11*** (10.08)	0.05 (0.17)	-0.10 (-0.60)	-1.09** (-2.23)	-0.20 (-0.52)	1.07*** (9.44)
Inhabitants	-0.06* (-1.76)	-0.06*** (-4.09)	-0.01 (-0.82)	0.05 (1.19)	0.01 (0.85)	-0.02 (-1.25)	-0.15*** (-10.74)	-0.03 (-0.82)	-0.00 (-0.05)	0.11* (1.70)	0.04 (0.84)	-0.14*** (-9.42)
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2199	2199	2199	2199	2190	2199	2199	2191	2199	2199	2199	2199

t-Statistics with robust clustered S.E. in parentheses, * 0.1 ** 0.05 *** 0.01

Table 7: Difference in differences – Bootstrapped standard errors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Expenditure	Administration	Security	Education	Culture	Social	Health	Transport	Economy	Services	Finance	Personnel
Reform	-5.35 (-0.26)	17.94 (1.01)	9.99 (1.03)	-76.29*** (-2.94)	-0.26 (-0.03)	-37.38** (-2.48)	-21.10** (-2.31)	-74.76*** (-3.97)	11.10 (1.26)	127.71*** (3.15)	25.74 (0.76)	0.35 (0.02)
Treatment	-57.26* (-1.96)	36.95*** (4.16)	28.73* (1.88)	-56.77* (-1.71)	-23.81 (-0.83)	-42.03* (-1.78)	45.48*** (4.30)	-75.65*** (-4.49)	43.40 (1.02)	61.24 (1.13)	-63.82 (-1.21)	58.07*** (3.24)
Diff-in-diff	-18.14 (-0.87)	-35.72*** (-2.88)	-12.71 (-1.40)	1.02 (0.04)	-15.47* (-1.78)	9.16 (0.70)	-13.59 (-1.39)	79.43*** (5.00)	24.24** (2.41)	-91.10*** (-2.63)	30.37 (0.98)	-32.30** (-2.48)
HHI	80.06** (1.99)	7.84 (0.50)	23.67 (1.38)	88.77** (2.09)	5.26 (0.41)	-33.20* (-1.92)	3.23 (0.20)	-59.76 (-1.42)	31.45 (1.39)	137.73** (2.18)	-134.90** (-2.46)	17.15 (1.29)
Single Party	-8.22 (-0.37)	-7.35 (-0.61)	-0.74 (-0.07)	-80.80*** (-3.39)	-2.56 (-0.33)	20.07** (2.48)	28.78*** (3.21)	3.47 (0.13)	-12.23 (-0.86)	-49.37 (-1.19)	96.57*** (3.19)	28.76*** (2.70)
Turnout	63.85 (0.97)	-53.37 (-0.83)	-111.91*** (-3.11)	-37.21 (-0.61)	5.68 (0.31)	81.90 (1.57)	170.15*** (4.69)	-99.87** (-2.27)	89.57** (2.32)	185.09 (1.49)	-136.61 (-1.57)	64.66 (1.41)
Lists	10.80 (1.42)	-2.91 (-1.16)	7.64*** (2.94)	17.60** (2.52)	0.87 (0.38)	3.96 (1.00)	14.91* (1.91)	-8.68 (-1.57)	-10.20** (-2.54)	-6.62 (-0.60)	-7.95 (-0.95)	16.10** (2.45)
SPO	-25.98 (-0.57)	-6.98 (-0.28)	20.14 (0.74)	-48.31 (-1.06)	-12.06 (-0.76)	57.39*** (2.84)	90.16 (1.36)	-57.86 (-1.36)	37.44* (1.96)	-273.92*** (-3.32)	225.60*** (3.25)	127.16*** (3.52)
FPO	-79.23* (-1.76)	12.80 (0.42)	29.63 (1.55)	11.08 (0.24)	15.23 (1.33)	162.78*** (6.78)	-97.60*** (-4.48)	-46.83 (-0.90)	155.71*** (5.38)	-216.78*** (-2.78)	-103.76 (-1.32)	176.44*** (8.91)
OVP	2.13 (0.07)	13.82 (0.62)	28.52* (1.91)	-20.23 (-0.53)	17.76* (1.83)	68.42*** (3.80)	-46.09*** (-3.07)	-108.40** (-2.45)	22.92 (1.56)	-125.33* (-1.86)	154.72*** (2.61)	51.67*** (4.46)
Divided	9.64 (0.20)	-44.89*** (-3.39)	2.24 (0.16)	49.48* (1.69)	-4.09 (-0.55)	-32.07*** (-3.02)	6.63 (0.44)	1.64 (0.07)	-70.48*** (-5.15)	101.51** (2.00)	1.20 (0.02)	-46.17*** (-5.38)
Incumbent	8.72 (0.58)	-11.87 (-1.18)	-16.95*** (-2.08)	-40.89** (-2.45)	-8.96** (-1.83)	17.95* (1.83)	-15.36 (-1.51)	39.55 (1.29)	8.54 (1.24)	-53.78* (-1.76)	85.22*** (3.71)	-17.44* (-1.70)
1 Year Before	12.99 (1.08)	2.77 (0.51)	6.49 (1.49)	-30.06*** (-2.69)	5.79 (1.62)	36.16 (1.43)	-3.24 (-0.63)	-7.11 (-0.92)	8.10 (1.04)	-3.47 (-0.13)	-1.93 (-0.09)	2.88 (0.41)
Election	17.29* (1.66)	5.67 (1.25)	1.78 (0.27)	-9.90 (-0.86)	5.57 (1.54)	29.73* (1.77)	10.89** (2.33)	-0.21 (-0.02)	8.11 (1.09)	-15.91 (-0.73)	-16.33 (-0.85)	14.86* (1.91)
1 Year After	0.46 (0.06)	-4.63 (-1.24)	3.76 (0.92)	12.62 (0.60)	-0.94 (-0.34)	22.27 (1.56)	1.50 (0.34)	8.70 (0.80)	1.14 (0.21)	-28.88 (-1.38)	-13.24 (-1.00)	2.48 (0.42)
Unemp.	-202.55*** (-2.69)	-39.08** (-2.52)	0.55 (0.03)	-83.88 (-1.57)	-8.55 (-0.85)	7.58 (0.36)	-35.72*** (-3.17)	-182.19** (-2.22)	30.65 (1.39)	64.43 (0.59)	41.42 (0.48)	25.14 (1.51)
Profit Shares	-0.05 (-0.32)	0.14*** (3.01)	-0.00 (-0.06)	-0.29*** (-2.91)	0.05* (1.93)	-0.01 (-0.13)	0.10*** (3.63)	-0.23*** (-2.79)	0.18 (1.40)	-0.22 (-0.79)	0.23 (1.14)	0.13*** (3.20)
Taxes	0.07 (1.36)	0.04 (1.39)	-0.04 (-1.54)	-0.19*** (-2.82)	-0.01 (-1.14)	0.07*** (3.52)	-0.04** (-2.41)	-0.09 (-0.97)	0.48*** (9.58)	-0.27** (-2.48)	0.11 (1.19)	0.13*** (7.18)
Revenue	0.96*** (79.34)	0.03*** (4.82)	0.02*** (3.70)	0.07*** (5.38)	0.00** (2.08)	0.01** (2.16)	0.02*** (4.69)	0.07*** (2.69)	0.05*** (4.98)	0.51*** (17.96)	0.18*** (8.72)	0.04*** (7.67)
Young	-172.12* (-1.67)	39.50 (1.24)	64.00 (1.85)	7.38 (0.06)	29.19 (1.17)	50.86 (1.05)	-71.72*** (-3.37)	-263.35*** (-2.22)	-149.31*** (-3.90)	175.92 (0.89)	-68.54 (-0.57)	64.71** (1.97)
Retired	18.69 (0.15)	-11.69 (-0.26)	104.18 (1.34)	58.66 (0.46)	-17.49 (-0.45)	-138.44* (-1.67)	-31.06 (-0.85)	12.79 (0.13)	-54.58 (-0.75)	548.90** (2.56)	-441.04* (-1.81)	-128.33** (-2.34)
Pop Density	-0.15 (-1.23)	0.20** (2.27)	0.07* (1.94)	-0.24** (-2.17)	-0.07* (-1.75)	0.28*** (3.13)	0.00 (7.14)	0.00 (0.04)	0.01 (0.13)	-1.42*** (-7.89)	0.33** (2.23)	-0.29* (-1.75)
Inhabitants	-0.01 (-0.49)	-0.03*** (-3.06)	-0.01** (-2.23)	0.02*** (2.87)	0.01** (2.18)	-0.01* (-1.65)	-0.09*** (-6.49)	-0.04*** (-3.76)	-0.01*** (-2.70)	0.16*** (9.26)	-0.03* (-1.91)	0.05*** (2.41)
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2634	2634	2634	2634	2625	2634	2634	2626	2634	2634	2634	2634

t-Statistics with bootstrapped (50 repetitions) S.E. in parentheses, * 0.1 ** 0.05 *** 0.01