Department of Economics

Essays on Empirical Political Economics

Riikka Savolainen

Aalto University

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Riikka Savolainen

Aalto University
School of Business
Department of Economics

Main dissertation advisor
Assistant Professor Manuel Bagues, Aalto University, Finland

Co-dissertation advisor
Research Fellow Matti Sarvimäki, Aalto University, Finland; Professor Juuso Välimäki, Aalto University, Finland

Opponent
Professor Kaisa Kotakorpi, University of Turku, Finland

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Abstract

Aalto University, P.O. Box 11000, FI-00076 Aalto www.aalto.fi

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Riikka Savolainen

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Abstract

This dissertation consists of three empirical essays each focusing on a different aspect of political behavior in Finnish municipalities. The second and the third essay utilize a novel data set, namely the voting advice application data from the municipal elections.

In the first paper, I investigate whether establishing an asylum center for refugees in a municipality is associated with voting result changes. My contribution is to document political reactions at immigrants at a very early stage of an immigration process. With the caveat that the statistical power is low due to the small number of asylum centers, the tentative conclusion is that there seems to be no impact on voting shares of the anti-immigration party on the municipality level or on the sub-municipality level. The results for the pro-immigrant party are less conclusive. I do not find evidence on the heterogeneous effects related to the cultural homogeneity.

In the second paper, I study whether a change in the local unemployment rate is associated with changes in candidate positioning in Finnish municipal elections. I find that when the unemployment rate is higher, politicians become more willing to prioritize employment over environmental protection, which is consistent with the existence of an environmental business cycle. The results are robust to different definitions of unemployment and are not driven by any single party.

In the third paper, I investigate whether there is an incumbency effect with respect to policy positions regarding the degree of redistribution or the public sector size in an regression discontinuity design set-up. I also study if tenure makes politicians choose more moderate policy positions or approach national party position averages, general regional position averages or regional party position averages. The results suggest that being in office does not change politicians' policy positions.

Keywords candidate positioning, environmental politics, information, incumbency effect, voting, voting advice applications

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Acknowledgements

It is a truth universally acknowledged, that a defense audience must be in want of entertainment and I hope that reading these acknowledgements will be as entertaining as writing them was.

Becoming an economist was not an obvious choice to start with since I was born a genuine humanist. In my late teens, I saw the light and began gradually drifting towards economics. Still, it was a bumpy road, not the least since I kept questioning if I could do it. Then, I had a eureka moment while writing my Master's thesis when I was telling to Professor Juuso Välimäki that I feel that I am just pretending that I do a thesis. With some empathy, he encouraged me by saying that, every now and then, he feels that he is pretending that he is a professor. I started to feel that I might have, after all, what it takes to become an economist. I have benefited from his insights ever since and very much appreciate his ability to see the crux of economic and political mechanisms, in addition to his sense of humour. Next, enter my second supervisor, Research Fellow Matti Sarvimäki, who taught me the important lesson of not to assume anything but to say "It's an empirical question". In addition, observing both of them in action has taught me a great deal about how to behave like an economist.

I have been also extremely lucky that Assistant Professor Manuel Bagues decided to move to Finland as having him as a supervisor has made my dissertation so much better and made me more rigorous in terms of identification, in addition to providing the Finnish economics with a valuable international flavour. Finally, Senior Researcher Janne Tukiainen's contribution into my supervision should not be forgotten and his innovative approach to research is truly special.

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Finally, my parents have always been there for me, not the least during the hard days of the 1990s depression. My father has always encouraged me to go onwards and upwards ("We all have only one life."), kindled my interest in economy and in politics and was the one who suggested that I should go to the business school ("Why don't go there so that you would at least learn to manage your own finances?") while my mother's comparative advantage does lie in unconditional love.

List of original essays

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Introduction

How do voters and politicians react at changes in their surroundings? This dynamic approach is interesting because politics does not take place in a vacuum and the society keeps evolving. The question has been most thoroughly studied in terms of how voters react at adverse economic events in terms of turnout, incumbency popularity or policy preferences (for recent evidence see e.g. Brunner et al. (2011), Charles (2013), Margalit (2013), Bechtel et al. (2014)).

While voter reactions have been more thoroughly studied, the main contribution of this thesis is to investigate whether politicians react at changes in their environment. To this end, it is very helpful to have access to an exceptional policy position data that includes repeated policy positions in two consecutive elections, between which the unemployment rate clearly increases. An unusual feature of the data is that it contains policy positions also from losing candidates, unlike the usual policy position data that only has observations on the winners, and this feature is important for the both second and especially the third essay.

The source for this data is the voting aid application of the Finnish public broadcasting service, Yle, and the purpose of a voting aid application is to provide voters with detailed information on the positions of the candidates. Finland has an open-list system in which voters must always choose an individual to vote for and in which the ballot order is alphabetical, not party-determined. Such a system incentivizes voters to familiarize themselves with the candidates.

The first essay focuses on the electorate. I study if establishing an asylum center for asylum seekers in a municipality is associated with changes in the voting results in Finland. My hypothesis is that the popularity of the two parties which have taken a stand on immigration, the Finns Party and the Greens, might change. Of these parties, the Finns Party has a negative stance against immigration while the Greens view it positively. Importantly, the asylum center placements are not under the jurisdiction of the municipal councils and their consent is not required for setting up one. A caveat is that the statistical power is not very strong due to the low number of the asylum centers set up.

The popularity of neither party seems to change once an asylum center is established. I also do a robustness check focusing on the sub-municipality voting results whereby I compare neighboring polling areas. Now the results are less conclusive for the Greens while I still fail to find an effect for the Finns Party. This approach complements the one focusing on the entire municipality: since the Finnish municipalities are very homogenous, the polling areas of a municipality share several common features, especially the adjacent ones. Finally, changes do not differ by the degree of cultural homogeneity or by the population size.

The focus of the second essay lies in how politicians react at the changes in the municipal unemployment rate. When the unemployment rate increases, candidates running in the municipal elections become more prone to prioritize employment over environmental protection. The impact is not very large but the result is robust to using alternative measures of unemployment and to controlling for candidates' own unemployment risk and holds across the political spectrum, even for the Greens. I also find that politicians who become less environmentally friendly are not electorally punished.

The result is in line with the survey evidence that shows that unemployment and weight given to environment by the electorate are negatively correlated in Finland. It also contributes to the evidence supporting the existence of an environmental business cycle (cf. Kahn and Kotchen (2010)).

Then, I investigate the existence of strategic behavior by assuming that the marginal candidates, who have the strongest incentive to respond to the electorate preferences, should target the predicted optimal policy position more closely. I use a pre-treatment variable, a candidate's popularity in the previous elections, in order to predict her election probability and find that my prediction for this probability is strongly correlated with the realized electoral outcome. However, I find that marginal candidates' responses do not differ from sure losers or sure winners, which is consistent with all of them being policy-motivated and sincerely changing their mind together with the rest of the population.

Finally, I check if the candidates respond more strongly to the unemployment rates of their own gender or own educational group as the evidence for possible catering to group interests. Here, I only find an effect for the candidates without a university degree who react more strongly to the unemployment rates of their own subgroup.

In the third essay, I investigate if political experience as a municipal councilor or a council deputy influences policy positions in the following elections utilizing a regression discontinuity design set-up. I compare the policy positions of close winners and close losers of the previous elections and

the main outcome variables consist of a redistribution index and a public sector size index. In addition, I consider the share of extreme positions as well as the distances from the national party average positions, the regional general average positions and the regional party average positions.

The approach is rather agnostic because, to the best of my knowledge, the impact of political experience has not been studied earlier, absent career concern models such as in the term limit literature. My ad hoc hypothesis is that being in office could make a politician more fiscally conservative (due to a better understanding of the fiscal constraints) or more moderate.

My running variable is the distance from the within-party vote share threshold. The research design is very cleanly identified especially for the 2012 policy outcomes. This is because not only am I able to check the balance of the usual observable pre-determined variables, such as the party affiliation, the gender and the age, but also the balance of the policy positions in the 2008 elections.

Generally, I fail to find an effect for any outcome variable and am able to rule out an impact larger than 20% of the standard deviation in the main estimations. Next, I consider effects by earlier political experience. There is some indication that deputy councilors without earlier experience become more aligned with average policy positions. However, this result is not fully robust as they become more aligned with general regional average positions in 2008 and with national party average positions in 2012 while other coefficients are positive but statistically insignificant. Finally, councilors without earlier political experience support a smaller public sector size in 2012 but there is no effect in 2008. This result could tentatively be related to the fact that the municipal fiscal constraints deteriorated over the term 2008-2012 due to the increasing unemployment rate but not over the term 2004-2008.

I also study if the effects differ by the evolution of the municipal fiscal position as proxied by the municipal unemployment rate as I hypothesize that the learning experience could differ by the constraints faced by a municipality. In addition, I consider the differences by the size of the municipality since the degree to which an ordinary resident is familiar with how the municipality works could be correlated with the size. As for the heterogenous effects, I find that councilors in the municipalities under a fiscal stress become more aligned with the average positions of their party and of their region but I fail to find other effects.

My conclusion is that, generally, political experience does not influence the policy positions, though there may be some context-dependence. The interpretation of the results is further complicated by the multiple-testing concerns since using a certain statistical significance level may result in some

false positives and a coefficient is erroneously thought be different from zero.

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1 How Policies Influence Voter Sentiments: Evidence from Asylum Center Placements

Riikka Savolainen, Aalto University School of Business[1]

Abstract:

I study whether establishing an asylum center for refugees in a municipality is associated with voting result changes in Finland. My contribution is to investigate the political reactions to immigrants at a very early stage of an immigration process. There seems to be no impact on voting shares of the anti-immigration party on the municipality level or on the sub-municipality level but the results for the pro-immigrant party are less conclusive. I do not find evidence on the heterogenous effects related to the cultural homogeneity.

JEL codes: J15, D72

Key words: asylum seekers, immigration, voting behavior

email: riikka.savolainen@aalto.fi

1.1 Introduction

Immigration has increasingly gained salience in politics. The growing emphasis could be due to economic factors, such as a heightened labor market competition or an impact on public finances, or to non-economic factors,

[1]I would like to thank Manuel Bagues, Pamela Campa, Ruixue Jia, Hannes Malmberg, Torsten Persson, Bei Qin, Tuukka Saarimaa, Matti Sarvimäki, David Strömberg, Janne Tukiainen, and participants in the 7th Nordic Econometric Meeting, the Finnish Economic Association Annual Meeting and the IIES brownbag for comments, and Veikko Pyykkönen from Finnish Immigration Service for sharing the data. Financial support from OP-Pohjola Group Research Foundation and Helsinki School of Economics Foundation is gratefully acknowledged. All the remaining errors are mine.

such as xenophobia, differing social norms or security concerns. It is hard to separate economic and non-economic factors once the immigrant stock is large enough that immigrants may have an impact on public finances and/or on labor market. Relative to many other Western countries, Finland has a modest amount of immigrants. Thus, the context I examine is particularly informative because I can document the political reactions to immigrants at a very early stage when large-scale immigration has not taken yet place.

This paper investigates if the popularity of pro- or anti-immigration parties changes when an asylum center for refugees is set-up in a municipality in Finland in 1990-2011. At the municipal level, I do not find evidence for any impact for the anti-immigration Finns Party nor for the pro-immigration Greens and am able to rule out an effect larger than 30% of the standard deviation. A limitation is that the statistical power is not very strong due to a small number of the asylum centers established. I also consider extreme right-wing niche parties and again fail to find an effect. Moreover, the extremist right-wing niche parties only existed since 2003 so the power is even weaker and the results are very imprecise.

As a robustness check, I redo the estimations at the sub-municipality level. There is still no impact on the Finns Party while the impact on the Greens is more mixed. Nevertheless, the coefficients are small even for the Greens.

An asylum center hosts asylum applicants who wait for an asylum decision. Asylum applicants are not allowed to vote while waiting. They are allowed to work with certain limitations but only about 2-4% of them have been working. Thus, there is no impact on the labor market equilibrium in practice. Because of the full state compensation, an asylum center does not incur expenses on the host municipality so there are no local public finance impacts. On the national scale, the marginal tax burden caused by the asylum applicants is small and spread evenly. Therefore, their economic impact should be so small that any impact of an asylum center establishment provides tentative evidence on the importance of non-economic reasons for the attitudes towards the humanitarian immigrants[2].

The Ministry of Interior Affairs is in charge of placing asylum centers. The main factor in determining the location of an asylum center is the availability of suitable vacant facilities. Importantly, the municipality consent is not necessary for establishing an asylum center, neither is it obligatory for an asylum center be run by a municipality. This fact should alleviate to some degree the concern that the asylum centers are endogenously placed in a

[2]Cf. Card et al. (2012) who find that compositional amenities of immigration are 2-5 times more important than the usually modest economic impacts.

way that is correlated with political attitudes, which is a common concern in studies dealing with the impact of immigration attitudes.

However, as a robustness test, I also study the sub-municipality impact, comparing polling areas within a municipality. The polling areas of the same municipality share the municipal council and most other factors, due to the high within-municipality homogeneity in Finland, so, in effect, the neighboring polling areas in the same municipality act as a control group. Once the Ministry of Interior Affairs has settled on a municipality, the exact final location should depend on the existence of suitable, vacant facilities. Because there is no abundance of such facilities, the within-municipality location seems exogenous to the political process.

I add to the growing literature that has examined political attitudes regarding immigration. In addition to descriptive survey evidence on the correlates of the immigration preferences (e.g. Mayda (2006), O'Rourke and Sinnott (2006)), there is evidence that a larger amount of immigrants can strengthen anti-immigration vote (Gerdes and Wadensjö (2008), Halla et al. 2012, Barone et al. 2014, Harmon 2014). A similar phenomenon appears also in the surveys (e.g. Dahlberg et al. (2012) or Crawley et al. (2013)). In comparison to the earlier literature that has focused on countries with a larger immigration stock, such as Italy (Barone et al. 2014) or Denmark (Harmon 2014) or, indeed, most Western European countries, my paper focuses on documenting political reactions at the earliest possible phase of an immigration process.

1.2 Institutional background

1.2.1 Finnish politics and immigration

Finland has four major parties. Over the past two decades, three main parties dominated: the leftist SDP, the conservative Center Party, and the conservative National Coalition Party, while, since 2008, the populist, anti-immigration Finns Party has increased in size remarkably. In addition, there are four smaller parties, the liberal Swedish People's Party, the conservative Christian Democrats, the liberal Greens, and the far left Left Alliance. Finally, short-lived niche parties have sprung up before several elections.

Of the Finnish established parties, the Greens can be considered most pro-immigration while the Finns Party is most anti-immigration (Klingemann et. al. 2006). However, both parties do have other themes as well, which makes them imperfect proxies for the immigration sentiment. Extremist right-wing niche parties have been campaigning since 2003 so they exist in

five elections out of eleven elections included in the panel.

Immigration became a salient topic in the Finnish debate in 1990. That year was the first time since the 1920s that saw an increased number of foreign refugees. Moreover, it was the first time in the history of Finland for the country to receive visibly different refugees, Somalis fleeing the collapse of the Soviet Union[3]. The first half of the 1990s saw also refugees from the former Yugoslavia while Iraqis, Kurds, and Afghanis joined in later.

1.2.2 Setting up an asylum center

An asylum applicant travels to a state independently and applies for an asylum at the border or at a police station. While an asylum application is pending, the Ministry of Interior Affairs places the applicant in an asylum reception center or in public housing. Usually, he is placed in the center with the largest number of vacant rooms and he is not allowed to choose the center himself. Due to the backlog in the asylum investigation, the wait for a decision may last more than one year. Those asylum applicants who get a residence permit often stay in the asylum center for some time until they find regular housing. Usually, they will move to urban municipalities, even if they would have initially been placed in an asylum center in a rural municipality. (Finnish Immigration Service)

Because asylum inflows are not state-controlled, in contrast to the quota refugee take-up, they may fluctuate heavily, as illustrated by Figure 1.1. Changes in the number of asylum centers depend on the changes in the asylum inflows. Thus, the Ministry of Internal Affairs may have to act very rapidly, which makes the existence of suitable, readily vacant facilities an especially important determinant of the asylum center location. Furthermore, not all the buildings are equally suitable: a typical asylum center has been a hotel or a boarding house or some other facility which is relatively easy to convert into a residential center[4].

Importantly, setting up an asylum center does not require a permission from the municipality as it is the Ministry of Internal Affairs that decides upon the location[5]. Furthermore, asylum centers are run by the state, by municipalities or by organizations (usually by the Finnish Red Cross) so it is not obligatory for an asylum center to be run by a municipality. The state compensates the party running the asylum center for all the expenses incurred.

[3]The first wave consisted of the Somalis who had been studying in Moscow during the Soviet regime while the later waves came directly from Somalia.

[4]Real examples include also former hospitals, prisons and holiday camps.

[5]The set-up contrasts with Folke (2014) who focuses on the quota refugee take-up, which is explicitly determined by the municipal council.

There are reported cases in which the establishment of an asylum center has taken the residents by surprise and there have even been considerable local protests and hostility. For example, a local village association and the Finnish Red Cross managing the Kontioniemi asylum center agreed to recommend the asylum seekers to stay away from the village football field in order to avoid conflicts (Helsingin Sanomat 2009).

Once an asylum center is established in a central location in an urban municipality, it is rarely closed. The peaks in the applicant inflow are levelled by establishing and closing asylum centers in more remote locations. Thus, most of the variation in the number of asylum center establishments comes from rural municipalities. This should sharpen the conclusions as the establishment of an asylum center in a rural municipality increases at once the percentage of immigrants much more than an equivalent center would do in an urban municipality. In addition, residents of rural municipalities are less accustomed to foreigners than those of urban municipalities.

The concentration of asylum centers on the urban municipalities might possibly be explained by the logistical convenience and by the larger availability of the suitable facilities. The main entry routes of the humanitarian immigrants are the Helsinki airport, the Helsinki port, and the Turku port[6] (for the locations see Figure 1.2 and Figure 1.3). The logistical convenience refers also to the location of the interpreters and of the migration officials who investigate the asylum application. However, as far as I know, the Ministry of Internal Affairs does not have an organized plan for locating the asylum centers.

Thus, the municipalities with an asylum center are not identical to ones without. The main differences are the size and the language structure, which are consistent with the fact that urban asylum centers are seldom closed down and that peaks are levelled with rural asylum centers. As a result, urban municipalities are overrepresented so the municipalities with an asylum center are much larger and have more residents with a foreign citizenship or a foreign language as their native language, and their residents have a higher educational level.

Also the political composition reflects the concentration of the asylum centers in the urban municipalities. The conservative, markedly rural Center Party is much less popular in the municipalities with asylum centers than in general. In contrast, the typical urban parties, the liberal Greens and the conservative National Coalition Party, as well as and the liberal Swedish People's Party are much more popular in those municipalities. Importantly, there is no correlation between the asylum center set-ups and the

[6]Both Helsinki and Turku are cities in the most densely populated part of Finland.

vote share of the anti-immigration Finns Party (Table 1.1). Of the two main parties which should channel the immigration-related vote, the Greens are markedly urban while the Finns Party does not have a clear bias towards urban or rural municipalities.

I also investigate associations with various demographic variables, such as the age structure, educational achievement of the municipality, native languages of the municipality residents, the number of foreign citizens (a stock variable), and various migration variables (flow variables). The only variable that had a substantial and statistically significant coefficient in all the specifications was the number of immigrants, which is most likely related to the correlation in the number of immigrants and the urban status of municipalities.

A typical asylum center has capacity for 150-200 residents with 10-15 employees. I have no data on the variation in the asylum applicant figures or exact capacities but, assuming each center always hosts 175 residents, in the municipalities with an asylum center, the population share of asylum applicants is, on average, 0.0106, with the standard deviation of 0.0137.

According to the data from the Finnish Immigration Service, there were 46 asylum centers established in 1990-2011. The number of asylum centers in Finland has increased from 9 in 1990 to 20 in 2011 (for the evolution see Figure 1.4). On average, there have been 15 asylum centers each year. The share of municipalities with an asylum center ranges from 2.8% (1990) to 6.25% (1999 and 2009-2011). The average share has been 4.6%.

1.2.3 Asylum application system

Asylum applicants are allowed to work after a three months' stay if they have a passport. If they do not have one, they are allowed to work after a six months' stay. No statistics have been systematically compiled about the asylum applicant labor market participation. According to a Finnish Immigration Service survey, only 2.8% of the asylum applicants were working in 2010. The labor market participation of the asylum applicants is limited by the lack of country-specific human capital, especially the language skills, and possibly also by the lack of education. The unemployment rate of humanitarian immigrants is high even after they have obtained the residence permit so it seems reasonable to assume that their labor market participation is too limited to influence the local labor market equilibrium. Asylum applicants are not allowed to vote.

The Ministry of Education and Culture compensates the municipalities for the expenses for the schooling for asylum applicant children. Any other incurred costs are paid by the state to the organization in charge of the

asylum center, whether a municipality or another organization. Thus, an asylum center should not burden the municipal finances in any case.

Asylum applicants are entitled to the income support, which is not paid by the municipality but by the state. As the income support level differs according to the family type and the number of children, it is hard to say something conclusive about how much a given asylum center generates extra revenue to the shops of the municipality. With the 2010 support levels, the total income support to all the residents of an asylum center should be bounded between 140,000 and 530,000 euros annually (Finnish Immigration Service). I argue that, even if we assume that all of the income support is spent in the local shops and none is saved or sent as remittances, the impact of this sum on the local aggregated economy is likely to remain small.

1.3 Data

1.3.1 Electoral data

The municipal-level election data comes from Statistics Finland. The data contains information on the votes received by each party, on the municipality-level electorate size[7] and on the number of the cast votes. This data covers the municipal elections in 1988, 1992, 1996, 2000, 2004, and 2008 and the parliamentary elections in 1991, 1995, 1999, 2003, 2007, and 2011.[8]

A municipality may contain several polling areas, up to 159 in Helsinki, the capital city of Finland. The polling-area-level election data comes from the Ministry of Justice and the public database of the Statistics Finland. The data covers the municipal elections in 2000, 2004, and 2008 and the parliamentary elections in 2003, 2007, and 2011.

In 2000-2011, about two hundred municipalities changed the number of their polling areas and, in some cases, also the polling area borders. I contacted all the municipalities with any polling area changes during this period in order to find out how the polling areas were changed[9]. Usually, two or more polling areas have been merged together because of a decreasing population.

Next, I formed an artificial panel in which the former real polling areas are considered to have belonged to this artificial polling area since the first

[7] Asylum applicants are not allowed to vote and, even after obtaining the residence permit, must wait for some years in order to be able to vote in the municipal elections. Only citizens are allowed to vote in the parliamentary elections.

[8] I exclude the 16 municipalities of the autonomous Åland because its political system is not fully commensurable to the rest of Finland and no asylum center has been placed there.

[9] GIS data on the polling area limits is not available.

year of the panel, 2000. The polling area changes have not been clear-cut in all cases in the sense of merging two or more polling areas into one. Instead, some polling areas have been divided between the neighboring ones. If a polling area was divided equally between two neighboring polling areas, I randomly chose which of these two neighboring areas it belongs to when constructing the artificial polling area. If a larger part of a polling area was merged into a certain neighboring area, I consider all of the divided polling area to have belonged to that neighboring area. In a few cases, the changes were so fuzzy that I created a large artificial polling area including all the concerned polling areas.

1.3.2 Asylum reception center data

I have the municipal-level data on asylum reception centers from the Finnish Immigration Service since 1990 when a medium-scale asylum inflow began. The data contains information on which municipality a center is or was located in, on the organization in charge of the center and on the opening date and, if the center has been closed since, on its closing date.

In the municipality-level data, there is a dummy variable which equals one if an asylum center had been set up in a municipality within two years from the elections. In the polling-area level data, there is a dummy variable which equals one if an asylum center was established in the municipality since the previous elections.

1.3.3 Demographic and unemployment data

The municipal-level data on demographic variables comes from Statistics Finland and includes the population and the number of the municipality residents who have a domestic or foreign language as their native language. The data on the educational achievement classifies the municipality residents according to the highest degree achieved. The data on the age structure divides the municipality residents into people who are younger than 15 years, people who are older than 64 years, and people who are 15-64 years old. These data consist mostly of stock variables

The migration data consists of flow variables. There is data on the between-country immigration into a municipality. These immigration figures include also people whose previous official residence was abroad but who may have, in fact, been living in Finland for a while, such as asylum applicants. As long as an asylum applicant's case is pending and he does not have an official residence in Finland, he is not included in the data. The speed of obtaining the residence has varied depending on the process-

ing backlog. In addition, there is data on the within-country migration into and out from a municipality.

The municipal-level unemployment rate data is calculated by dividing the number of the unemployed with the number of the municipality residents aged 15-64 years[10]. I use the age-based data as the municipal-level data on the labor force size exists only since 2005. I use the number of the municipality residents aged 15-64 years even from 2005 onwards in order to maintain comparability across the years.

1.4 Results

First, I consider if setting up a new asylum center is associated with changes in voting results at the municipal level. I do the estimations only for the parties which have taken some stand with respect to immigration and especially humanitarian immigration. The Finns Party is anti-immigration while the Greens are pro-immigration.

I estimate the following equation:

$$\text{voteshare}_{pmt} = \alpha + \beta_p NEWASYLUM_{mt} + \gamma_t + \delta_m + \epsilon_{pjt} \tag{1.1}$$

in which the dependent variable is the vote share of party p in the municipality m in the year t. $NEWASYLUM_{mt}$ equals one if an asylum center is established in the municipality within two years before the elections.

I do the estimations only for the parliamentary elections because there is not enough variation for estimating the effect on the municipal elections as only a few asylum centers were established within two years before the municipal elections. However, I believe that the parliamentary elections provide more interesting results because it is the parliament that decides on the general immigration policy, which may influence the total number of asylum applicants. In contrast, a municipality council has much less authority as it can only influence the local reception policies for integrating the asylum seekers.

When an asylum center is established, neither the Greens nor the Finns Party become more popular (Table 1.6). The coefficient on the impact on the extreme right-wing niche parties was insignificant in all cases (Table 1.7). However, they have existed only since 2003 so there is not very much data to base the estimations on. All the results are similar when accounting for an existing asylum center.

[10]This definition corresponds to the one used by Statistics Finland for the working age population.

There could be heterogenous effects related to differing preferences for cultural heterogeneity. Urban residents could have a more pronounced taste for cultural heterogeneity[11] so the municipality size is a proxy to the preferences. Therefore, I include interactions to see if the effect differs with respect to the municipality size or to the ethnic homogeneity. A municipality is considered to be small if it has less than 10,000 residents, while the mean population is 16,100. A secondary proxy for the preferences is the existing cultural heterogeneity. An ethnically homogenous municipality stands for a municipality with less than 0.84% residents having a foreign citizenship[12].

In no specification do I find an effect on the vote share of Finns Party or Greens (Table 1.8), which provides tentative evidence for the lack of heterogenous effects. However, the evidence is not very conclusive because a large majority of the Finnish municipalities is small and, even at the time of writing, almost all of Finland is ethnically very homogenous.

1.4.1 Robustness tests

Even though the consent of the municipal council is not required for setting up an asylum center, the Ministry of Interior Affairs might still locate asylum centers in the municipalities in a way that is correlated with the change of the sentiment towards the immigrants. In addition, the earlier results might be weak because any impact might be salient only in a small area. The Finnish municipalities usually cover a large area and have a low population density and quite a poor public transportation system. Hence, even a strong local impact may not be felt in the more distant areas of a municipality.

The sub-municipality-level data enables me to compare polling areas within a municipality, which should alleviate the two concerns discussed in the previous paragraph. All the polling areas share the same municipal council. Moreover, there is little within-municipality heterogeneity in the Finnish municipalities in terms of socio-economic characteristics so also the other factors are generally common to the entire municipality.

The baseline estimating equation is as follows:

$$\text{voteshare}_{pit} = \alpha_p + \beta_p NEWASYLUM_{jt} + \gamma_t + \delta_m + \epsilon_{pit} \tag{1.2}$$

[11] Cf. Mayda (2006) who finds that living in a rural area is associated with a more anti-immigration stance.

[12] The mean share of foreign citizens is 0.84%

in which the dependent variable is the vote share of party p in the polling area i in the elections in year t. Here, $NEWASYLUM_{jt}$ groups together a polling area i containing a newly established asylum center as well as all the adjacent polling areas in order to increase the power. It equals one if an asylum center has been set up between the elections in year t and the preceding elections.

With more observations, I can now do the estimations even for the municipal elections but still find no effect for the Finns Party and the same result holds at the parliamentary level. After the asylum center establishment, the popularity of the Greens in the parliamentary elections increases with 1.5 percentage points while it decreases it in the municipal elections with 1.2 percentage points (Table 1.9).

Additional estimations consider separately the impact of a new asylum center in the same and neighboring polling areas:

$$\text{voteshare}_{pit} = \alpha_p + \beta_p NEWASYLUM_{it} + \delta_p NEWASYLUM_{nt} + \gamma_t + \delta_m + \epsilon_{pit} \tag{1.3}$$

Now, $NEWASYLUM_{it}$ equals one if an asylum center has been set up in a polling area while $NEWASYLUM_{nt}$ is the dummy variable for an asylum center establishment in a neighboring polling area, both since the previous elections.

Again, there is no impact on the Finns Party or the Greens (Table 1.10). Moreover, the Wald test fails to reject the null hypothesis of the equality of β_p and δ_p, which holds both for the Finns Party and the Greens. The lack of a differential impact is consistent with the interpretation that there is no overall effect.

An alternative way to study robustness is to investigate if there is a placebo treatment so that the outcome is influenced by something that is not supposed to influence it. To be more precise, I study if a future asylum center establishment can be used to predict past vote shares:

$$\text{voteshare}_{pmt} = \alpha + \beta_p NEWASYLUM_{m,t+1} + \gamma_t + \delta_m + \epsilon_{pjt} \tag{1.4}$$

which is otherwise identical to (1) except that $NEWASYLUM_{m,t+1}$ equals one if an asylum center has been set up within two years after the elections.

In the main specification, I consider the placebo treatment in the parliamentary elections at the municipal level and I find no placebo effect. A new asylum center established after the parliamentary elections is not as-

sociated with the higher popularity of the anti-immigration party in the preceding elections (column (1) in Table 1.11) but there is a small negative association with the popularity of the pro-immigration party (column (2) in Table 1.11). However, it is significant only at the 10% level and no such association exists in the additional specification at the municipal level (column (4) in Table 1.11).

In this additional specification I also study the placebo treatment in the municipal elections even though the earlier results in which I estimate (1) only contain the parliamentary elections. My purpose is to address the concern that the municipal-specific party popularity might influence the asylum center locations but I find no placebo effect (columns (3)-(4) in Table 1.11).

At the sub-municipality level, the coefficients of a placebo treatment are insignificant for the Finns Party but significant for the Greens (Table 1.12). A caveat is that this result is driven by a single election, the municipal election in 2008, as almost all of the variation comes from the asylum centers set up between the 2008 municipal elections and the 2011 parliamentary ones.

Finally, even though asylum applicants do not burden the municipal finances due to the state support, they might be perceived to do so[13]. In order to study the robustness of the results to this perception, I divide the municipalities into those with the constrained fiscal resources and others. I use the change in the municipal unemployment rate as a proxy for the evolution of municipal finances. There is no other variable describing the evolution of the local economy that would be comparable across all the years in the panel because a big reform in the regulatory framework in mid-1990s makes the fiscal data before and after extremely hard to compare.

The unemployment rate seems to be a reasonable measure for the state of municipal finances because the income tax is the most important revenue source of the municipalities. Furthermore, it should not be confounded by the labor market competition by the humanitarian immigrants because, even after obtaining the work permit, their unemployment rate is very high. I define a substantial increase in the unemployment rate as 2.5%, which approximately equals the mean plus one standard deviation.

Including the interaction term with the unemployment rate change still does not change the results (Table 1.13). Hence, I conclude that the results are not driven by the fiscal burden concerns.

[13]Cf. Malchow-Møller et al. (2008) who find that it is the perception of the economic consequences of immigration rather than the actual economic position that predicts the attitudes towards immigration.

1.5 Conclusions

The results suggest that establishing an asylum center is not associated with the vote share changes of the anti-immigration party, the Finns Party, at the municipality or sub-municipality level. The results are more mixed for the Greens as there are some specifications with statistically significant coefficients, even though their political significance is small. There do not seem to be heterogenous effects with respect to the cultural homogeneity either. However, the statistical power is not very large due to the low number of asylum centers caused by a small number of asylum seekers.

In such an early phase, the local positive or negative economic are so small that any impact should be caused by non-economic factors. With this small amount of humanitarian immigrants, they do not seem to matter.

A limitation is that, besides immigration, both the Finns Party and the Greens have other salient policy themes as well. Further research could utilize the emergence of the candidates with the immigration as their main theme since the 2011 parliamentary elections, which would sharpen the analysis. In addition, the Finnish Migration Office data becomes much more extensive since 2010, including the data on the total number of the asylum seekers and their nationalities on the daily basis. This data could be used to document the future evolution of the immigration attitudes.

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Figure 1.1: The number of all asylum applications, including positive, negative and annulled in Finland

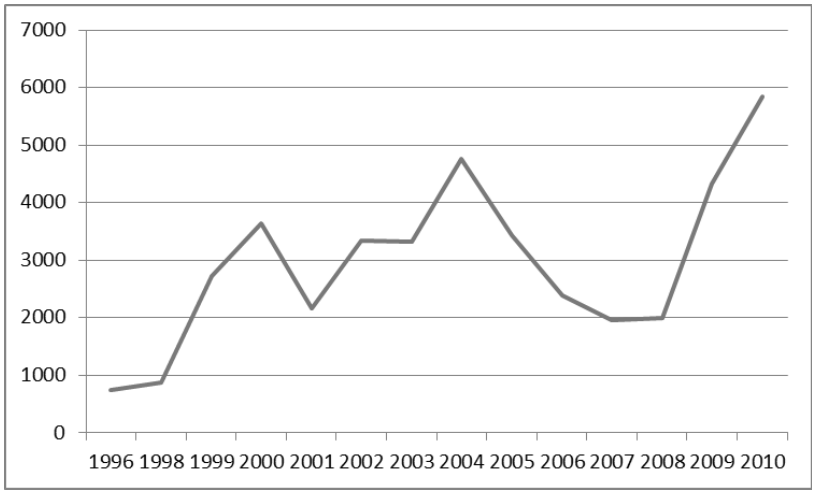

Figure 1.2: The asylum centers established in 1990-1998

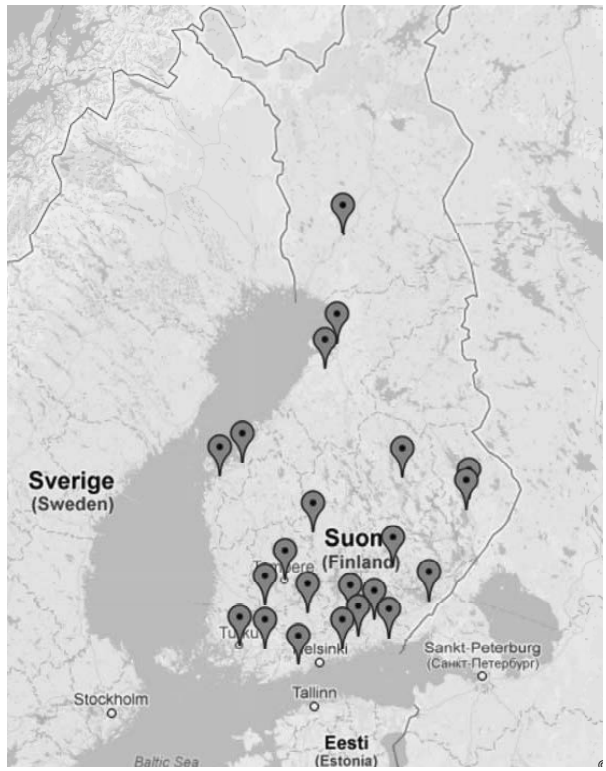

Figure 1.3: The asylum centers established in 1999-2011

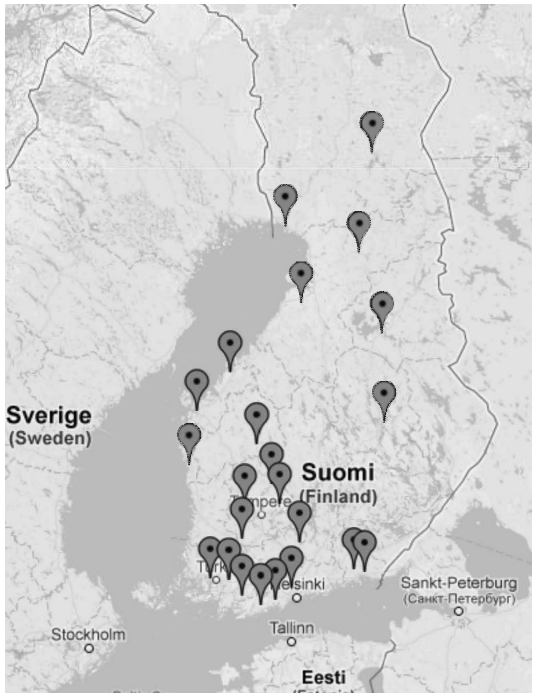

Figure 1.4: The number of asylum reception centers in Finland

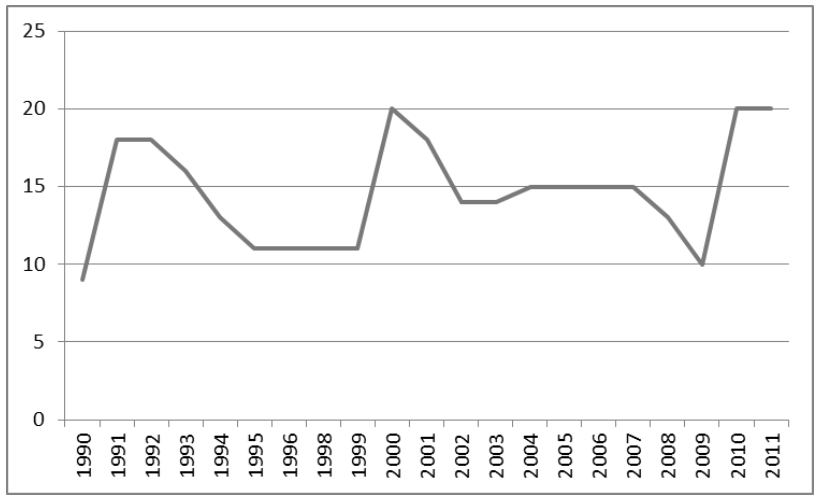

Table 1.1: The marginal effects from the probit estimation of the probability of a new asylum center on all parties

Dep. var.	Prob. of new asylum center
Finns Party	0.0195
	(0.013)
Greens	-0.052
	(0.027)
Swedish People's Party	-0.013
	(0.010)
Center Party	-0.037**
	(0.014)
SDP	-0.009
	(0.011)
National Coalition	0.002
	(0.011)
Left Alliance	-0.015
	(0.013)
Christian Democrats	-0.055
	(0.036)
Observations	7040

Note: The Social Democrats are leftist, the National Coalition is conservative, the Greens and the Swedish People's Party are liberal, the Christian Democrats are conservative, the Left Alliance is far left, and the Finns Party is populist. The explaining variables are the votes of the selected parties in the elections preceding the establishment of an asylum center. The marginal effects are at the median. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.2: Descriptive demographic statistics

Municipalities	With an asylum center	Without an asylum center
Population	93723.56	12506.56
	(136286.1)	(21761.74)
Unemployment rate	0.1263	0.1275
	(0.0504)	(0.0587)
Secondary school	0.3262	0.3156
	(0.0281)	(0.0308)
Low tertiary	0.0775	0.0603
	(0.0304)	(0.0296)
Middle tertiary	0.0427	0.0276
	(0.0238)	(0.0185)
High tertiary	0.0441	0.0229
	(0.0249)	(0.0161)
Ph.D.	0.0046	0.0016
	(0.0043)	(0.0023)
Age $<$ 15 yrs.	0.1764	0.1852
	(0.0293)	(0.0359)
15-64 yrs.	0.6606	0.6325
	(0.0367)	(0.0297)
Age $>$ 65 yrs.	0.1630	0.1822
	(0.0424)	(0.0493)
Net internal migration	-0.0019	-0.0032
	(0.0085)	(0.0094)
Internal migration gain	0.0479	0.0406
	(0.0145)	(0.0151)
Internal migration loss	0.0498	0.0439
	(0.0124)	(0.0122)
Observations	328	7032

5Note: Secondary school, low tertiary, middle tertiary, and high tertiary refer to the highest achieved degree. Internal migration is a flow variable and describes the migration within the country. All the other variables except population are shares of the residents. An observation is a municipality-year pair.

Table 1.3: Descriptive ethnicity statistics

Municipalities	With an asylum center	Without an asylum center
Foreign citizens	0.0204	0.0078
	(0.0146)	(0.0071)
Immigration	0.0059	0.0020
	(0.0048)	(0.0017)
Foreign language speakers	0.0229	0.0078
	(0.0196)	(0.0084)
Observations	328	7032

Note: Foreign citizens is a stock variable while immigration is a flow variable. Speakers of other languages refer to people with a foreign native language. An observation is a municipality-year pair.

Table 1.4: Vote shares of the main parties on the municipality level

Municipalities	With an asylum center	Without an asylum center
Nat. Coalition Party	0.1845	0.1471
	(0.0819)	(0.0872)
SDP	0.2263	0.1890
	(0.0907)	(0.0960)
Finns Party	0.0418	0.0455
	(0.0682)	(0.0688)
Center Party	0.2028	0.3777
	(0.1540)	(0.1826)
Greens	0.0661	0.0302
	(0.0487)	(0.0300)
Swedish People's Party	0.1009	0.0408
	(0.2169)	(0.1458)
Christian Democrats	0.0307	0.0379
	(0.0197)	(0.0380)
Left Alliance	0.0988	0.0918
	(0.0628)	(0.0763)
Observations	169	3351

Note: An observation is a municipality - election year pair. The Social Democrats are leftist, the National Coalition is conservative, the Greens and the Swedish People's Party are liberal, the Christian Democrats are conservative, the Left Alliance is far left, and the Finns Party is populist.

Table 1.5: Vote shares of the main parties on the polling area level

	Asylum center in the polling area	Asylum center in the polling area or neighboring area	No asylum center
Nat. Coalition Party	0.1797	0.1864	0.1751
	(0.0725)	(0.0834)	(0.1106)
SDP	0.2463	0.2294	0.2006
	(0.0793)	(0.113)	(0.1086)
Finns Party	0.0716	0.0697	0.0535
	(0.0982)	(0.0921)	(0.0782)
Center Party	0.2036	0.2225	0.2751
	(0.1647)	(0.1816)	(0.2188)
Greens	0.0914	0.0926	0.0609
	(0.0782)	(0.0931)	(0.0642)
Swedish People's Party	0.0167	0.0258	0.0683
	(0.0451)	(0.0844)	(0.1861)
Christian Democrats	0.0343	0.0325	0.0418
	(0.0258)	(0.0306)	(0.04)
Left Alliance	0.1161	0.1071	0.0886
	(0.0806)	(0.0688)	(0.0772)
Right-wing niche parties	0.0091	0.0047	0.0019
	(0.0231)	(0.0142)	(0.005)
Observations	62	329	13369

Note: The Social Democrats are leftist, the National Coalition is conservative, the Greens and the Swedish People's Party are liberal, the Christian Democrats are conservative, the Left Alliance is far left, and the Finns Party is populist. Because there were no right-wing niche parties running in the elections in 2000 and 2008, the respective observation numbers for them are 43, 224, and 8911. An observation is a polling area - election year pair.

Table 1.6: The main results: vote shares in the parliamentary elections

Dependent variable	Finns Party		Greens	
New asylum center within	-0.004	0.001	-0.001	0.001
2 years before the elections	(0.011)	(0.011)	(0.004)	(0.004)
Controls		X		X
Observations	1920	1920	1920	1920
R-squared	0.89	0.89	0.79	0.80

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. Other control variables are share of municipality residents with a foreign native languages, the share of immigration into the municipality in the given year, the unemployment rate, age structure variables, and variables on the educational achievement. All the specifications control for municipality and year effects. An observation is a municipality - election year pair. The standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.7: The pooled parliamentary and municipal elections for right-wing niche parties

Dep. var.	vote share of right-wing niche parties	
$ASYLUM_{t-1}$	-0.001	-0.002
	(0.004)	(0.002)
Year effects	No	Yes
Observations	1280	1280
R-squared	0.58	0.67

Note: Right-wing niche parties existed only in elections 2003, 2004, 2007, 2008 and 2011. An observation is a municipality - election year pair. All the specifications control for municipality effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.8: The interaction effects and the impact on Finns Party' and Greens' vote shares in the parliamentary elections

Dependent variable	Finns Party	Finns Party	Greens	Greens
New asylum center within 2 years before the elections	-0.007	0.010	-0.001	-0.001
	(0.008)	(0.018)	(0.005)	(0.005)
New asylum center within 2 years before the elections	0.022		0.005	
* small municipality	(0.026)		(0.006)	
New asylum center within 2 years before the elections		-0.022		0.006
* ethnically homogenous		(0.022)		(0.006)
Small municipality, number of for. language speakers	X		X	
Ethnic homogeneity		X		X
Observations	1920	1920	1920	1920
R-squared	0.89	0.89	0.80	0.80

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. "Small municipalities" have a population of less than 10,000 residents. Less than 0.84% residents are foreign citizens in "ethnically homogenous" municipalities. All specifications control for the municipality and year fixed effects as well as for the age structure, unemployment rate, educational achievement and immigration into the municipality. An observation is a municipality - election year pair. The standard errors are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.9: Polling area level results

Dep. var.: Vote shares of	Finns Party, parl. elections	Finns Party, munic. elections	Greens, parl. elections	Greens, munic. elections
New asylum center	0.008	0.003	0.015**	-0.012*
since the last elections	(0.011)	(0.003)	(0.005)	(0.005)
Observations	6716	6715	6716	6715
R-squared	0.76	0.29	0.49	0.54

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. All the specifications control for municipality and year effects. An observation is a polling area - election year pair. Standard errors clustered at the polling area level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.10: The pooled parliamentary and municipal elections in 2000-2011, polling area level

Dep. var.	Finns Party		Greens	
New asylum	0.004		-0.001	
	(0.006)		(0.003)	
New asylum$_i$		0.014		0.002
		(0.019)		(0.008)
New asylum$_n$		0.002		-0.001
		(0.006)		(0.004)
Observations	13431	13431	13431	13431
R-squared	0.73	0.73	0.5	0.5

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. "New asylum" equals 1 if an asylum center was established in a polling area or to a neighboring polling after the previous elections. "New asylum$_i$" equals 1 if an asylum center was established in a polling area after the previous elections. "New asylum$_n$" equals 1 if an asylum center was established in a neighboring polling area after the previous elections. All the specifications control for polling area and year effects. An observation is a polling area - election year pair. The standard deviations are in parentheses and are clustered at the polling area level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.11: The placebo test at the municipal level

	(1)	(2)
Dep. var.: Vote shares of	Finns Party Parl. elections	Greens Parl. elections
Center established less than 2 years after the election	0.002	-0.006*
	(0.006)	(0.003)
Observations	1,920	1,920
R-squared	0.889	0.792
	(3)	(4)
	Munic. elections	Munic. elections
Center established less than 2 years after the election	-0.004	-0.005
	(0.009)	(0.006)
Observations	1,600	1,600
R-squared	0.798	0.807

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. Both specifications control for municipality and year effects. An observation is a municipality - election year pair. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.12: The placebo test at the polling area level

Dependent variable:	Finns Party$_t$	Greens$_t$
New asylum center	0.002	0.014**
after the elections	(0.004)	(0.007)
Observations	11,192	11,192
R-squared	0.590	0.734

□

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. Both specifications control for municipality and year effects. An observation is a polling area - election year pair. Standard errors clustered at the polling area level. *** p<0.01, ** p<0.05, * p<0.1

Table 1.13: The interaction effects and the impact on Finns Party' and Greens' vote shares in the parliamentary elections

Dependent variable	Finns Party	Greens
New asylum center within 2 years before the elections	-0.000	0.000
	(0.014)	(0.004)
New asylum center within 2 years before the elections	0.004	0.001
* increasing unemployment rate	(0.021)	(0.011)
Observations	1920	1920
R-squared	0.89	0.80

Note: The Finns Party is anti-immigration. The Greens are pro-immigration. The increasing unemployment rate dummy refers to an increase in the unemployment rate of at least 2.5 percentage points. Both specifications control for municipality and year fixed effects, the high unemployment rate change dummy as well as for the age structure, educational achievement, immigration into the municipality, and the number of foreign language speakers. An observation is a municipality - election year pair. The standard errors are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

2 How Does Economic Crisis Influence Politicians' Environmental Policy Positions?

Riikka Savolainen, Aalto University School of Business[1]

Abstract:

I study whether a change in the local unemployment rate is associated with changes in candidate positioning in Finnish municipal elections. I find that when the unemployment rate is higher, politicians become more willing to prioritize employment over environmental protection, which is consistent with the existence of an environmental business cycle. The results are robust to different definitions of unemployment and are not driven by any single party.

JEL Codes: D72, H41, Q58

Key words: candidate positioning, economic voting, environmental politics

email: riikka.savolainen@aalto.fi

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2.1 Introduction

How do politicians and citizens react at deteriorating economic conditions? I document that politicians become more prone to prioritize employment over environmental protection when their constituencies are hit by increasing unemployment. This result is robust to various definitions of an unemployment increase and holds across the political spectrum. My research design builds on unemployment shocks experienced by Finnish municipalities in 2008-2012.

As for the channels, I investigate if the politicians who should stand to gain the most from changing their policy positions respond differently from the others. I hypothesize that the electorate starts to prioritize the economy over environmental protection if unemployment increases. Then, I predict politicians' electoral success based on a pre-treatment variable and divide them into three groups: sure losers, sure winners and marginal candidates. I also assume that if politicians only care about winning a seat, the marginal candidates should have the strongest incentives to adapt to the preferences of the electorate. However, I find that the marginal candidates do not behave differently from the others, which suggests that politicians are policy-motivated.

Finally, I consider catering to group interests by checking if politicians react differently to gender- or education-specific unemployment rates, depending on their own gender or educational achievement. I find mixed evidence as catering to group interests seems to hold only for the candidates without a university degree with respect to the unemployment rate of non-university graduates.

The earlier work on politicians' positions has generally been limited by data that only include elected politicians (e.g. the ADA scores in the United States or councilor surveys as in Ågren et al. (2006) or Fiva et al. (2013)). The policy position data comes from the online voting aid applications used in two consecutive elections. The purpose of a voting aid application is to provide voters with information. This data is exceptional because it includes policy positions also from losing candidates. In addition, the public and pre-electoral nature of this data makes it a better proxy for the campaign platforms than the policy positions once in office. In addition to the interesting data, Finland provides a useful setting to study candidate motivation because voters must always vote for an individual candidate. Thus, winning a seat depends on each candidate's individual behavior.

Voting aid applications are organized by the Finnish non-partisan media before the elections, and the candidates' positions can be seen by any user

free of charge. Filling in policy positions in a voting aid application is voluntary, but the popularity of voting aid applications among the voters and the free publicity that these applications provide are incentives for politicians to participate.

The voting aid application data includes the policy positions of 20,060 candidates and 20,734 candidates who provided them in the run-up to the Finnish municipal elections in 2008 and in 2012, respectively. I focus on an identical question related to a trade-off between employment and environmental protection asked in both years[2]. This question provides information on the relative weights of employment and environment during a period of increasing unemployment and a mining boom.

The time dimension allows me also to use the panel data of 7,844 respondents who replied to the questionnaire in both years. This panel data enables controlling for the candidate fixed effects, which should capture stable personality disposition and political skill, so that, in this subsample, I can see if politicians genuinely change their policy positions.

I contribute to the ample literature on economic voting and on the consequences of economic downturns by considering if adverse local economic conditions change politicians' electoral platforms. There is evidence that personal finances and economic conditions are related to the strength of environmental concern (Kahn and Kotchen (2010), Scruggs and Benegal (2012)), the support for redistributive policies (Brunner et al. (2011), Margalit (2013)) and the incumbent (Wolfers (2002)) as well as other political preferences (Fisman et al. (2014), Bechtel et al. (2014)).

My approach differs from a typical economic voting model that focuses on how voters react to economic fluctuations. Instead of political demand, I focus on political supply and document that politicians' platforms change as a response to an increase in the municipal unemployment rate.

In addition, the paper speaks to the empirical literature on environmental politics that mainly focuses on lobbying (e.g. Fredriksson et al. (2005)) or rent-seeking by politicians (Burgess et al. (2012), Jia (2014)) and abstracts from the electoral incentives (for the exceptions see List and Sturm (2006) and Fredriksson et al. (2011)). My focus lies on the context of differential electoral incentives in a mature democracy and I find evidence for a trade-off between environmental protection and economic growth even in the absence of lobbying or rent-seeking.

The paper also contributes to the literature on politician motivation in which politicians are typically motivated either by winning office or by policy outcomes. Office-motivated politicians are prepared to adapt to any

[2]"We should compromise on environmental protection if it increases employment."

preferences of the electorate in order to gain a seat (the seminal papers are Hotelling (1929) and Downs (1957)), while policy-motivated ones are inflexible in terms of their policy positions (for the reference papers see Besley and Coate (1997) and Osborne and Slivinski (1996)).

Empirically, it has been documented in a wide variety of settings that parties are motivated by policy outcomes (e.g. Lee et al. (2004), Meyersson (2014); see Folke (2014) for an analysis of party effects in a proportional representation system). However, the empirical evidence on whether individual politicians are policy-motivated is mostly confined to those circumstances in which a politician can quite independently decide upon a policy. Moreover, all the politicians belonging to a group are assumed to have the same ideal policy imputed from their gender, minority status etc., e.g. Washington (2008), Chattopadhyay and Duflo (2004) or Pande (2003), see however Ferreira and Gyourko (2014) who document no differential policy effect for U.S. mayors and hypothesize that the result is due to the intensity of electoral pressure.

An alternative way to study the motivation of individual politicians is to investigate if officeholders' behavior changes once they are no longer eligible for re-election and, hence, electoral pressure to adapt to the preferences of the electorate is gone (e.g. Besley and Case (1995)). This literature on term limits has a similar flavor to what I do, as it compares politicians who have stronger and weaker incentives to modify their platforms. My approach complements the literature on term limits by allowing for a continuous distribution of electoral incentives.

I investigate politicians' motivation in a novel way, examining if politicians running in the elections modify their policy positions differentially according to their predicted probability of being elected[3]. I assume that an increase in unemployment makes voters re-optimize their ideal degree of environmental protection by hardening their attitudes[4]. I assume that the politicians re-optimize, too, but differentially, depending on their electoral incentives. I hypothesize that policy-motivated candidates are drawn from the general electorate so they change the positions out of a conviction. In contrast, office-motivated candidates should not care about the policies per se but, rather, about gaining an electoral advantage, which I assume creates an incentive for them to consciously target the most popular policy position.

[3]Judging from politicians' campaigning behavior, their expectations of their election probability are consistent with my prediction.

[4]The unemployed survey respondents are more likely to prioritize the economy over environmental protection (Table 2.1). During the period studied in this paper, the Finnish national unemployment rate starts to increase in 2008 and is then closely followed by hardening attitudes, as seen in Figure 2.1, suggesting the existence of an environmental business cycle.

My hypothesis is that the predicted marginal candidates should target the predicted new most popular policy position more precisely than others. This is because such targeting may increase their chances with an order of magnitude, in contrast to the predicted sure winners or the predicted sure losers. In addition, I study the robustness of the results to the hypothesis that the sure winners may also have an incentive to behave strategically in order to access the most influential positions, either at the municipal or national level.

2.2 Institutional background

2.2.1 Political system

Finland uses the D'Hondt method and has open lists. Hence, the ballot order is not party-determined but, instead, the electoral success of each candidate depends on the total amount of the votes garnered by a list as well as her own rank in the list.[5] I utilize this structure when I predict the candidates' election probability in 2.6.2 Strategic behavior.

There are four major parties at the national level: the leftist Social Democratic Party, the conservative Center Party, and the conservative National Coalition Party, and the populist Finns' Party. In addition, there are four smaller parties, including the liberal Greens which are the only party for which the environmental issues are a major policy topic (Table 2.2 shows the correlates of the environmental policy positions and the party affiliations, see also Table A.1). The national government usually includes 3-6 parties all across the political spectrum.

There were 304 municipalities in Finland in 2012[6], each governed by a municipal council, the average size of which was 32 councilors in 2013 (Kuntaliitto)[7]. Since being a councilor is a position of trust, the councilors do not quit their jobs.

The monetary returns to Finnish municipal politics are small as the mean fee per session paid to municipal councilors was 70 euros in 2013 (Kuntaliitto). Kotakorpi et al. (2014) have documented that becoming a municipal

[5]The seat allocation depends on the candidates' comparative indices, which are calculated as follows: the candidate with the most votes within a list gets the total number votes of the list as her comparative index. The candidate with the second most votes gets one half of the most successful candidate's comparative index. The candidate with the third most votes gets one third of the most successful candidate's comparative index and so on. Finally, the seats are allocated to all the candidates of an electoral district in the descending order according to their comparative indices. The ballot order has no impact on the comparative indices.

[6]Excluding 16 municipalities of the autonomous area of Åland.

[7]http://www.kunnat.net/fi/tietopankit/tilastot/kuntavaali-ja-demokratiatilastot/valtuustokoko_2013/Sivut/default.aspx

councilor results in an increase of 1000€ in the subsequent annual earnings. Also campaigning expenditure seems to be very small in municipal politics[8]. Municipal politics is the main point of entry into national and European politics, as illustrated by the fact that only 21 out of the 200 members of parliament during the term 2011-2015 had not been municipal councilors before entering the parliament.

2.2.2 Voting aid applications

Voting aid applications are interactive questionnaires provided online by the non-partisan main media before the elections. The purpose of a voting aid application is to assist voters in choosing a candidate with similar policy preferences. Using them is free of charge for both candidates and voters.

The use of open lists in all the Finnish elections, which focuses the attention on individuals, makes the country a fertile ground for online voting aid applications[9]. Furthermore, Internet usage is widespread. For example, both in 2008 and in 2012, the voting aid application of the Finnish public broadcasting company, Yle, was visited about 700,000 times (Naalisvaara (2013)) while the Finnish population is about five millions.

Filling in a voting aid application questionnaire is not obligatory. The municipal-level median response rate in 2008 was 47.8 % of the candidates and, on average, the candidates who did fill in a voting aid application questionnaire received in total 56.2% of the votes of the municipality. The equivalent figures for 2012 were 47.2% of the candidates and 54.3% of the votes.

The candidates replying to voting aid application questions are more likely to be female and younger. They are probably more skilled and more ambitious politicians, as their total vote shares, within-party vote shares, and winning probabilities are higher. Incumbent councilors and members of parliament are slightly over-represented. Candidates from the conservative National Coalition and the liberal Greens are over-represented while candidates from the leftist Social Democrats, the Left Alliance, and the populist Finns Party are under-represented, which suggests that higher-income candidates may be over-represented. (See Table A.2-Table A.4 for the descriptive statistics.)

[8] According to the self-reported campaign expenditure figures provided by the voting aid application respondents, 82% of them spent 0-500€ in their campaign and only 771 respondents chose the industry as their most important source of external funding.

[9] When asked in surveys whether the voting decision is based on choosing a party or a candidate, the share of maintaining the focus on candidates has fluctuated between 42% and 56% since 1983 (Suomen vaalitutkimusportaali). Such survey data provides some tentative evidence that there is a non-negligible number of voters focusing on individual candidates.

The Yle voting aid application that is my data source is open only to the candidates for approximately three weeks during the pre-electoral period. During this period, the candidates may reply to closed-ended questions focusing on current policy issues and their replies are saved in a data base. While the response period is pending, each candidate has access only to her own replies, which can be modified during this time but not afterwards.[10] (Naalisvaara (2013))

Once the candidates' response period is over, the voting aid applications become publicly available. A voter can fill in the same questionnaire online and compare his replies to those of the candidates. If the voter finds more matches to his answers, he may infer the information that the candidates have similar views on specific policy issues. (Suojanen (2007))

In practice, most voters do not read every reply of every candidate because it would be too time-consuming[11]. Instead, they usually focus on the vote recommendations provided by the voting aid application algorithms and, at most, study the replies of their best matches in more detail. In essence, these recommendation algorithms match a voter to those candidates whose positions are most similar to his, making some assumptions on the voter utility function in order to define what accounts as similar.

2.2.3 Environmental politics and municipalities

The focus of this paper lies on the municipal-level trade-off between environmental protection and local employment. A municipal politician has a two-fold incentive to increase employment: it is an end in itself as well as a means to increase the municipal tax revenue by raising the income of the municipal residents. This is because almost all of the municipal tax revenue consists of the municipal income tax (Majoinen et al. (2008)).

The municipal decision-making power with respect to environmental issues is quite limited and is most notable in zoning (Mäkinen (2007)). Municipalities are significant land owners and can influence local business activities by deciding to whom they sell municipality-owned land plots and by being in charge of building the infrastructure needed by a plant or a mine.[12]

[10] The candidate-specific user names and passwords are passed on to the candidates via the parties' campaign offices while Yle also seeks to contact independent candidates. Yle provided technical assistance both in 2008 and in 2012, while the detailed instructions, the solutions to the most common technical problems, and the helpdesk contact information were attached to the user name and the password. (Naalisvaara (2013))

[11] The municipal-level median number of voting aid application repliers is 38 while the Yle 2008 voting aid application included 20 questions and that of 2012 had 30 questions. Thus, voters in a median municipality would have needed to read through 760 and 1140 policy positions in total, respectively.

[12] A municipality is tasked with granting the local environmental permits, mainly for

While a national organization, the Finnish Safety and Chemicals Agency, is in charge of granting a mining permit, municipalities may facilitate or complicate the process with less or more stringent zoning regulations. In addition, the relevant municipality must be consulted while a mining permit is being processed and it also has a right of appeal over the mining permits granted. (Pölönen (2012)) Several mines have been set up in recent years and they have created employment especially in high-unemployment municipalities (Paatsola (2010)). For example, there was at least one functioning mine in 36 municipalities in 2011. On the other hand, this mining boom has intensified discussion on the environmental risks of mining, such the water system pollution caused by the Talvivaara mine in the Northern Finland from 2013 onwards.

In the voting aid application that is my data source, besides choosing a policy position from the scale, candidates may also give free-form comments on their positions and I have access to these comments for the 2012 data. Typical comments on the environmental policy positions are related to the optimal size of local natural reserves, suitable stringency of environmental permits, desirability of establishing a mine or, in some cases, a nuclear power plant in the municipality, and permits provided for peat extraction.

The employment-first candidates tend to justify their stance by arguing that, at present, environmental protection is excessive, that tax revenue and employment are necessary for the well-being, or that the strong economy is a necessary prerequisite for environmental protection. However, few candidates explicitly refer to the municipal unemployment rate.

The candidates prioritizing environmental protection invoke the irrevocability of the environmental damage, especially with respect to the climate change. They may also justify their argument by appealing to the economic logic. Examples include statements that no trade-off between environmental protection and employment really exists or that the good quality of the local environment actually increases employment (e.g. through eco-tourism or renewable energy) or attracts tourists and migrants to the municipality. An additional way to promote environmental protection is to refer to an existing case of environmental damage.

The ambiguous comments argue that the technology will eliminate the trade-off or that the trade-off has to be settled on a case-by-case basis. Both sides invoke the rule of law. The employment-first candidates state that no extra effort is needed as long as the relevant laws are observed. In con-

animal shelters, crushing or rock excavation, and notifications that usually apply to gas stations in groundwater areas, small energy production plants and asphalt mixing plants. The national and regional environmental authorities are in charge of the remaining environmental permits. (Salminen (2014))

trast, the environmentalist candidates interpret the voting aid application statement in a way that implies a violation of existing environmental laws and argue that the legislation forbids any environmental damage anyway. In either case, however, using a legal argument to support one's case can be considered as an ambiguous justification because the environmental legislation does allow for some potential environmental damage as long as it is sufficiently limited and improbable.

2.3 Credibility of policy positions

The core assumption of the citizen candidate model is that the politicians cannot commit to their electoral promises. This is why politicians' own policy preferences are interesting since the preferences of the winner completely determine the policy outcome in the model. Would there be a full commitment, the electoral pressure would cause even policy-motivated politicians to choose the favorite policy position of the general population as their electoral platform and to adhere to that platform once in office. Thus, policy-motivated politicians with the full commitment and office-motivated politicians are observationally equivalent. How credible, then, are voting aid application policy positions? Why do the candidates spend time answering voting aid application questionnaires and why do the voters study the candidates' replies to the voting aid questions?

One solution is to assume that lying is so costly that most candidates do tell their true policy positions, as in Banks (1990). This interpretation is favored by the small median size of the Finnish municipalities where it is not uncommon for the voters to know many of the candidates in person. In addition, in larger municipalities, there have been cases in which the media has used voting aid applications as a source for stories about politicians' views (Hatakka (2009)). Furthermore, at least the voting applications of the Finnish public broadcasting company, which are my data source, are kept online at least until any next elections (Naalisvaara (2014)).

On the other hand, the costs of lying in Banks (1990) are driven by the voters following closely both the campaign platforms and the conduct in office and imposing a cost for a difference between the two. With proportional representation, accountability is not as strong as in a majoritarian system. Moreover, Banks' model places heavy informational requirements that probably hold only for the extremely salient policy topics.

Then, politicians could use the electoral platforms in order to find out how popular a policy position is, as in Harrington (1992). The crucial assumptions of Harrington's model are that the preferences of electorate are

not known and that a politician announcement does not change them. In the equilibrium, elections function as a gallup so it is reasonable to announce one's policy preferences truthfully. While parties no doubt study the popularity of politicians in order to learn more about the voters' preferences, this assumption is not attractive from a point of view of an individual politician because proportional representation complicates pursuing her favored policy position.

Finally, one can assume a varying degree of effort in office and full commitment, which results in credible electoral platforms, as in Callander (2008). His is a realistic model in the sense that it allows both policy- and office-motivated politicians to exist within the same framework. Office-motivated politicians are willing to adjust their positions in order to adapt to voters' preferences. In contrast, policy-motivated ones are more inflexible in terms of policies but work harder. In the Finnish context, the policy-motivated politicians would be interpreted as those who do not have further aspirations to enter national politics while the office-motivated ones would run in the municipal elections mainly in order to enhance their careers in national politics.

In Finland, being a municipal councilor is not a job but a position of trust. As a result, the optimal strategy for an average candidate may well be to reply to at least one voting aid application questionnaire in order to get free publicity but not to spend too much time on it, which suggests sincere positioning.[13] Thus, a full commitment and varying effort seem the most realistic assumptions in the present context.

2.4 Data

I use the data on the candidates' and parties' electoral results and the candidate-specific policy positions in the municipal elections 2008 and 2012 and combine these data sets to the municipality-level labor market and retirement data. Finally, I have a representative survey data, which is repeated cross-sections. I use this survey data in order to explore the voters' views as citizen replies to the voting aid questionnaires are not available.

The data on the candidates' policy positions consists of the replies of the

[13]For the most strategically thinking candidates, this strategy is further supported by the fact that voters mostly content themselves with the vote recommendation list provided by the voting aid application algorithm. Because the algorithms are trade secrets, they are not trivial to game. In fact, even the service providers have noted that the algorithms occasionally come up with strange final recommendations. (Kauppinen (2007)) The strategic behavior is further complicated by the fact that voter responses are not available, even afterwards. In addition, politician responses are fixed after the response period is over so that candidates cannot react at other candidates' responses.

municipal elections candidates to the voting aid application questionnaires of the Finnish public broadcasting company, Yle, and I use these replies as a proxy for their electoral platforms. The Yle voting aid applications include questions on various current topics relevant at the municipal level, almost all of them different in 2008 and in 2012. Only four questions were identical in 2008 and 2012, and two of these questions were country-specific[14].

I focus on a question which was identical in the municipal elections 2008 and 2012: "We should compromise on environmental protection if it increases employment.". I focus on this question because it is of interest beyond Finland.[15]

The response choices are "agree strongly", "agree somewhat", "disagree somewhat", and "disagree strongly". In addition, the option "don't know" was introduced in 2012. Since the voting aid application algorithm considers leaving a position empty and choosing "don't know" equivalent, I code the empty responses as if the candidate would have chosen "don't know". The response distributions were very similar in the two elections (Figure 2.2). Most of 7,844 candidates who reply twice do not change their environmental policy position across the years but, among those that do change, it is slightly more common to increasingly prioritize employment (Figure 2.3).

The data on the 2008 voting aid application is provided by the Finnish Social Science Data Archive while Yle provides the data on the 2012 voting aid application as an open data in its web site (Yle 2012). The electoral results containing the parties' vote shares in each municipality and the candidates' vote shares are provided by Statistics Finland.

In order to explore the voters' preferences, I use a nationally representative survey data, which is also provided by the Finnish Social Science Data Archive and originally collected by a Finnish think tank, Eva. This repeated cross-sections data is available at the provincial level. These surveys are conducted approximately at the biannual basis and are available since 1992.

The consecutive rounds of the survey data contain a time-invariant statement "I am willing to compromise on standard of living in order to alleviate pollution and environmental problems.". The respondents are asked whether they agree with the statement on a four-step scale, making the scale similar to the voting aid application scale. Since the statement focuses on a

[14] "Municipal user fees should be more progressive with respect to the income." and "If one of the parents is a homemaker, the family should not have a universal access to the municipal kindergarten."

[15] The other identical question that is not country-specific reads as: "The social welfare is too easily accessible nowadays." I find that unemployment increases are not associated with changes in the social welfare policy positions, possibly because the question is not related to an explicit trade-off involving employment.

trade-off between the economic and environmental benefits, it is comparable to the voting aid application statement on the trade-off between local employment and environmental protection.

The unemployment rate data is municipality-specific and provided by the Ministry of Employment and the Economy. It is based on the number of jobseekers, most of whom are unemployed, registered at the government employment and economic development offices. I define the unemployment rate as an average of the monthly unemployment rates of 12 months preceding the elections, October 2007 - September 2008 and October 2011 - September 2012, respectively. The municipal-specific unemployment rates clearly peak in 2009, right after the 2008 elections, and then start decreasing again but do not reach the level of 2008 (Figure 2.4, for the descriptive statistics see Table 2.3).

The more detailed data on unemployment is based on the Finnish Longitudinal Employer-Employee Data (FLEED). It is a linked employer-employee data for research purposes and is provided by Statistics Finland. It consists of a random sample of one third of 15-70 years old people living in Finland. Each year's sample has ca. 1,280,000 persons and I utilize the years 2007-2012.

Based on the FLEED data, I construct the following municipality-specific unemployment variables: the share of the male unemployed relative to the male labor force, the share of the female unemployed relative to the female labor force, the share of the unemployed with a university degree relative to the labor force with a university degree, the share of the unemployed without a university degree relative to the labor force without a university degree, and, finally, the share on the unemployment pension[16] and the share of entries to the unemployment pension relative to the municipal population.

The data source for the unemployment figures of FLEED is the same as for the data of the Ministry of Employment and the Economy, that is, the number of the jobseekers registered at the employment and economic development offices. The data on retirement is based on the registry data from the pension funds.

I also do a robustness test using the share of laid-off workers relative to the municipal labor force. The lay-off data is available at the annual level for each municipality since 2006 and is provided by the Ministry of

[16]The unemployment pension means continuing to draw an unemployment allowance until the old-age retirement age, even after the maximum eligibility period of 500 days is over. At present, this type of pension is available only to persons born in 1949 or earlier and is being phased out. An entry into unemployment retirement has been a favored method of laying off older personnel so an unemployment shock could credibly take this form as well, especially in those municipalities with a large proportion of older residents (for some evidence see Kyyrä and Wilke (2007)).

Employment and the Economy.

2.5 Results

2.5.1 Unemployment rate and environmental policy positions

First, I investigate if higher municipal unemployment is systematically associated with changes in the environmental policy positions and regress the policy positions on the municipal unemployment rate. The policy positions are scaled from zero to four[17] and a higher number implies a stronger willingness to prioritize employment over environmental protection. As the panel is of two elections only, nonlinear fixed effect estimation is challenging because of the incidental parameters problem. On the other hand, people with a certain kind of ideologies might be self-selected into a municipality and ideologies are rather time-invariant. Thus, it is safer to include fixed effects in order to better isolate the impact of the increasing unemployment rate, which is why my main specifications use a linear probability model.

For the descriptive purposes, I start by accounting only for the municipality-party and election year effects:

$$\text{policy position}_{impt} = \alpha + \gamma u_{mt} + \eta_{mp} + \beta_t + \varepsilon_{impt} \tag{2.1}$$

in which i is a candidate, m stands for a municipality, p represents a party, and t refers to an election year. The unemployment rate of the pre-electoral 12-month period is u_{mt}. A one-percentage-point rise in the unemployment rate is associated with an increase of the employment-first replies with 0.05 standard deviations (column (1) in Table 2.4)[18]. For comparison, the median municipal unemployment rate rose from 8.1 percentage points to 9.5 percentage points from 2008 to 2012. This result provides some descriptive evidence for an increasing weight placed on employment at the expense of environmental protection.

The increasing overall emphasis on employment in those municipalities with higher unemployment might come about through a composition change so that the employment-first candidates are more likely to run or to use a voting aid application. Alternatively, it could be due to a policy position shift among the politicians so that, for a fixed set of the candidates, their

[17] 0 = "disagree strongly", 1 = "disagree somewhat", 2 = "don't know" or empty, 3 = "agree somewhat", 4 = "agree strongly".

[18] One standard deviation in the policy positions is 1.17.

policy position does depend on the local unemployment rate.

In order to examine policy position shifts, I focus next on 7,844 candidates who replied to the voting aid application both in 2008 and in 2012. In this subgroup, I can study if a higher municipal unemployment rate changes the policy positions by controlling even for the candidate effects, which should cancel out the stable personality disposition and the time-invariant political skill[19]. Thus, I redo the estimation equation (1) for this subset, now controlling for the candidate effects, δ_{im}, instead of municipality-party effects, and regress the candidates' policy positions on the municipal unemployment rate, u_{mt}:

$$\text{policy position}_{impt} = \alpha + \gamma u_{mt} + \delta_{im} + \beta_t + \varepsilon_{impt} \tag{2.2}$$

Now, a one-percentage-point unemployment rate increase makes the employment-first replies more popular by 0.07 standard deviations (column (2) in Table 2.4). Thus, if anything, the effect is stronger than when considering all the respondents so the mere composition change does not explain the earlier result. There is a real policy position shift in favor of a greater weight placed in employment at the expense of environment.

The result is not driven by any single party as it is robust to considering separately conservative, leftist or Green candidates, though the effect is weaker and less precise for the Greens (columns (3)-(5) in Table 2.4). The results are qualitatively similar and precise when considering alternative measures of the unemployment shock, such as the logarithm of the unemployment rate, any new unemployment spells, layoffs or entries into the unemployment pension (Table A.5)[20]. The results are also robust to dropping out empty responses and "don't know" responses.

Finally, in order to assess the quantitative importance of the position change, I investigate if there are more respondents who agree strongly or somewhat with the statement "We should compromise on environmental protection if it increases employment." when municipal unemployment rises. Thus, I regress their relative share on the municipal unemployment rate:

$$\left.\frac{\text{number of employment-first respondents}}{\text{number of all respondents}}\right|_{mt} = \alpha + \gamma u_{mt} + \delta_m + \beta_t + \varepsilon_{mt} \tag{2.3}$$

[19] I merge the candidate data by matching names, ages, and municipalities across the years because I do not have the candidates' social security numbers. By definition, I can match only the candidates who did not switch municipality in between the elections so the candidate effects are perfectly collinear with the municipality effects and I cannot control for both the candidate and municipality effects separately.

[20] The share on the unemployment pension does not influence the policy positions.

in which m refers to a municipality and t stands for an election year in this municipality-level estimation equation. A one-percentage-point unemployment rate increase implies that the share of employment-first candidates increases 2.5% (column (1) in Table 2.5).

Looking more closely at the party affiliations, the share of employment-first candidates increases among the two large conservative parties, the Center Party or the National Coalition as much as it does among all the candidates, 2.4% (column (2) in Table 2.5). This result is interesting because the Center Party is the most common dominant party in the municipal councils, even commanding an absolute majority in various municipalities. The main result is driven by the conservative candidates as there is no statistically significant effect on leftist or Green candidates (columns (3)-(4) in Table 2.5).

2.5.2 Robustness checks

The previous results on how higher unemployment makes politicians less prone to support environmental protection might be biased because of reverse causality or omitted variables. Reverse causality from a candidate's employment-first policy position to the municipal unemployment rate is highly improbable. This is because a municipality has a limited means of influencing employment substantially with a more strict or lax environmental policy, even if the municipal council were to act in unison. Then, an individual candidate has an even more limited means of bringing about large employment changes.

As for the omitted variables, the most plausible case is an unemployment shock or a fear of an unemployment shock experienced by a candidate[21] if it is positively correlated with the municipal unemployment rate increase. The possible municipality-level omitted variables include industrial activities affecting both environmental attitudes and employment or the public sector responses that are correlated with environmental attitudes.

Finally, given that not all the candidates do reply to voting aid application questions and that the replier shares are heterogenous across the municipalities, I study robustness of the previous results to weighting them with the number of repliers from each municipality. I also regress the probability of a policy position change on the change in the municipal unemployment rate using a non-linear specification.

[21] Cf. Geishecker and Siedler (2012) who find that mere job loss fears are enough to increase support for the far right. In the official candidate lists, 0.2% of the candidates announced that they were unemployed either in 2008 or 2012. There is no information if being unemployed is underreported or if there were really so few unemployed candidates.

2.5.2.1 Personal unemployment shock

First, I study the robustness of the results to the own unemployment risk of the politicians. After all, being a municipal councilor is not a job and is not sufficiently well-paid in order to compensate for the loss of a job.

I construct a pre-treatment variable based on the candidates' announcements on their occupation and/or degree in the official candidate lists in the 2008 elections. I divide the candidates into occupational categories and allocate these categories as having a high or low unemployment risk according to their probable exposure to business cycles. I define manufacturing, engineering, construction, agriculture, forestry, and various private service industries[22] and being unemployed as risky occupational categories while excluding those candidates who are municipal employees.

Then, I consider the interaction of the pre-treatment occupational status and the municipal unemployment rate:

$$\begin{aligned} \text{policy position}_{impt} &= \alpha + \gamma u_{mt} + \zeta u_{mt} * \text{riskoccupation}_{i,2008} \\ &\quad + \delta_{im} + \beta_t + \varepsilon_{impt} \end{aligned} \tag{2.4}$$

The variable $\text{riskoccupation}_{i,2008}$ refers to the exposure of the pre-treatment occupational status to economic fluctuations. I find that the results are robust to including the occupational status (column (1) in Table A.6), which suggests that the policy position change is not driven by the candidates' own unemployment risk.[23]

While the data on the occupation and/or degree is self-reported, it is obligatory to announce. In addition, it is public because it is seen in any voting booth and in the official elections ads under the name of a candidate. The most plausible concern is that a candidate chooses a degree or an occupation that she believes to enhance her election prospects most.[24]

2.5.2.2 Polluting mass-employment activities

Some municipality-specific events could influence both employment and environmental attitudes over time. Potential events include polluting mass-employment activities with time-varying employment, such as mines, plants,

[22] Transport, logistics, cleaning, janitors, guards, sales, media (through advertisement income), hospitality industry, mail delivery, and beauty care.

[23] I also check the robustness to a wider definition that includes the occupations in the narrower one as well as clerical work, self-employed, and teachers. The results do not change if using the wider definition of the unemployment risk.

[24] For example, a candidate could announce her university degree if she is unemployed or working in an occupation that could be considered as having a low status.

and the construction site of the Olkiluoto nuclear plant.

Launches and expansions of mines or plants obviously increase employment while closures and contractions decrease it. However, I would need more information on the preferences in order to determine if these events are correlated with the change of the environmental preferences and in order to find out the sign of correlation. The comments of the candidates attached to their 2012 policy positions provide no conclusive evidence to either direction. There are candidates who argue that a mine or a plant has already caused so much environmental damage that it should not be given any additional leeway but also those who argue that environmental protection has taken excessive proportions, harming employment and industry.

Local environmental problems caused by a mine or a plant should increase the support for environmental protection but they probably do not influence employment too much, except in extreme cases. During the term 2008-2012, there were no so severe environmental incidents that they would have increased unemployment.

However, the establishment of the Talvivaara mine in 2008 increased local employment substantially while it also was frequently emitting sulfate pollution, affecting the Sotkamo municipality and two neighboring municipalities during 2010-2012 (Hellsten 2014). As a robustness check, I redo the estimations excluding the candidates from the three affected municipalities, which does not change the earlier results (column (2) in Table A.6).

I also redo the estimations excluding the candidates from the Eurajoki municipality, where a large nuclear power plant construction site is located, and from the surrounding municipalities, 15 municipalities in total. The purpose of this exercise is to guard against the spurious correlation between the possible local employment changes and the potential changes in the local nuclear power attitudes after the Fukushima nuclear accident in 2011. The results are robust to excluding the candidates from these 15 municipalities (column (3) in Table A.6).

As for the public sector responses, the municipalities are generally fiscally constrained, to the degree that they are providing only a minimal amount of municipal services (Moisio et al. (2010)). Thus, they are unlikely to have substantial financial resources in order to subsidize failing firms. The national government has a weak incentive to target some municipalities with a business subsidy with the goal of a municipal elections victory for a single government party. This is because, in any Finnish government, there are 3-6 parties all across the ideological spectrum and very few swing municipalities.

In addition, the Greens is the only party for which environmental protec-

tion is a primary issue and the party is insignificant in most municipalities. While it was in the government through 2008-2012, it governed as a junior partner together with other parties. In addition, its constituencies are concentrated in a few, mainly urban municipalities while the polluting mass-employment activities, such as mines and plants, are mainly located outside the cities. Thus, it seems far-fetched that the public sector support would be targeted in order to sway the political opinion with respect to the environmental policies.

2.5.2.3 Weighting

Solon et al. (2013) note that the need for weighting depends on whether the sampling probability is endogenous. As the proportion of the candidates replying to the voting aid application questions is heterogenous across the municipalities, the sampling probability corresponds in the present context to the likelihood that there is a respondent from a municipality m with a time-varying municipality-specific unemployment rate u_{mt}.

I find that a change in the unemployment rate is not correlated with the share of repliers once controlling for the municipality and year fixed effects. Hence, it seems plausible that the sampling probability is exogenous so weighting is not needed for consistency and may make estimates more imprecise. Thus, I do not weight the regressions with the share of the candidates replying to the voting aid application questions in the main specifications. However, the robustness checks include also a weighted estimation, which does not differ from the unweighted one (column (7) in Table A.5).

2.5.2.4 Non-linear specifications

I estimate the following equation with ordered logit and ordered probit:

$$\begin{aligned}\Pr(\text{policy position change}_{impt} = j) \;=\; & \Pr(\kappa_{j-1} < \\ & \gamma(u_{m,2012} - u_{m,2008}) + \varepsilon_{impt} \leq \kappa_j)\end{aligned} \tag{2.5}$$

in which i represents a candidate, m stands for a municipality, p is a party, and t refers to an election year. The possible policy position changes run from -4 (from very employment-first to very environmental) to +4 (from very environmental to very employment-first) while 0 indicates no change. A caveat is that this approach treats similarly a change of one step in the extremes and in the middle of the distribution. Then again, as shown

in Figure 2.2, most candidates are located in the middle of the distribution. Usually, candidates adjust their policy positions at most with one step (Figure 2.3).

The results are qualitatively similar to the OLS specification (Figure 2.5 and Figure 2.6 show the results for ordered logit while the results do not change when using ordered probit). When the municipal unemployment rate increases, politicians are more likely to adjust their policy positions towards the employment-first direction and less likely not to change their policy positions and less likely to change them towards the environmentally friendly direction.

2.6 Channels

It seems now robust to conclude that, when municipal unemployment increases, the candidates do change their mind and start to prioritize environmental protection less, also when taking their personal unemployment risk into account, and the result holds even for Greens. Do the candidates genuinely think differently or are they competing for the votes? After all, municipal politics is the main point of entry into national politics. Thus, I study next if strategic behavior could explain this change of heart. Another channel which I consider is catering to the group interests. To be more precise, I investigate if the candidates are more sensitive towards unemployment of their gender or educational group.

2.6.1 Electoral incentives

First, I consider the electoral benefits of changing the policy position by studying if the popularity of the employment-first respondents increases with a higher municipal unemployment rate. Such candidates are the ones who agree strongly or somewhat with the statement "We should compromise on environmental protection if it increases employment."

To be more precise, I regress the vote share of the employment-first respondents on the municipal unemployment rate.[25] A one-percentage-point increase in the unemployment rate raises the number of such candidates by 2.5% (Table 2.5) and their vote share by 3% (Table 2.6).

On the other hand, as the candidates are more prone to prioritize employment over environmental protection when unemployment rises, the vote

[25] The equivalent estimations with the individual vote shares are not shown because, in the equilibrium, all the other candidates would have re-optimized, too. As a result, it is not clear how to interpret the coefficient of such an estimation since the *ceteris paribus* assumption of the other candidates holding their views fixed does not hold.

share of the employment-first candidates could increase mechanically, even if voters do not reward them for their policy position change, simply because there are more employment-first respondents. This is why I scale the vote share with the share of such respondents[26]:

$$\left(\frac{\text{employment-first respondents' vote share}}{\text{share of employment-first respondents}}\right)_{mt} = \alpha+\gamma u_{mt}+\delta_m+\beta_t+\varepsilon_{mt} \quad (2.6)$$

In this municipality-level estimation equation, m stands for a municipality while t represents an election year and the unemployment rate of the pre-electoral 12-month period is u_{mt}. Once regressing the scaled vote share on the municipal unemployment rate, the coefficient is positive but there is no statistically significant effect on the relative vote share when the municipal unemployment rate increases (Table 2.7). A similar result holds when doing an equivalent analysis to rightist or Green candidates separately while the coefficient is zero and statistically insignificant for leftist candidates.

To conclude, there is no strong evidence for a change in the relative popularity of the employment-first candidates in the municipalities with higher unemployment as the estimates are so imprecise. Moreover, both the political demand and supply have moved to a new equilibrium but at least politicians are not punished for becoming less environmentally friendly.

2.6.2 Strategic behavior

An alternative way to investigate the role of the electoral incentives focuses on political supply. I study if the candidates' reactions at the local unemployment rate differ by the strength of their electoral incentives. As the electorate decreases its support for environmental protection, both policy and office-motivated politicians should decrease their support, too, but in different ways. Since policies are only a means to an end rather than the end itself to office-motivated politicians, I expect them to target the most popular policy position more precisely than the policy-motivated politicians.

As there is evidence for the electorate changing its mind about the importance of environment in the face of an economic downturn, policy-motivated politicians who are essentially just draws from the general electorate can be expected to change their mind, too. The key difference is, then, that office-motivated politicians should be more precise in targeting their policy

[26]The employment-first respondents' vote share is their votes tally relative to the votes tally of all the voting aid application respondents $\left(\frac{\text{employment-first respondents' votes}}{\text{all respondents' votes}}_{mt}\right)$. Their share is defined as their total number relative to the number of all the voting aid application respondents $\left(\frac{\text{number of employment-first respondents}}{\text{number of all respondents}}_{mt}\right)$.

position changes, which results in a testable prediction that the variance of policy positions should be lower for office-motivated politicians.

I hypothesize that sure losers are all policy-motivated and care only about the success of their party, not of their personal success, since, otherwise, there is no reason why they should run in the first place. In contrast, marginal candidates may also be office-motivated because they have a positive probability of winning. I consider also the possibility that the sure winners may act strategically in order to enhance their chances of being elected to the most influential positions in the municipality, such as the position of a municipal council chairman, or of attracting more votes in the next parliamentary elections.

I proxy electoral strength by predicting the election probability based on a pre-treatment variable: the popularity in the previous elections. In the Finnish electoral system, the election probability depends on the total votes garnered by the party as well as a candidate's rank within the party, which, in turn, is a function of the within-party votes. Hence, I first estimate the probability of being elected to the municipal council in 2008 or in 2012, utilizing the candidate-specific electoral results of 2004 or 2008, respectively. I use the candidate's within-party popularity in the previous elections $\left(\frac{\text{own votes}}{\text{party's votes}}_{ip,t-4}\right)$ to estimate her election probability at t, taking into account her party's popularity in the municipality m at t[27].

I predict the within-party rank in the following elections with the pre-treatment variable $\left(\frac{\text{own votes}}{\text{party's votes}}_{ip,t-4}\right)$and estimate:

$$\begin{aligned}\Pr\left(\text{elected}_{impt}=1\right) &= \Phi\left(\alpha\frac{\text{own votes}}{\text{party's votes}}_{i,t-4}+\mu_{mp}\right.\\ &\left.+\beta*\frac{\text{own votes}}{\text{party's votes}}_{i,t-4}*\mu_{mp}\right) \qquad (2.7)\end{aligned}$$

in which i refers to a candidate, m is a municipality, t stands for an election while p represents a party. Then, I predict candidate i's election probability at t, using the estimated parameters $\hat{\alpha}$ and $\hat{\beta}$, and proxy her electoral strength with this predicted election probability. I do the prediction for 10293 candidates who ran in 2004, in 2008 and in 2012. The resulting bimodal distribution has two mass points at zero and one (Figure 2.7).

Next, I define the candidates with a less than 10% probability of winning as sure losers and those with a more than 90% winning probability as sure winners while the remaining candidates are marginal. According to this

[27]I control for the municipality-party effects because the popularity of each party tends to be stable over time in the Finnish municipalities but the results do not change if using the municipality-party-year effects instead.

definition, 97% of the sure winners were elected while 95% of the sure losers were not elected. In contrast, 42% of the marginal candidates were elected. The percentages are similar across the parties, with 96-99% of the sure winners elected, 35-46% of the marginal candidates elected and 93-98% of the sure losers not elected (Table A.7).

The predicted sure winners are elected more often, get more total votes and get more within-party votes than the predicted marginal candidates. The same goes for the marginal candidates relative to the predicted sure losers (columns (1)-(3) in Table 2.8). I also check if the perceptions of the candidates and their parties are consistent with my prediction of the electoral strength. The campaigning behavior provides indirect evidence that this is really the case: a larger winning probability is correlated with more campaign expenditure and a higher likelihood of being funded by the party[28] (columns (1) and (2) in Table 2.9). On the other hand, sure winners get more votes for a given expenditure category, which suggests that it is rational for them spend money in campaign expenditure (column (3) in Table 2.9).

As for how the policy positions are chosen, I assume that the policy position of the electorate and of policy-motivated politicians is formed as follows:

$$\text{policy position}_{jmpt} = \alpha + \gamma u_{mt} + \beta_t + \delta_j + \lambda_p + \varepsilon_{jmpt} \tag{2.8}$$

in which j represents an individual, p represents a party (or an ideological leaning in a case of an individual not affiliated with any single party), m stands for a municipality, while t is time. The year effects capture the impact of the national business cycles, the individual effects capture the permanent idiosyncratic position, while γ represents the average effect of the municipal unemployment. Finally, ε_{jmpt} is an idiosyncratic time-variant individual element.

In contrast, an office-motivated politician i aims for a policy position that is, on average, the most popular one in her party in her region:

$$\text{policy position}_{imt} = \alpha + \gamma u_{mt} + \beta_t + \alpha_r + \lambda_p + \varepsilon_{impt} \tag{2.9}$$

[28] Given that every candidate's election probability depends also on the total votes of the party, campaign expenditure by strong candidates creates a positive externality for the other candidates in the same list and increases the total number of seats won by a party. As a result, it is rational for a party to support its strong candidates financially.

given the municipal unemployment rate u_{mt} and the business cycle effect β_t. The individual component, δ_j, is replaced with a regional effect describing the permanent attitudes typical in that region, α_r.[29] While ε_{impt} is again an idiosyncratic time-variant individual element, I assume that it is likely to be smaller for a strategic politician than for an average citizen j.

I would like to have municipality-level panel data on how the electorate views the tradeoff between environment and employment in order to estimate γ but now I approximate it by estimating (9) for the sub-sample of the candidates who do not belong to the panel. In this subset, $\hat{\gamma}$ is 0.017. Next, I use the estimated $\hat{\gamma}$ together with region, party and year effects to predict the reaction for each municipality and party:

$$\hat{\text{reaction}}_{mpt} = \hat{\alpha} + \hat{\gamma} u_{mt} + \hat{\beta}_t + \hat{\alpha}_r + \hat{\lambda}_p \tag{2.10}$$

I deduct the reaction from candidates' policy positions and, assuming a symmetric loss function around it, regress the squared residuals on dummy variables describing the strength of the electoral incentives. If marginal candidates or sure winners behave strategically, δ and ζ, respectively, should be negative, implying a smaller variance.

$$\begin{aligned} (\text{policy position}_{impt} - \hat{\text{reaction}}_{mpt})^2 \;=\; & \alpha + \delta * \text{marginal candidate}_{impt} \\ & + \zeta^* \text{sure winner}_{impt} \\ & + \delta_{im} + \beta_t + \varepsilon_{impt} \end{aligned} \tag{2.11}$$

The coefficient for the interaction term of the marginal candidates and the municipal unemployment rate, δ, is zero, which implies that the marginal candidates do not react differently at the change of the unemployment rate from the others (Table 2.10). The equivalent interaction term for the sure winners, ζ, is also zero so neither do they react differently. When considering rightist, leftist and Green candidates separately, the interaction terms are still insignificant.

For the previous results, I divided the candidates into three categories by using 10% and 90% as the cut-off values for the electoral strength but the results are robust to the cut-off values of 5% and 95% as well as of 20% and 80%, respectively. Neither do the results change when using the continuous variable describing the electoral strength or when predicting the electoral strength with logit instead of probit. Finally, the results stay similar when

[29] Ideally, I would control for the municipality effects instead of the regional effects but because there are eight large or smaller parties in Finland I lack power to do that.

using the absolute value of the residuals instead of the squared residuals (Table A.8).

Candidates with stronger electoral incentives do not behave differently in terms of targeting the popular opinion[30]. This result is consistent with them genuinely changing their mind with respect to the importance of environmental protection when municipal unemployment rises.

2.6.3 Group interests

Finally, I study if the candidates respond more strongly to unemployment of people with the same gender or the same level of educational achievement. The literature on gender has documented that politicians may be more sensitive to the needs of their own gender (see e.g. Chattopadhyay and Duflo (2004)). A similar process might hold with respect to other group affiliations, such as educational achievement (for some evidence on the policy impact of the group affiliations see Pande (2003)). In this literature, the preferences are imputed from a group affiliation and are assumed to be same for all the group members.

The subgroup unemployment categories I consider are men, women as well as people with and without a university degree. Now I regress the policy positions on the municipality-specific unemployment rate of the relevant subgroups for a subset of the candidates (for example, regressing the policy positions of female candidates on the share of the unemployed men relative to the male labor force and on the share of the unemployed women relative to the female labor force):

$$\text{policy position}_{igmpt} = \alpha + \gamma_1 u_{gmt} + \gamma_2 u_{-g,mt} + \delta_{im} + \beta_t + \varepsilon_{impt} \quad (2.12)$$

whereby g stands for a gender affiliation or an education achievement group, m is a municipality, t represents an election year, and i is a candidate, while u_{gmt} is the annual unemployment rate of the own group and $u_{-g,mt}$ is that of the opposite group.

The responses to the municipal unemployment rates of each subgroup are clearly weaker than the responses towards the general unemployment rate in the municipality, probably due to the fact that the latter rate is more salient. Both male and female candidates react more strongly at the female unemployment rates (columns (1) and (2) in Table 2.11). For the male candidates, the Wald test on the differences between γ_1 and γ_2

[30] As Table 2.10 shows, variances do not differ but neither do the means differ by the electoral strength (Table A.9).

is significant at the 10% level while it is significant at the 5% level for the female candidates. In unreported regressions, I redo the estimations and the Wald tests for the logarithms of the gender-specific unemployment rates. Now, the coefficients no longer differ in a statistically significant way, even though both men and women still react more strongly at the female unemployment.

Irrespective of the level of educational achievement, candidates react only at the unemployment rate of non-university graduates (columns (3) and (4) in Table 2.11). According to the Wald test, γ_1 and γ_2 differ at the 1% significance level for the non-university graduates while they differ at the 5% significance level for the university graduates. Moreover, the results do not change when redoing (12) with the logarithms of the unemployment rates of each educational group.

Given that unemployment of non-university graduates increased more and from a higher level than that of university graduates, it is maybe natural that all the candidates react only at the first one. However, a similar logic does not seem to hold for the gender-specific unemployment rates since male unemployment increases markedly, too[31]. The evidence for catering to group interests is mixed as it only holds for non-university graduates and, to some degree, women.

2.7 Conclusions

An increase in the municipal unemployment rate makes the candidates running for the municipal council more willing to prioritize employment over environmental protection. While there is some heterogeneity across political affiliations, there is an overall tendency to increasingly prioritize employment. The results hold also for alternative measures of unemployment and for controlling for the candidate's own approximated unemployment risk.

With higher municipal unemployment, the vote share of the employment-first candidates increases but so does their share out of all the respondents. When scaling the vote share of such candidates with their number, the point estimates suggest that the relative popularity increases of the conservative candidates. However, the estimates are imprecise, so this evidence for the existence of the electoral incentives is only tentative.

[31] The median municipal unemployment rate for the university graduates increased from 3.8% to 4.5% between 2008 and 2012 while the median municipal unemployment rate of the people without a university degree increased from 11.1% to 12.4%. The median male municipal unemployment rate increased from 11% to 12.7% between 2008 and 2012 while the median female municipal unemployment rate increased very little, from 9.2% to 9.4%

The candidates that I hypothesize to have the strongest electoral incentives to target the voters' preferences as precisely as possible do not behave differently from the others. Thus, the results are consistent with the candidates being policy-motivated, which would be in line with the low monetary returns to municipal politics, despite its role as an entry point to national and EU politics. The evidence on whether the candidates are catering to their group interests is inconclusive as this seems to be the case only for the candidates without a university degree.

As the voting aid application respondents seem to be more successful and skilled politicians than the non-respondents, the results may well overstate the impact of unemployment on the overall policy positions of all the candidates. Nevertheless, to the extent that the respondents are more skilled politicians, they may well have a disproportionate impact on the policy outcomes, which is why the results are still interesting despite possibly weak external validity.

As the municipalities have limited powers to decide upon environmental policies, the direct economic implications of a decreasing weight placed on environmental protection are probably small. However, the results provide some evidence consistent with a re-optimization process in the face of an economic downturn in the same vein as in Kahn and Kotchen (2010). Moreover, this change of heart at the municipal level could provide a signal to the national level as parties' grassroots activists are often active in municipal politics.

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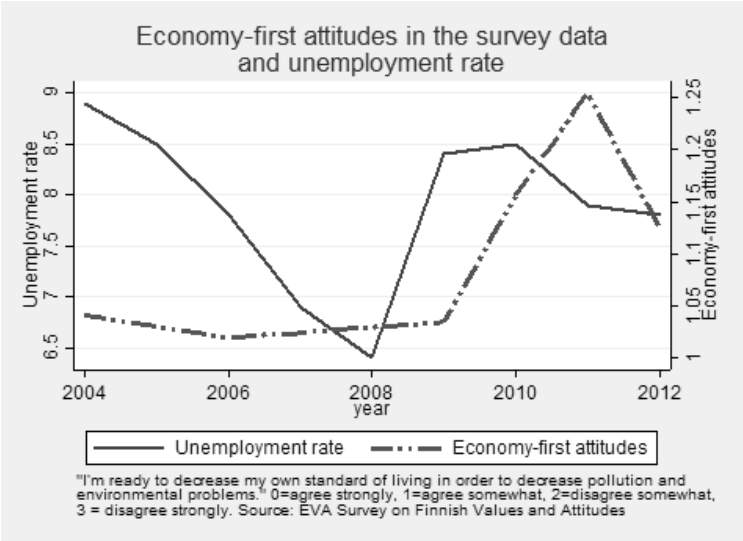
Municipal Elections electoral results 2004, 2008, 2012: Ministry of Justice,

http://tulospalvelu.vaalit.fi/

Figure 2.1: Evolution of environmental attitudes



Note: A higher number indicates a lower willingness to agree with the statement "I am willing to compromise on the standard of living in order to alleviate pollution and environmental problems."

Figure 2.2: Distribution of the environment vs. jobs replies

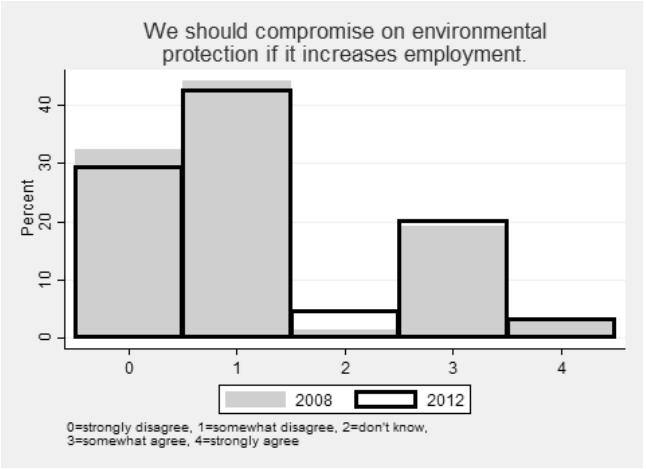
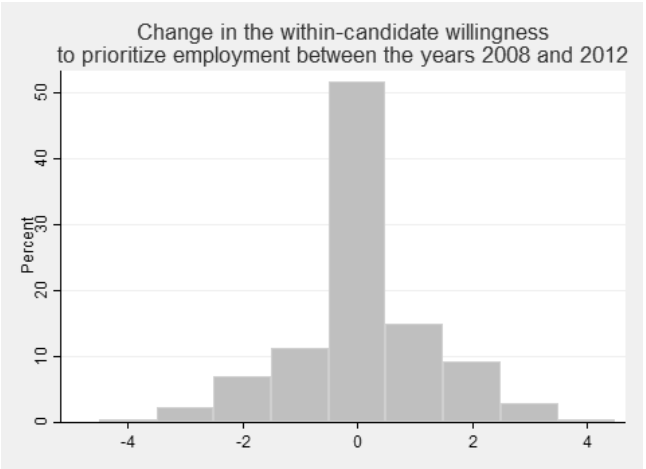


Figure 2.3: Change in the environment vs. jobs replies



Note: A larger number means increased willingness to prioritize employment.

Figure 2.4: Evolution of municipal unemployment rates

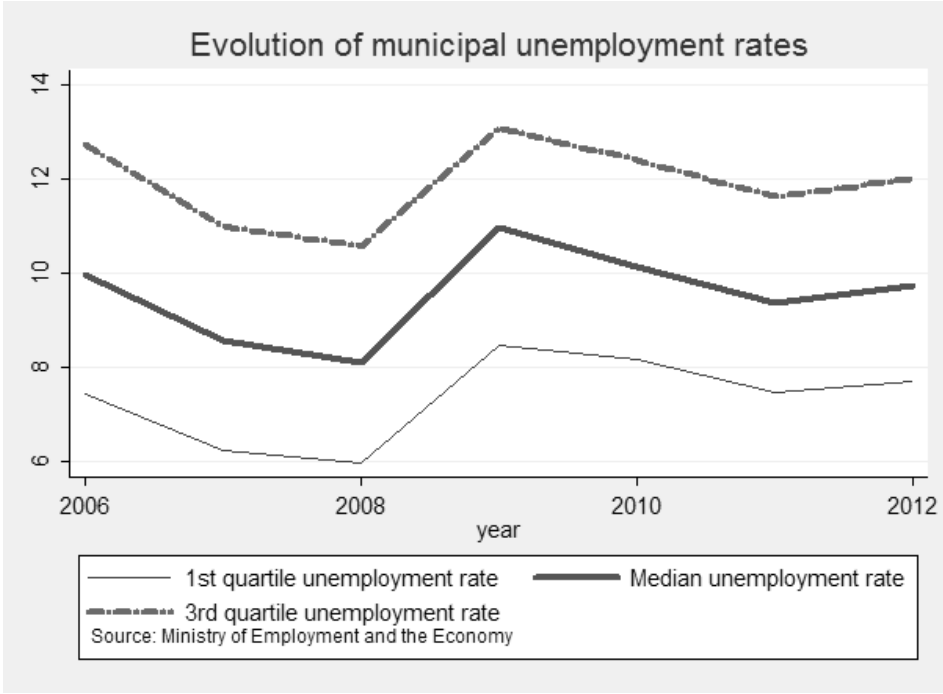
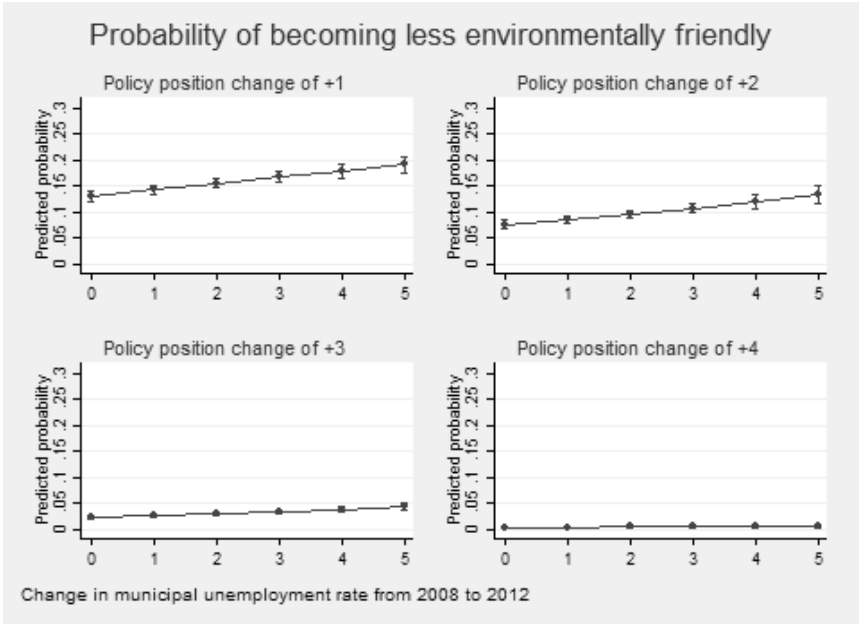
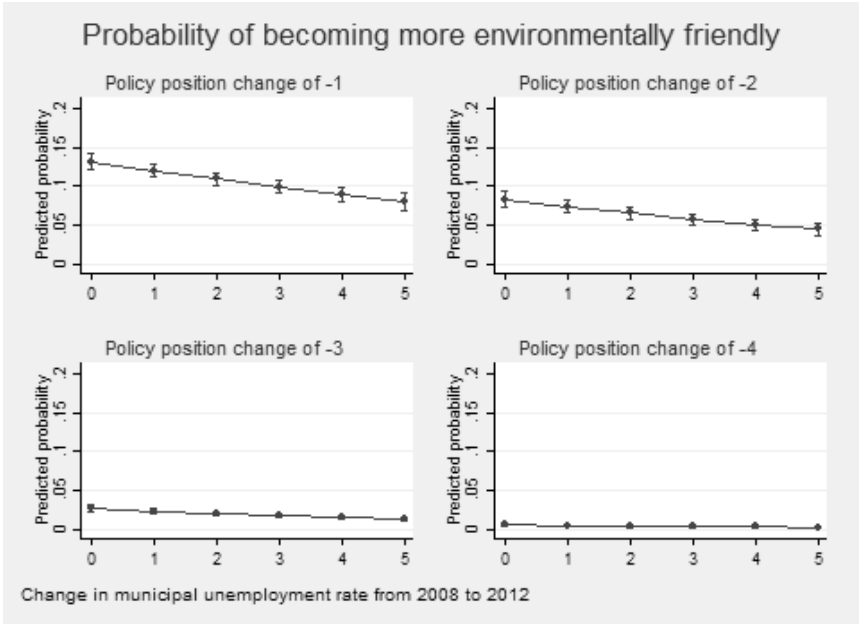


Figure 2.5: Predicted probabilities using ordered logit

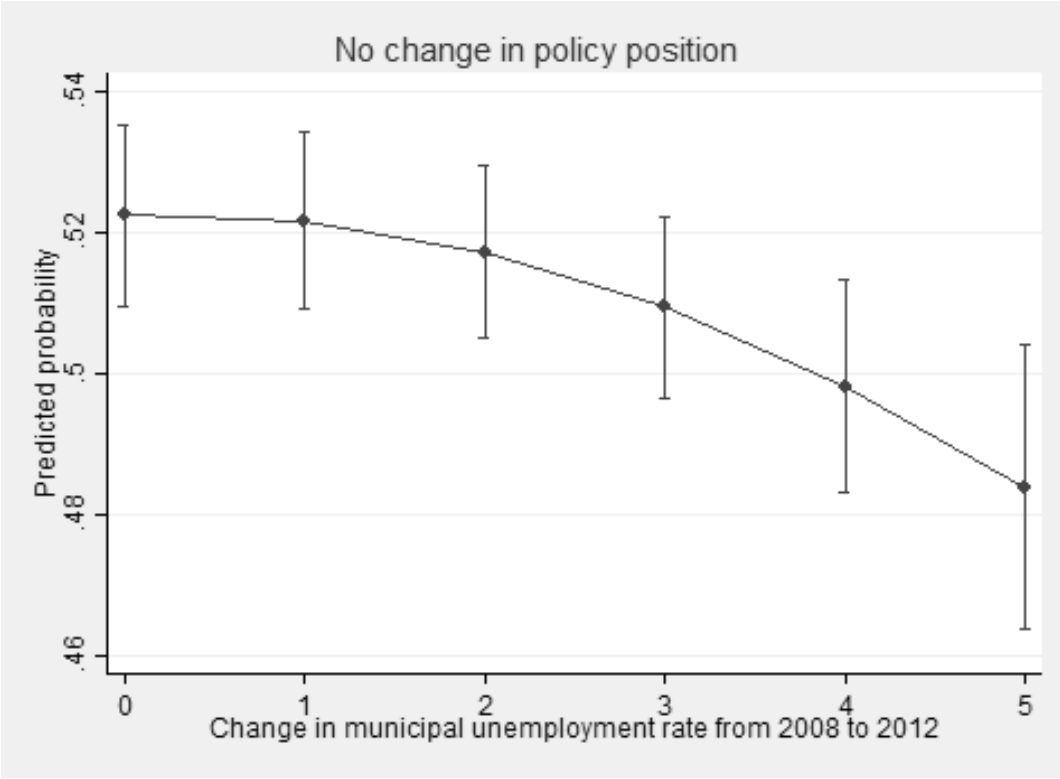


Note: In total, 1177 candidates become one step more employment-first, 723 candidates become two steps more employment-first, 221 candidates become three steps more employment-first, and 33 candidates become four steps more employment-first. Standard errors clustered at the municipality level.



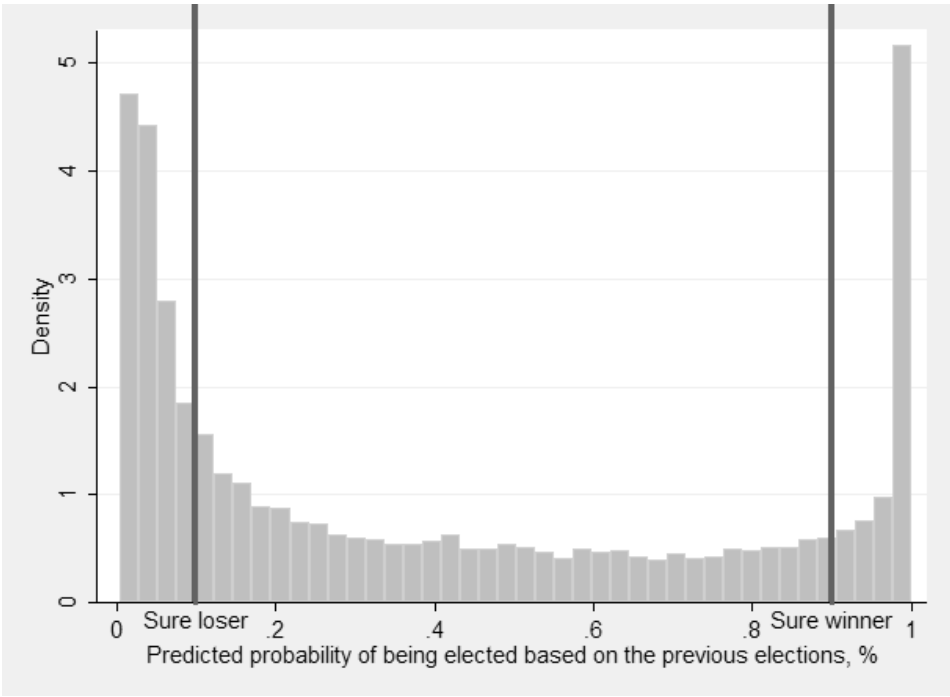
Note: In total, 888 candidates become one step more environmentally friendly, 540 candidates become two steps more environmentally friendly, 171 candidates become three steps more environmentally friendly, and 33 candidates become four steps more environmentally friendly. Standard errors clustered at the municipality level.

Figure 2.6: Predicted probabilities of no change using ordered logit



Note: 4058 candidates do not change their positions. Standard errors clustered at the municipality level.

Figure 2.7: Predicted probability of being elected



Note: The red lines mark the cut-off values for the sure losers (less than a 10% winning probability) and for the sure winners (higher than a 90% probability of being elected).

Table 2.1: Environmental attitudes, being unemployed and other socio-economic variables

Dependent variable	Standard of life more important than environment	
Being	0.061**	0.050**
unemployed	(0.024)	(0.024)
Female		-0.268***
		(0.011)
University		-0.140***
graduate		(0.013)
Young		-0.015
		(0.014)
Old		0.042***
		(0.014)
Observations	22,034	22,034
R-squared	0.024	0.058

Note: The data source is the Eva surveys for the citizens. The dependent variable is the survey participant response to the statement "I am willing to compromise on standard of living in order to alleviate pollution and environmental problems." A larger number indicates stronger agreement. The survey data does not include the exact age but an age category, based on which I construct the age dummies. At most 30 years old are classified as young until 2006 after which at most 25 years old are classified as young. The equivalent age limits for being old are at least 61 years old and at least 56 years old, respectively. Both specifications control for the province and the year effects. Robust standard errors. *** p<0.01, ** p<0.05, * p<0.1

Table 2.2: Average willingness to prioritize employment over environment by party

	2008	2012
Center	1.43	1.44
	(1.19)	(1.14)
SDP	1.13	1.19
	(1.11)	(1.12)
Nat.Coal.	1.32	1.46
	(1.17)	(1.18)
Greens	0.32	0.35
	(0.63)	(0.65)

Note: A larger number means increased willingness to prioritize employment. The three main parties are the National Coalition, the Centre Party, both conservative, as well as the leftist SDP.

Table 2.3: Descriptive statistics for the municipal unemployment rate

	2008	2012
Mean	8.4%	9.7%
	(3.4)	(3.2)
25th percentile	5.9%	7.5%
Median	8.1%	9.5%
75th percentile	10.5%	11.8%

Note: The unemployment rate is calculated as an average of the monthly municipal unemployment rates during 12 months before the election.

Table 2.4: Unemployment rate and candidates' policy positions

	(1)	(2)	(3)	(4)	(5)
Dependent variable	Employment-first				
Sample	All	Panelists	Panelists, right	Panelists, left	Panelists, Greens
Unemployment	0.058***	0.086***	0.098***	0.094***	0.072*
rate	(0.012)	(0.013)	(0.023)	(0.028)	(0.037)
Candidate effects		yes	yes	yes	yes
Municipality-party effects	yes				
Observations	40,794	15,688	7,430	4,418	1,184
Number of candidates		7,844	3,715	2,209	592
R-squared	0.169	0.013	0.013	0.017	0.008

Note: The dependent variable is the candidate response to the statement "We should compromise on environmental protection if it increases employment.". A larger number indicates a stronger agreement. All the specifications control for the election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.5: Unemployment rate and share of employment-first candidates in the municipalities

	(1)	(2)	(3)	(4)
Dependent variable	Employment-first respondents among:			
Sample	any party	rightists	leftists	Greens
Unemployment rate	0.025***	0.024***	0.017	-0.020
	(0.006)	(0.008)	(0.025)	(0.037)
Observations	597	576	446	48
R-squared	0.761	0.755	0.804	0.999
Median of dep.var.	0.25	0.29	0.21	0.09

Note: An employment-first respondent agrees strongly or somewhat with the statement "We should compromise on environmental protection if it increases employment." Their share is defined as their total number relative to the number of all the voting aid application respondents $\left(\frac{\text{number of employment-first respondents}}{\text{number of all respondents}}_{mt}\right)$. All the specifications control for the municipality and election year effects. An observation is an election year - municipality pair. The number of observations in columns (2)-(4) is smaller than in (1) because not all the municipalities have rightist, leftist or Green employment-first voting aid respondents. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.6: Unemployment rate and total vote share of the employment-first candidates in the municipalities

	(1)	(2)	(3)	(4)
Dependent variable	Employment-first candidates' vote share among:			
Sample	any party	rightists	leftists	Greens
Unemployment rate	0.030***	0.034***	0.022	-0.002
	(0.009)	(0.012)	(0.023)	(0.037)
Observations	597	576	446	48
R-squared	0.746	0.727	0.816	0.999
Median of dep.var.	0.25	0.28	0.17	0.04

Note: An employment-first respondent agrees strongly or somewhat with the statement "We should compromise on environmental protection if it increases employment." Employment-first respondents' vote share is their total votes relative to all to the total votes of voting aid application respondents $\left(\frac{\text{employment-first respondents' votes}}{\text{all respondents' votes}}_{mt}\right)$. All the specifications include municipality and election year effects. An observation is an election year - municipality pair. The number of observations in columns (2)-(4) is smaller than in (1) because not all the municipalities have rightist, leftist or Green employment-first voting aid respondents. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.7: Unemployment rate and total vote share of the employment-first candidates scaled with their number

	(1)	(2)	(3)	(4)
Dependent variable	Employment-first candidates' vote share relative to their share of candidates			
Sample	any party	rightists	leftists	Greens
Unemployment rate	0.023	0.043	-0.006	0.318
	(0.019)	(0.027)	(0.055)	(0.544)
Observations	597	576	446	48
R-squared	0.605	0.579	0.669	0.964
Median of dep.var.	0.97	0.97	0.81	0.49

Note: An employment-first voting respondent agrees strongly or somewhat with the statement "We should compromise on environmental protection if it increases employment." Their share is defined as their total number relative to the number of all the voting aid application respondents $\left(\frac{\text{number of employment-first respondents}}{\text{number of all respondents}}_{mt}\right)$. The employment-first respondents' vote share is their total votes relative to all to the total votes of voting aid application respondents $\left(\frac{\text{employment-first respondents' votes}}{\text{all respondents' votes}}_{mt}\right)$. The dependent variable is the relative vote share divided by the relative candidate share $\left(\frac{\text{employment-first respondents' vote share}}{\text{share of employment-first respondents}}_{mt}\right)$. All the specifications include municipality and election year effects. An observation is an election year - municipality pair. The number of observations in columns (2)-(4) is smaller than in (1) because not all the municipalities have rightist, leftist or Green employment-first voting aid respondents. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.8: Predicted electoral strength and actual electoral outcomes

	(1)	(2)	(3)
Dep. var.	Prob. of being elected	Vote share(%)	Within-party vote share(%)
Marginal	0.370***	0.542***	3.683***
	(0.004)	(0.024)	(0.118)
Sure winner	0.925***	2.028***	10.730***
	(0.006)	(0.050)	(0.205)
Observations	33,827	33,827	33,827
R-squared	0.424	0.611	0.603
Mean of dep.var.	0.27	0.84%	5.7%
	(0.44)	(1.14)	(11.27)

Note: All the specifications control for the municipality-party and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.9: Predicted electoral strength and actual campaigning

	(1)	(2)	(3)
Dep. var.	Campaign exp.	Party funding	Votes relative to exp.
Marginal	0.403***	0.047***	0.371***
	(0.078)	(0.012)	(0.036)
Sure winner	0.727***	0.056***	1.392***
	(0.111)	(0.015)	(0.078)
Observations	16,196	17,716	16,196
R-squared	0.377	0.201	0.653
Mean of dep.var.	1.30	0.29	0.79
	(0.81)	(0.45)	(1.11)

Note: Campaign expenditure is divided into ten categories (0-500€, 501-1000€, 1001-2000€, 2001-3000€, 3001-5000€, 5001-7000€, 7001-10000€, 10001-15000€, 15001-20000€ and over 20000€). "Votes relative to expenditure" refers to the total vote share divided by the expenditure category. Party funding equals one if the party was named as the main external source of funding. All the specifications control for the municipality-party and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.10: Unemployment rate, candidates' policy positions, and electoral strength

	(1)	(2)	(3)	(4)
Dependent variable	Squared deviation from the general position$_{mpt}$			
Sample restrictions	Panelists	Panelists, right	Panelists, left	Panelists, Greens
Marginal candidate	0.067	0.134	0.074	-0.533
	(0.084)	(0.109)	(0.145)	(0.391)
Sure winner	0.133	0.249*	0.050	-0.148
	(0.100)	(0.144)	(0.164)	(0.469)
Observations	7,522	3,946	2,492	448
Number of candidates	3,761	1,973	1,246	224
R-squared	0.000	0.002	0.002	0.022

Note: Marginal candidates' predicted probability of winning is 10-90% and sure winners' predicted probability of winning exceeds 90%. All the specifications control for the candidate and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.11: Unemployment of the own and opposite groups and panelists' policy positions,

	(1)	(2)	(3)	(4)
Dependent variable	Employment-first			
Sample restrictions	Men	Women	University graduates	Non-university graduates
Unemployment rate, men	0.009	0.014		
	(0.010)	(0.012)		
Unemployment rate, women	0.044***	0.055***		
	(0.013)	(0.014)		
Unemployment rate, university graduates			-0.002	-0.004
			(0.014)	(0.011)
Unemployment rate, non-university graduates			0.050***	0.053***
			(0.014)	(0.011)
Observations	9,500	6,188	6,224	8,762
Number of candidates	4,750	3,094	3,112	4,381
R-squared	0.011	0.020	0.015	0.012

Note: The dependent variable is the candidate response to the statement "We should compromise on environmental protection if it increases employment.". A larger number indicates a stronger agreement. All the specifications control for the candidate and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

3 Appendix

Table A.1: Willingness of the candidates to prioritize employment over environmental protection

Dep. var.	Employment-first
Female	-0.300***
	(0.013)
Age	0.002***
	(0.001)
High-income	-0.094***
	(0.015)
Low-income	0.058***
	(0.018)
Greens	-0.871***
	(0.031)
Soc.Democrats	-0.169***
	(0.025)
Nat.	0.083***
Coalition	(0.025)
Swedish	-0.185***
People's Party	(0.041)
Christ.	-0.166***
Democrats	(0.036)
Left	-0.450***
Alliance	(0.029)
Finns	0.303***
Party	(0.040)
Observations	40,794
R-squared	0.131

Note: I classify a candidate as having "high income" if he has a managerial position or is a senior white-collar worker. "Middle-income" is the omitted category and refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with "low income" are retired, home-makers, farmers, students or unemployed. The conservative Center Party is the omitted party category. The Social Democrats are leftist, the National Coalition is conservative, the Greens and the Swedish People's Party are liberal, the Christian Democrats are conservative, the Left Alliance is far left, and the Finns Party is populist. Income groups are based on the self-reported occupational category. The specification controls for the municipality and year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table A.2: Descriptive statistics on the candidates, socio-economic variables

	2008 repliers	2008 non-repliers	2012 repliers	2012 non-repliers
Female	0.43	0.37	0.41	0.36
	(0.50)	(0.48)	(0.49)	(0.48)
Age	45.33	50.32	46.38	51.65
	(12.79)	(13.25)	(13.27)	(13.75)
High-income	0.24		0.19	
	(0.42)		(0.39)	
Middle-income	0.46		0.45	
	(0.50)		(0.50)	
Low-income	0.21		0.21	
	(0.41)		(0.41)	
Municipality employees	0.25		0.19	
	(0.43)		(0.39)	
University degree	NA		0.38	
			(0.49)	
Observations	20060	18241	20734	16346

Note: The data on the gender and the age comes from the electoral statistics. The data on the occupational status and the university education (only for 2012) is self-reported in the voting aid applications. Income groups are based on the self-reported occupation category. I classify a candidate as having high income if he has a managerial position or is a senior white-collar worker. Middle-income refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with low income are retired, home-makers, farmers, students or unemployed.

Table A.3: Descriptive statistics on the candidates, political variables

	2008 repliers	2008 non-repliers	2012 repliers	2012 non-repliers
Vote share	0.92%	0.79%	0.85%	0.77%
	(1.20)	(1.08)	(1.15)	(1.10)
Within-party	5.98%	5.24%	6.18%	5.17%
vote share	(11.48)	(10.92)	(11.69)	(10.52)
Share elected councilor	0.33	0.21	0.31	0.20
	(0.47)	(0.41)	(0.46)	(0.40)
Share elected deputy	0.26	0.26	0.25	0.26
	(0.44)	(0.44)	(0.43)	(0.44)
Share incumbent	0.24	0.19	0.22	0.17
councilor	(0.43)	(0.39)	(0.41)	(0.38)
Share Member of Parliament at	0.007	0.001	0.007	0.001
the time of the munic. elections	(0.083)	(0.030)	(0.081)	(0.038)
Share has been councilor or	0.36		0.50	
deputy earlier	(0.48)		(0.50)	
Campaign expenditure	1.31		1.30	
category	(0.81)		(0.81)	
Share party main source of	0.35		0.23	
external funding	(0.48)		(0.42)	
Share trade union main source	0.03		0.05	
of external funding	(0.16)		(0.21)	
Share firms or industry main	0.02		0.02	
source of external funding	(0.15)		(0.12)	
Observations	20060	18241	20734	16346

Note: The data on the campaign expenditure and the funding sources is self-reported by the voting aid repliers and the remaining data comes from the electoral statistics. "Vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality. "Within-party vote share" stands for the votes of a candidate divided by the vote tally of all the candidates of the same party in the municipality. "Elected" became a municipal councilor while "deputy" became a deputy councilor. Campaign expenditure categories are as follows: 1 = 0-500€, 2 = 501-1000€, 3 = 1001-2000€, 4 = 2001-3000€, 5 = 3001-5000€, 6 = 5001-7000€, 7 = 7001-10000€, 8 = 10001-15000€, 9 = 15001-20000€, and 10 = over 20000€.

Table A.4: Descriptive statistics on the party affiliations of the candidates

	2008 repliers	2008 non-repliers	2012 repliers	2012 non-repliers
Center Party	0.26	0.26	0.21	0.24
	(0.44)	(0.44)	(0.41)	(0.43)
National Coalition	0.23	0.16	0.22	0.14
	(0.42)	(0.36)	(0.41)	(0.35)
Social Democrats	0.18	0.23	0.17	0.21
	(0.38)	(0.42)	(0.37)	(0.41)
Greens	0.08	0.03	0.09	0.03
	(0.27)	(0.17)	(0.28)	(0.17)
Finns Party	0.03	0.07	0.10	0.14
	(0.17)	(0.25)	(0.30)	(0.35)
Swedish People's Party	0.04	0.03	0.04	0.03
	(0.19)	(0.18)	(0.19)	(0.18)
Christian Democrats	0.05	0.05	0.05	0.05
	(0.21)	(0.22)	(0.22)	(0.22)
Left Alliance	0.09	0.13	0.08	0.11
	(0.29)	(0.33)	(0.28)	(0.31)
Not a party member	0.23		0.16	
	(0.42)		(0.37)	
Observations	20118	18241	20734	16346

Note: The dummy for the party membership is self-reported while the other variables come from the electoral statistics. The Center Party is conservative, the Social Democrats are leftist, the National Coalition is conservative, the Greens and the Swedish People's Party are liberal, the Christian Democrats are conservative, the Left Alliance is far left, and the Finns Party is populist. A candidate may run in a party's list even without being a member of that party.

Table A.5: Robustness of main result to alternative measures of unemployment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Median
Dependent variable	Employment-first							
Sample	Panelists	Panelists	Panelists	Panelists	Panelists	Panelists	Panelists	
Log of unemployment rate	0.811***							
	(0.114)							
New unemployment spells		0.069***						5.5%
		(0.016)						
Layoff share, all available years			5.379**					2.6%
			(2.250)					
Layoff share, two years before the elections				6.528***				2.1%
				(2.404)				
Entry into unemployment retirement					0.251**			0.09%
					(0.097)			
Share on unemployment retirement						0.068		0.8%
						(0.044)		
Unemployment rate, weighted							0.086***	8.9%
							(0.013)	
Observations	15,688	15,688	15,688	15,688	15,688	15,688	15,688	
Number of candidates	7,844	7,844	7,844	7,844	7,844	7,844	7,844	
R-squared	0.016	0.011	0.009	0.009	0.008	0.008	0.013	

Note: The new unemployment spells, the laid off employees in 2006-2008 and 2009-2012, and the employees laid off within two years before the elections are proportional to the municipal labor force. The layoff data starts from 2006. The entries into unemployment pension and the share on unemployment pension are proportional to the municipal population. All the specifications control for the candidate and election year effects. The specification (7) is weighted with the number of voting aid repliers in the municipality. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table A.6: Robustness of main result to alternative specifications

	(1)	(2)	(3)
Dependent variable		Employment-first	
Sample restrictions	Panelists	Panelists	Panelists
Unemployment rate	0.086***	0.082***	0.088***
	(0.013)	(0.013)	(0.013)
Unemployment rate* risk occupation$_{2008}$	-0.003		
	(0.008)		
		No municipalities located around the Talvivaara mine	No municipalities located around the nuclear plant construction site
Observations	15,688	15,572	14,740
Number of candidates	7,844	7,786	7,370
R-squared	0.013	0.014	0.015

Note: "Risk occupation" is based on the electoral announcement about the candidate's occupation and/or degree in 2008 and is described in detail in 2.5.2.1 Personal unemployment shock. (2) excludes three municipalities, one of which is a town. (3) excludes 15 municipalities, two of which are towns. All the specifications control for the candidate and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table A.7: Goodness of prediction, by parties

	All	Center Party	Nat.Coal.	Soc.Democrats	Swedish People's Party
Elected sure winners	97.4%	97.0%	98.0%	95.8%	98.1%
Elected marg. candidates	41.8%	46.2%	40%	40.7%	45.8%
Elected sure losers	4.6%	2.5%	6.0%	6.7%	1.6%

	All	Greens	Finns' Party	Left Alliance	Christ.Democrats
Elected sure winners	97.4%	99.2%	99.0%	98.0%	99.4%
Elected marg. candidates	41.8%	34.5%	37.2%	38.0%	35.7%
Elected sure losers	4.6%	4.5%	6.1%	2.9%	2.8%

Note: Marginal candidates' predicted probability of winning is 10-90% and sure winners' predicted probability of winning exceeds 90%. The four dominant parties at the municipal level are the conservative National Coalition, the conservative Centre Party, the leftist Social Democrats, and the liberal Swedish People's Party. The Greens are liberal, the Finns' Party is populist, the Left Alliance is a far-left party, and the Christian Democrats are conservative.

Table A.8: Unemployment rate, candidates' environmental positions, and electoral strength, robustness

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Squared deviation from the general position$_{mpt}$					Absolute deviation$_{mpt}$
	Panelists	Panelists	Panelists	Panelists	Panelists	Panelists
Marginal candidate	0.010	-0.027	0.067			0.044
	(0.100)	(0.066)	(0.084)			(0.037)
Sure winner	0.049	-0.013	0.133			0.058
	(0.124)	(0.082)	(0.100)			(0.044)
Strength				0.009	-0.026	
				(0.091)	(0.348)	
Strength^2					0.033	
					(0.308)	
	5-95% cut-off	20-80% cut-off	logit	cont. var.	cont. var.	10-90% cut-off
Observations	7,523	7,523	7,523	7,523	7,523	7,523
Number of candidates	3,762	3,762	3,762	3,762	3,762	3,762
R-squared	0.000	0.000	0.000	0.000	0.000	0.001

Note: In the specification (1), marginal candidates' predicted probability of winning is 5-95% and sure winners' predicted probability of winning exceeds 95%. In the specification (2), marginal candidates' predicted probability of winning is 20-80% and sure winners' predicted probability of winning exceeds 80%. The specification (3) uses logit predictions instead of probit predictions, with marginal candidates' predicted probability of winning being 10-90% and sure winners' predicted probability of winning exceeding 90%. The specifications (4) and (5) use the continuous variable for the predicted electoral strength, $\hat{Elected}_{ip,t}$. All the specifications control for the candidate and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table A.9: Unemployment rate, candidates' policy positions, electoral strength, and differences in means instead of variances

	(1)	(2)	(3)	(4)	(5)
Dependent variable	Employment-first				
Sample	Panelists	Panelists, right	Panelists, left	Panelists, Greens	Panelists
Unemployment	0.115***	0.123***	0.110***	0.048	0.114***
rate	(0.021)	(0.030)	(0.033)	(0.043)	(0.020)
Unemployment rate*	-0.001	-0.006	0.005	-0.001	
marginal candidate	(0.005)	(0.008)	(0.008)	(0.011)	
Unemployment rate*	-0.002	-0.008	0.006	-0.001	
sure winner	(0.006)	(0.011)	(0.011)	(0.016)	
Observations	7,640	3,946	2,548	448	7,640
Number of candidates	3,820	1,973	1,274	224	3,820
R-squared	0.016	0.016	0.020	0.009	0.016

Note: The dependent variable is the candidate response to the statement "We should compromise on environmental protection if it increases employment.". A larger number indicates a stronger agreement. Marginal candidates' predicted probability of winning is 10-90% and sure winners' predicted probability of winning exceeds 90%. All the specifications control for the candidate and election year effects. Standard errors clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

4 Does Political Experience Influence Policy Positions?

Riikka Savolainen, Aalto University School of Business[1]

Abstract:

I investigate whether there is an incumbency effect with respect to policy positions regarding degree of the redistribution or the public sector size in an RDD set-up. I also study if tenure makes politicians choose more moderate policy positions or approach national party position averages, general regional position averages or regional party position averages. I do not find an impact and can rule out an effect larger than 20% of the standard deviation for all the outcomes. The results suggest that being in office does not change politicians' policy positions.

JEL Codes: D72, H11, H23, H70, J14

Key words: candidate positioning, information, incumbency effect

email: riikka.savolainen@aalto.fi

4.1 Introduction

This paper examines whether politicians change their positions as they gain experience. The research question is motivated by anecdotal evidence on the politicians changing their initial policy positions after facing economic or political realities. Examples include President Mitterrand's U-turn from expansive fiscal policy towards austerity (Malinvaud (1993)) and President Obama distancing himself from the centrist positions after the debt-ceiling

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crisis (Cassidy (2013)). In the Finnish context, Savolainen (2015) documents that an increase in the municipal unemployment rate makes councilors across the political spectrum more prone to prioritize employment over environmental protection. The previous literature assumes that politicians' types and positions are fixed as long as they are re-electable (for a survey see Besley (2005)). In contrast, this paper allows for the possibility that their positions may change as they gain experience.

I investigate if political experience influences politicians' policy positions in the following elections. To be more precise, I study if there is an incumbency effect on pre-electoral policy positions in the Finnish municipal elections in 2008 and in 2012 caused by a tenure as a municipal councilor or as a municipal council deputy in the preceding term. For example, Ruostetsaari and Holttinen (2001) find in an exploratory survey that there are differences between the novice councilors and the experienced ones. The novice councilors in their data state that the lack of information complicates taking a stand more often than the experienced councilors do.[2] While being elected as a municipal councilor probably does not make much of a difference from the voter perspective except for leading politicians, I hypothesize that it could make a difference for a candidate herself in terms of gaining experience. Even a rank-and-file municipal politician is exposed to the realities of the municipal governance to a whole different degree than an ordinary municipal resident.

The policy outcome variables are two summary indices describing redistribution and public sector size policy positions[3]. I hypothesize that having to face fiscal constraints at first hand makes politicians more likely to support austerity policies. I also consider if experience makes them choose more moderate policy positions[4] or if it makes them more or less similar to other politicians in their party or in their region.

Comparing the close winners and the close losers of the previous elections, I fail to find an effect on their policy positions in the next elections and can rule out an effect larger than 20% of the standard deviation. When

[2]For some evidence on how having an experienced finance minister is associated with lower public debt, see Moessinger (2014).

[3]The policy position data that I use comes from the voting aid applications of the Finnish public broadcasting company. The purpose of a voting aid application is to provide voters with information on the policy positions of the candidates.

[4]In the 2015 parliamentary election, the public broadcasting company, Yle, compared the policy positions of voters and politicians based on a random sample of 70,000 voting aid application visits out of 1.8 million visits. According to this comparison, parliamentary candidates had more moderate positions than voters especially in terms of more controversial questions such as immigration, foreign policy and the ease of access to social welfare. (http://yle.fi/uutiset/suurten_massojen_tavoittelu_saa_ehdokkaat_vastaamaan_tylsasti_vaalikoneessa/7936326).

considering the effects by political experience, councilors without earlier political experience support a smaller public sector size in 2012 but there is no equivalent effect in 2008. There is some evidence that deputies without earlier political experience become more aligned with average positions.

In addition to a general effect, I consider municipality-level heterogenous effects with respect to the evolution of the municipality size and the municipality finances [5]. The informational treatment might be stronger in a larger municipality since the ordinary residents can be assumed to be more knowledgeable about the state of the municipality, smaller the municipality. The treatment could also be weaker if the media coverage on the municipal affairs is more extensive in a larger municipality.

I hypothesize that the informational treatment is strengthened by a faster change of the municipal finances. Because the majority of the municipal tax revenue comes from income taxes, employment is essential for the fiscal balance of a municipality. In 2008-2012, a faster change of the municipal finances meant in practice a larger increase in the municipal unemployment rate. Such conditions should make the municipal politics insiders relatively more aware of increasingly binding fiscal constraints compared to the outsiders. In contrast, the unemployment rates decreased or did not change in 2004-2008 so I do this estimation only for 2012 and find that councilors in the municipalities with an increasing unemployment rate become more aligned with regional as well as party average positions.

I contribute to the literature on whether the experiences may change political opinions by considering the impact of a very common-place political experience of tenure. Washington (2008) has studied the impact of children's gender on politicians' views while other studies have focused on how voters have been influenced by randomized informational treatments (see, for example, Cruces et al. (2013), Kuziemko et al. (2013), and Karadja et al. (2014)).

The paper also speaks to the literature that studies the impact of incumbency on various outcomes in a RDD set-up. Usually, the estimated outcomes consist of election probabilities, vote shares, and future income streams[6]. As far as I am aware, I am the first to study if there is any impact

[5]Support for redistribution tends to be higher if the benefactors are similar ethnically (Alesina and Giuliano (2011)). However, Finland is ethnically a very homogenous country, with the few immigrants concentrated on a couple of municipalities so I do not consider this channel.

[6]An incumbency effect is often defined as an advantage that an incumbent party or an elected candidate will have in the following election in terms of votes. It is thought to result from an increased access to resources, more funding, higher media visibility, increased voter familiarity and/or increased expertise. Using data from the elections in 2000, 2004, and 2008, Kotakorpi et al. (2014) find that the incumbency effect in the Finnish municipality elections is small: being incumbent increases the probability of

on policy positions as other such studies have not had access to a data that would include policy positions also from losing candidates.

Finally, I contribute to the literature that studies the factors influencing public policies by explicitly focusing on politicians' positions[7]. The public sector size question differs from the redistribution question if we assume that the subsidized services can also be provided by the private sector. The discussion on the political determinants of the public sector size has mainly focused on the bargaining power of the public sector employees and their resulting disproportionate weight in the policy outcomes (e.g. Rattsø and Sørensen (2004) or Enikolopov (2014)) who have an incentive to obstruct reforms.

4.2 Institutional background

There were 304 municipalities in Finland in 2012 (excluding the 16 municipalities of the autonomous area of Åland) and they form a very important tier of the public sector. The GDP share of the municipality level spending is approximately 18% and they employ ca. 20% of the total workforce. The municipal sector accounts for almost two thirds of the total public sector expenditure and investments. The largest components of municipal expenditure are health and welfare services, approximately one half, and education and cultural services, circa one fifth. The constitution provides the municipalities with the autonomy, which is, however, limited by various statutory tasks and by detailed central government legislation.

The municipalities determine the municipal tax rate, the local property tax rate, and the user fees. One half of the average municipal income comes from income tax revenues. Operating revenues constitute almost one third of the municipal income while the state subsidies provide one fifth of the municipal income. However, there is substantial variation in the revenue and cost structures across the municipalities, which is not completely evened out by fiscal equalization by the central state. In practice, most municipalities operate at the minimum permissible level of service provision due to the fiscal constraints. (Moisio et al. (2010))

being elected next time with 2.5%. Hyytinen et al. (2014) fail to find any incumbency effect.

[7]For a survey on redistribution preferences among the population see Alesina and Giuliano (2011)) The redistributional preferences depend on one's position in the income distribution, as first modelled by Meltzer and Richard (1981). However, this relationship places heavy informational requirements and probably only few people are fully aware of their position. Furthermore, the mixed results on the impact of informational treatment (Cruces et al. (2013), Kuziemko et al. (2013) and Karadja et al. (2014)) underline the context-dependence of attitude formation with respect to redistribution.

Finland has a proportional electoral system with open lists, with voters always voting for a single candidate instead of a list. The seats are allocated according to the D'Hondt method. There are four major parties in the parliament: the leftist Social Democratic Party, the conservative Center Party, the conservative National Coalition Party, and the populist Finns Party. In addition, there are four smaller parties: the liberal Greens, the conservative Christian Democrats, the leftist Left Alliance, and the liberal Swedish People's Party. In the municipal elections, parties' seat shares tend to be very stable.

Each municipality is governed by a municipal council. Its size is a step function of the municipality size and the average size at the time of writing is 32 councilors. The candidates with the most votes are elected as councilors while those candidates who do not make it to the council but still get a sufficient number of votes are elected as deputy councilors. Each municipality elects an equal number of councilors and deputy councilors. A majority of the Finnish municipalities are so small that municipal candidates and voters have a fair amount of information on each other.[8]

Since being a councilor is a position of trust instead of a job, councilors do not quit their jobs. The median fee per session paid to councilors was 51 euros in a study in 2009 while the median annual number of sessions was 8 in a survey in 2007 (Kuntaliitto). Not surprisingly, the monetary returns to the Finnish municipal politics are small.[9]

The municipal board is the executive body of a municipality while domain-specific committees and civil servants prepare the proposals to be discussed at the council. There are few statutory committees. The most common domain of a committee is community services, such as zoning, environmental protection, building supervision, and environmental public health. The second most common domain is education and culture. (Majoinen et al. (2008))

Municipal committees used to act as entry points to the municipal politics so that few first-time councilors would enter the municipal council without any previous experience in the municipal politics. While this practice is less common since the 1990s, parties may still allocate committee memberships as consolation prizes to the candidates who did not make it to the municipal council, prioritizing deputy councilors. (Ruostetsaari and Holttinen (2001))

[8] In 2012, the median population was 5839.

[9] Becoming a municipal councilor results in an increase of 1000€ in the subsequent annual earnings (Kotakorpi et al. (2014)).

4.2.1 Voting aid applications

In an open-list system, voters must always choose a candidate to vote for, which makes Finland a fertile ground for voting aid applications. They are interactive questionnaires provided by the Finnish non-partisan main media in the run-up to the elections. The purpose of voting aid applications is to assist voters in choosing a candidate with similar policy preferences. Using a voting aid application is free of charge for both candidates and voters.[10]

My data on the policy positions comes from the voting aid applications of the Finnish public broadcasting company, Yle, in the municipal elections 2008 and 2012. The Yle voting aid application is open only to the candidates for approximately three weeks during the pre-electoral period. During this period, the candidates may reply to closed-ended questions focusing on current policy issues and their replies are saved in a data base. While the response period is pending, each candidate has access only to her own replies, which can be modified during this time but not afterwards.[11] (Naalisvaara (2013))

Once the candidates' response period is over, the voting aid applications become publicly available. A voter can fill in the same questionnaire online and compare his replies to those of the candidates. If the voter finds more matches to his answers, he may infer the information that the candidates have similar views on specific policy issues. (Suojanen (2007))

In practice, most voters do not read every reply of every candidate but, instead, focus on the vote recommendations provided by the voting aid application algorithms. In essence, these recommendation algorithms match a voter to those candidates whose positions are most similar to his, making some assumptions on the voter utility function in order to define what accounts as similar.

Filling in a voting aid application questionnaire is not obligatory for the candidates. The median response rate by municipality in 2008 was 47.8 % of the candidates and, on average, the candidates who did fill in a voting aid application questionnaire received in total 56.2% of the votes of the

[10] In the 2007 parliamentary elections, 13% of the representative sample had become informed of the elections via voting aid applications while the majority had become informed through the TV news, the magazine programs, and the newspapers. In 2007, the use of the voting aid applications correlated statistically significantly with the age and positively with activity and interest in politics. There was no difference in their popularity with respect to the educational achievement, the income or the gender. (Strandberg (2009))

[11] The candidate-specific user names and passwords are passed on to the candidates via the parties' campaign offices while Yle also seeks to contact independent candidates. Yle provided technical assistance both in 2008 and in 2012, while the detailed instructions, the solutions to the most common technical problems, and the helpdesk contact information were attached to the user name and the password. (Naalisvaara (2013))

municipality. The equivalent figures for 2012 were 47.2% of the candidates and 54.3% of the votes. Generally, the voting aid application repliers are politically more successful and experienced, younger and more likely to be women (Appendix Table A.1-Table A.3).

4.2.2 Characterizing the treatments

There are two discontinuities: one between the councilors and their deputies and another one between the deputies and those candidates who were not elected even as deputies. The treatment consists of the skills and experiences gained by councilors relative to deputies and by deputies relative to unelected candidates at the first and second threshold, respectively.

At the first threshold, the control group consists of the deputies who got most votes among the deputies and almost made it to the council. At the second threshold, the treatment groups consists of the deputies who got least votes among the deputies and almost were not elected as deputies. Because there is a deputy for every councilor, the number of deputies equals that of the councilors. As a result, the control group of the first threshold does not overlap with the treatment group of the second threshold.

Councilors have a right of vote in the municipal council sessions and they are provided with the notices of meeting, the agenda, and the motion of the sessions. Depending on the municipality, they may also be prioritized as the members of the domain-specific committees. (Majoinen et al. (2008))[12]

Deputies may also serve in the domain-specific committees (Majoinen et al. (2008)). Thus, a deputy has probably a more narrow view on the municipal activities than a councilor (Ruostetsaari and Holttinen (2001)). Deputies are likelier to have a decision-making role in the council sessions in the larger municipalities which have more councilors who are also members of parliament and, thus, more often unable to attend the sessions. (Majoinen et al. (2008))[13]

Both councilors and deputies have a right to request for information which is not yet public but which is necessary for a position of trust. However, I hypothesize that councilors are more aware of any relevant information and, thus, are more likely to ask for it. Councilors are somewhat more salient to the general public than deputies but still not very much so.

[12]Being a councilor is not a job and neither should being elected change the beliefs about the future income mobility (cf. Kotakorpi et al. (2014)). Thus, this seems an unlikely channel for any changes in the attitudes.

[13]A limitation of my study is that I do not have data on committee memberships or on council absenteeism.

4.3 Data

The policy position data consists of the municipal elections candidate responses in the voting aid applications of the Finnish public broadcasting company. The data on the 2008 elections is provided by the Finnish Social Science Data Archive while Yle provides the data on the 2012 elections as an open data in their web site (Yle 2012). In addition, I use electoral data by the Ministry of Justice and municipality-level background variable data by the Statistics Finland and the Ministry of Employment and the Economy.

The voting aid application data includes two types of questions. In one type, the repliers are asked to which degree they agree or disagree with a statement. The attitudes are measured on a scale from zero to four where zero implies strong disagreement and four means strong agreement, while the middle value of two corresponds to "Don't know". In another type, the repliers are asked to choose a limited number of preferred answers from a larger set of options.

In the 2008 voting aid application, the focus was on which municipal service to privatize while, in 2012, the candidates were asked which municipal services they would prioritize in terms of more funding. In both years, candidates were asked to choose how they would improve the fiscal balance of the municipalities by choosing two measures from a list. However, this list is mainly not overlapping across the years. (For the list of the questions, see Appendix.)

The electoral results containing the turnout, the parties' vote and seat shares, and the candidates' vote shares in each municipality are provided by the Ministry of Justice. The data on earlier political experience in 1996 and in 2000 comes from Kotakorpi et al. (2014). In addition, I use municipal-level background data in order to investigate the possible heterogenous effects. This data consists of parties' seat shares, population, age structure of population and electorate, and unemployment rate. The unemployment rate data is municipality-specific and provided by the Ministry of Employment and the Economy. It is based on the number of jobseekers, most of whom are unemployed, registered at the government employment and economic development offices. I define the unemployment rate as an average of the monthly unemployment rates of 12 months preceding the elections, October 2007 - September 2008 and October 2011 - September 2012, respectively. The data source for the remaining municipality-level variables is the Statistics Finland.

4.3.1 Policy indices

For each year, I construct two summary indices using a procedure described in Anderson (2008). In addition to decreasing the multiple-testing problem, these summary indices also allow me to study general effects and, thus, increase the statistical power. The indices I consider consist of a preferred amount of redistribution and a preferred size of the municipal sector.[14] Unsurprisingly, a lower income and being female predict a stronger support for redistribution and for a larger public sector. However, the overwhelmingly strongest predictor is the political affiliation, with conservative candidates opposing redistribution or a larger public sector (Table 4.1).

For each index, I first switch the scales, if needed, so that a higher value of a variable belonging to a group always implies similar preferences. For example, a higher value of any variable grouped with the redistribution index indicates a stronger preference for more redistribution. Next, I demean the outcomes and convert them into effect sizes by dividing them with the standard deviation of the control group. Demeaning results in a vector $\tilde{\mathbf{y}}_{ij}$ for the domain j and politician i. For councilors, the control group consists of the deputies while the control group of the deputies are non-elected candidates. Finally, I create the summary index $\bar{s}_{ij}$ by weighting the column vector of demeaned outcomes as follows:

$$\bar{s}_{ij} = (\mathbf{1}'\hat{\mathbf{\Sigma}}_j^{-1}\mathbf{1})^{-1}(\mathbf{1}'\hat{\mathbf{\Sigma}}_j^{-1}\tilde{\mathbf{y}}_{ij}) \tag{4.1}$$

where $\hat{\mathbf{\Sigma}}_j$ is the covariance matrix and $\mathbf{1}$ is a column vector of ones.

The 2012 redistribution index consists of eight questions. Preferring more redistribution implies wanting to balance the municipal budget by increasing taxes and by issuing debt[15] instead of cutting services or raising municipal user fees[16]. It also means disagreeing with the statement that it is too easy to gain access to social welfare, supporting a higher municipal property tax and more progressive municipal user fees, and opposing higher health center user fees.

The 2012 public sector size index sums up nine policy positions. Preferring a larger municipal sector implies opposing cutting services, selling off municipal property or privatizing municipal health services. It also means supporting an introduction of a universal right of the elderly to be admitted to a retirement home as well as a universal right of the children to be

[14] The complete list of the voting aid application questions is in Appendix including a note if a question contributes to an index and, if yes, which one.

[15] I assume that the issued debt will be disproportionately paid off with the taxes levied on middle- and upper-class.

[16] User fees are based on the amount of use and, thus, are not progressive so a pro-redistribution position implies opposing higher user fees.

admitted into the kindergarten even if one of its parents is a home-maker[17]. In addition, it implies not wanting to forbid the nomination of the municipal employees as members of the executive board and not wanting to shorten the five-year long protection period against dismissal that municipal employees currently enjoy after a municipal merger[18].

The 2008 redistribution index consists of six questions. Preferring more redistribution means opposing higher user fees or the introduction of new user fees, supporting more progressive municipal user fees, a higher residential property tax or a higher holiday house tax rate for the municipality, and a disagreement with the statement that it is too easy to gain access to social welfare.

The 2008 public sector size index consists of six questions. Preferring a larger municipal sector implies opposing any privatization and supporting the universal right of the children to be admitted into the kindergarten even if one of its parents is a home-maker. In addition, it means choosing tax hikes instead of municipal services cuts, if necessary, as well as a disagreement with the statement that the municipality has so many employees that their number should be cut down. Finally, it stands for opposing selling off municipal property or a municipality merger as a way to increase the municipal revenue.

4.3.2 Measuring political style

As for the evolution of political style, I consider if the office-holders strive for more ambiguity by avoiding extreme positions. In addition, I study if they become more aligned with the national party stance, the regional overall stance or the regional party stance.

The extremism index equals the share of the policy positions for which the candidate has chosen "Strongly agree" or "Strongly disagree" for the questions using the five-step scale. The main version of the moderation index consists of the share of the policy positions for which the candidate has either chosen "Don't know" or has not answered.[19]

[17] A universal right to admit a child to a municipal kindergarten creates a larger demand for the municipal labor and so would the introduction of a universal right to be admitted to a municipal retirement home.

[18] At present, municipal employees have a dismissal period of five years when two or more municipalities merge, which contrasts to the private sector dismissal periods of 3-6 months. On the other hand, the large part of the potential savings caused by a municipality merger are due to lower personnel costs once the dismissal periods run out, which creates a conflict between the municipal employees and others.

[19] Another version has the share of the policy positions for which the candidate has chosen "Don't know". Finally, I consider the share of the policy positions for which the candidate has chosen "Don't know", "Somewhat agree" or "Somewhat disagree" or has not answered.

Not only may experience make politicians generally more moderate, such a behavior is incentivized in this set-up also by the structure of the voting aid applications. Few voters bother to read through the responses of every single respondent but, rather, focus on the top vote recommendations provided by voting aid application algorithms. These algorithms match responses of voters with those of politicians so that closer a candidate's response is to a voter's responses, more likely she will show up as a top vote recommendation. Then, closer a candidate is to a larger number of users, more likely she is to be seen by them as a top recommendation.

As for the similarity with other politicians, I measure the alignment with the positions of others by a Mahalanobis distance from party average, district average or district-party average. A Mahalanobis distance measures how far in terms of standard deviations a vector is from another vector, which here contains the average policy positions. For example, the Mahalanobis distance from the national party average position is:

$$d_{ip} = (\mathbf{x}_{ip} - \boldsymbol{\mu}_p)' \hat{\boldsymbol{\Sigma}}_p (\mathbf{x}_{ip} - \boldsymbol{\mu}_p) \tag{4.2}$$

whereby i refers to a candidate and p stands for a party. The vector $\mathbf{x}_{ip}$ provides the policy positions of the candidate while the vector $\boldsymbol{\mu}_p$ shows the average policy positions of her party. Finally, the variance-covariance matrix is $\hat{\boldsymbol{\Sigma}}_p$.

Weighting the distance between a candidate's policy position vector and an average policy position vector with the covariance matrix implies overweighting the outliers of the low-variance dimensions relative to the outliers of high-variance dimensions. In effect, it is more sensitive to positions far from the consensus opinions than to positions for which there exists a large variety of opinions.

4.4 Econometric strategy

Studying the impact of being in office requires a suitable control group. A randomly drawn electoral loser is probably not a valid control for a randomly drawn winner because there are several confounding factors. For example, in the present data, electoral winners are older, have more earlier political experience, are likelier to obtain financial support from their party for the elections campaigns and are likelier to be municipal employees than electoral losers.

Hence, it would be problematic to simply regress the policy position on

political experience. There is a reverse causality issue because some policy positions would be much more popular and allow a candidate to win more elections and, thus, to gain more experience. In addition, there is a question of omitted variables, influencing jointly the amount of tenure and policy positions. An obvious candidate is ageing so that older politicians tend to have a longer tenure. A more nuanced estimation equation would include additional variables but issues of reverse causality would still remain. For example, since selection into political parties is not random, a certain policy position and a change in it are very likely to cause the choice of the party and, consequently, the party line to be followed.

I solve the identification issue by using a regression discontinuity design, comparing policy positions of the close winners and the close losers of the previous elections[20]. RDD has been used to get around the problem of non-random assignment into a political organ and it is based on the assumption that, close to a determining threshold, an individual cannot exactly influence if he is treated or not. In addition, only the treatment status should change discontinuously at the threshold while other variables should behave smoothly around it. If these assumptions hold, two individuals close to the threshold and on its opposite sides should not differ except for their treatment status.

4.4.1 Defining the forcing variable

Any RDD strategy hinges on the definition of the forcing variable, which measures the distance from the relevant threshold. In the sharp regression discontinuity design, once the forcing variable is above the threshold, an individual is treated, while those below are not.

The Finnish electoral system has proportional representation, which makes measuring the electoral closeness more complicated than in a straightforward set-up of two candidates competing for a single seat in a majority system. No equivalent threshold of 50% exists in a proportional representation context and various ways to define the distance measure have been used. They can be broadly defined as analytical and simulation-based solutions.

Folke's (2014) analytical solution focuses on finding the smallest vote changes leading to seat changes between parties. If the required vote change for a party is sufficiently small, he defines that party as a close winner or a

[20]This approach was pioneered by Thistlethwaite and Campbell (1960). For surveys, see Lee and Lemieux (2010) and Imbens and Lemieux (2008). Its use in political economics has proliferated since Lee et al. (2004) and Pettersson-Lidbom (2008), especially in the study of incumbency effects.

close loser. Lundqvist (2011) applies a similar approach to individual candidates, utilizing the structure imposed by the Swedish closed-list system. In her setup, a candidate is a close winner if her party would require only one or two seats more for her to be elected while she is a close loser if her party would need to lose only one or two seats for her not be elected.

The simulation-based approach by Kotakorpi et al. (2014), who also use Finnish municipal elections data, defines the relevant threshold by simulating elections with bootstrapping. They create a measure of how many resampled elections a candidate wins and use it as a measure of electoral strength, which allows candidates to potentially compete with any other candidate in the same municipality. Freier and Odendahl (2012) base their simulation-based approach on perturbing the realized vote vectors and by defining a party as a close loser or a closer winner if perturbations change its electoral status sufficiently frequently.

My threshold for winners is the within-party vote share of the first candidate to be left out while the threshold for losers is the within-party vote share of the last candidate to get in. In effect, I assume that the relevant competition takes place within a party, with the ideologically close politicians being the main competitors. I believe that the assumption is reasonable from the point of view of the electorate, so that a voter first chooses to a party to vote for and, then, picks a candidate within the party.

The forcing variable for the winners is:

$$X_{ipm|WINNER} = \frac{v_{i|WINNER} - v_{pm,\text{FIRST LOSER}}}{V_{pm}} \tag{4.3}$$

in which i refers to the candidate, p stands for the party, and m is the municipality (for the distribution within the 7.5 percentage points from the threshold, see Figure 4.1, and for the total distribution see Appendix Figure A.1). The votes garnered by a candidate are v_i while the total votes won by a party in the municipality are V_{pm}. The losing candidate who gets most votes receives $v_{pm,\text{FIRST LOSER}}$ votes. All the variables are party-municipality specific, except when a party is electorally allied with one or more parties, in which case the party is replaced by the alliance.

The forcing variable for the losers is:

$$X_{ipm|LOSER} = \frac{v_{i|LOSER} - v_{pm,\text{FIRST WINNER}}}{V_{pm}} \tag{4.4}$$

and the formula reads as in (1) except that the winning candidate with the least votes gets $v_{pm,\text{FIRST WINNER}}$ votes (for the distribution within the

7.5 percentage points from the threshold, see Figure 4.2, and for the total distribution see Appendix Figure A.2).

Using within-party vote shares results in an overlap in the case of ties whereby two or more candidates of the same party have an equal number of votes not sufficient for all of them to be elected. Thus, they all have the same within-party vote share and the tie is broken with a lottery.[21] In such cases, I perturb the vote margin of zero by adding 0.00000000000001 to the candidates who won the lottery and by subtracting the same amount from the candidates who lost it[22].

4.5 Results

I start by investigating the incumbency effect in terms of re-running probability, re-election probability, total vote share, and campaigning behavior and then proceed to study if there is an impact on policy indices described in more detail in 4.3.1 Policy indices. Finally, I consider if there are incumbency effects on moderation or alignment with the national party positions, regional overall positions or regional party positions.

I pool the data from the elections in 2008 and in 2012 when studying re-running probability, re-election probability, total vote share, and campaigning behavior since the definitions of these outcomes are identical in each year. In contrast, I do the estimations for the policy positions, moderation and alignment with the average positions separately for each year because these outcome variables summarize the policy positions that were almost all different across the elections.

For all the outcomes, I estimate the following equation, using the optimal Imbens-Kalyanaraman (2012) bandwidths in the main specifications:

$$y_{ip} = \alpha + \tau D + \beta_l \cdot (X_{ipm} - c_p) + (\beta_r - \beta_l) \cdot D \cdot (X_{ipm} - c_p) + \varepsilon_{imp} \quad (4.5)$$

in which y is an outcome, p stands for a party, m is a municipality while l and r refer to the left and right sides of the party-specific threshold, c_p. The treatment, D, is being elected as a councilor or as deputy and the estimated treatment effect of experience is τ. The forcing variable, X, is the within-party vote share, accounting for the electoral alliances. Notably, there are two thresholds: one for being elected as a councilor and another one for deputies. The specification allows for two different separate linear

[21] The same mechanism holds both at the threshold for the councilors and at the threshold for the deputies, for more discussion see Hyytinen et al. (2014).

[22] There were 224-338 such cases in each elections.

trends, β_l and β_r, for the both sides of the threshold.

As recommended by Gelman and Imbens (2014), I do not use higher-order global polynomials. Furthermore, the forcing variable is very concentrated, as illustrated by Figure 4.1 and Figure 4.2, so using the whole range in inference instead of a more limited range would not increase the number of observations very much.

The councilors who barely won are more likely to run again and this effect is 30% of the standard deviation (column (1) in Table 4.2) while there is no equivalent effect for the deputies (column (6) in Table 4.2). Importantly, there is no equivalent jump for the repeated voting aid application usage (columns (2) and (7) in Table 4.2).

On the face of it, there would seem to be some incumbency advantage in being an incumbent councilor (column (3) in Table 4.2). However, this result is not robust as using half of the optimal bandwidth reduce the coefficient and makes it insignificant.[23] Both closer councilors and close deputies are likelier to get funding from the party, which is slightly more pronounced for the close deputies (columns (1) and (4) in Table 4.3).

As for the policy positions, the coefficients are around zero and I can rule out an effect of larger than 20% of the standard deviation, so I do not find evidence for incumbency effect on policies (Table 4.4). Next, I study the pronounced effect of experience by focusing on the incumbents without any previous political experience whatsoever. For the upper threshold, I define the relevant political experience as having been elected as a councilor in 1996 or later. For the lower threshold I define it as having been elected as a councilor in 1996 or later or as a deputy in 2000 or later.

In 2012, incumbent councilors without earlier political experience start supporting a smaller public sector (column (6) in Table 4.5) but not so in 2008 (column (6) in Table 4.6). There is no impact on the other policy index (Table 4.5 for 2012 and Table 4.6 for 2008) in either year. The coefficients are rather imprecise so that I can rule out an effect larger than 40%.

Next, I find that tenure does not have an impact on policy moderation (Table 4.7) and, for the councilors, this result is very precise as I am able to rule out an impact larger than 10% of the standard deviation, irrespective if I study this question by focusing on the share of the extreme responses or on that of "Don't know" responses. For the deputies, I can rule an impact larger than 20% of the standard deviation.[24] When comparing politicians

[23] All the results in Table 4.2 are for all the candidates, whether they used the voting aid application or not but the results are robust to redoing the analysis for the voting aid users only.

[24] The results are also robust to using other moderation measures discussed in more detail in 4.3.2 Measuring political style.

with and without earlier political experience, I can rule an effect larger than 25% of the standard deviation in 2012 (Table 4.8) and an effect larger than 100% of the standard deviation in 2008 (Table 4.9).

Finally, I investigate if politicians become more prone to align with national party average positions, general regional average positions or regional party average positions using Mahalanobis distances and again I fail to find an impact (Table 4.10 for 2012 and Table 4.11 for 2008). This time, I can rule out an impact larger than 20% of the standard deviation.

When further focusing on the role of the earlier political experience, inexperienced deputies become more aligned with the national party average positions in 2012 and this effect is ca. 17% of the standard deviation (Table 4.12). They become also more aligned with general regional average positions as well as regional party positions but these coefficients are not significant. In 2008, inexperienced deputies become more aligned with the general regional average positions and this effect is 20% of the standard deviation. The point estimates suggest that they also become more aligned with the national party average position but now the coefficient is not significant (Table 4.13 for 2008). For others, I can rule out an effect larger than 40% of the standard deviation (in 2012) and 100% of the standard deviation (in 2008).

4.5.1 Heterogenous effects

This general overall lack of an impact may be due to heterogeneity whereby the opposite impacts cancel each other out. Next, I consider heterogeneity by the municipality features. My hypothesis is that tenure may imply different things depending on the characteristics of the municipality. I focus on fiscal constraints, which I proxy by the change in the pre-electoral 12-month municipal unemployment rate between the municipal elections. I only do these estimations for 2012 since the unemployment rates were stable or decreased during the term 2004-2008. In addition, I also consider if there are differences by the size of the municipality.

In the municipalities with increasing unemployment[25], councilors become more aligned with national party average positions, regional general average positions as well as regional party average positions (Appendix Table A.6). In addition, there is some indication that deputies of such municipalities support smaller public sector (Appendix Table A.4) and are less likely to choose extreme positions (Appendix Table A.5). There are no such effects

[25] I classify the municipal unemployment rate as increasing if its increase is in the highest quartile of unemployment rate percentage points change, increasing at least 2 percentage points from 2008 to 2012.

in the municipalities with a stable or less steeply increasing unemployment rate (Appendix Table A.4, Table A.5 and Table A.7).

As for the differences by the municipality size, I do not find an effect (Appendix Table A.8-Table A.11 for 2012 and Table B.1-Table B.4) and, furthermore, sample sizes for the candidates from the municipalities with less than a medium-sized electorate are small.

4.6 Robustness checks, balance, and attrition

The McCrary tests (McCrary (2008)) investigating the smoothness of the two forcing variables are shown in Figure 4.3 for the councilors vs. deputies threshold and in Figure 4.4 for the deputies vs. non-elected threshold. They work for sufficiently small bandwidths of ±2.5% or less, such as the optimal Imbens-Kalyanaraman ones.

The results are also robust to different bandwidth choices. I include the 50% multiples of the optimal Imbens-Kalyanaraman bandwidths in all the main specifications as well as in the specifications investigating heterogenous effects and these multiples does not change the results. In addition, Figure A.3-Figure A.8 (for 2012) and Figure B.1-Figure B.6 (for 2008) in Appendix show that the results are robust to a wide range of bandwidths for the both thresholds and all the outcomes. The results do not change when using the optimal Calonico-Cattaneo-Titiunik bandwidths (Calonico et al. 2014), see Appendix Table A.12-Table A.14 for 2012 and Table B.5-Table B.7 for 2008. However, the bandwidths more than double compared to the optimal Imbens-Kalyanaraman ones even up to ±6.5% around the upper threshold.

As for the pre-treatment policy positions, I consider redistribution and public sector size indices, Mahalanobis distance measures from national party average positions and general regional average positions, respectively, as well as the share of extreme and moderate responses in 2008 conditional on rerunning in 2012. The pre-treatment policy position balance cannot be investigated for the candidates running in 2008 since there is no policy position data for 2004. For the candidates running in 2012, the balance seems generally reasonable (Appendix Table A.15, for the equivalent graphs see Appendix Figure A.9 and Figure A.10), however, close councilor winners are slightly more likely to have extreme responses while close deputies are a bit more likely to have moderate responses. In both cases, the effect is 10% of the standard deviation.

I also consider the balance of the socio-economic and political pre-treatment variables in the previous elections (Appendix Table A.16 and Table A.17for

2008 and Table B.8 and Table B.9 for 2004, for the equivalent graphs see Appendix Figure A.9-Figure A.14 for 2008 and Figure B.7-Figure B.10 for 2004). In 2008, close councilors do have a higher campaign expenditure, however, the overall campaign expenditure is still small for all the candidates, with 82% spending 0-500 euros. Close councilors are also two years younger, a bit less likely to be well-off or to belong to the conservative Center Party and slightly more likely to belong to the liberal Swedish People's Party. In 2004, close deputies are slightly less likely to belong to the populist Finns Party.

To conclude, when it comes to the balance my main focus lies on the pre-treatment policy positions and they seem to be reasonably balanced. Policy indices and distances from national party average positions and general regional average positions are balanced, except for a small effect on the extreme responses. In addition, my main emphasis lies on the policy positions in 2012 since the access to the pre-treatment policy positions from the 2008 elections allows for a more transparent analysis than for the candidates running in 2008.[26]

Finally, I investigate if including control variables changes the results. If the set-up is valid, the results should not change but their inclusion might decrease the standard errors. The control variables for the policy index changes are the variables most likely to be correlated with respective preferences according to the previous literature (cf. Alesina and Giuliano (2011)). These include right-left affiliation, age, gender, approximate income group, having a university degree[27], and being a municipal employee, which are also correlated with the policy indices in this data (see Table 4.1). The previous literature provides less of a guideline as to which variables could be correlated with policy moderation or alignment with average positions so I include controls for age, gender, having a university degree, and being a municipal employee. None of the earlier results is changed by controlling for the above mentioned variables (see Table A.18-Table A.20 for 2012 and Table B.10-Table B.12 for 2008).

4.6.1 Attrition

While the regression discontinuity set-up itself is cleanly identified, politicians do self-select into whether or not they re-run and all the results are conditional on running again. The main concern is selective attrition, because it might attenuate the results if those politicians who feel uncomfort-

[26] A deterioration in the municipal fiscal constraints during the term 2008-2012 should also strengthen an informational treatment compared to the term 2004-2008.

[27] Not for 2008 as the data on the educational achievement starts from 2012.

able with political climate or fiscal constraints do not run again. I hypothesize that this selective attrition could disproportionately affect councilors because they are the ones who have to face the constraints.

Close councilors are more likely to re-run while there is no difference in the re-running probability at the lower threshold (columns (1) and (6) in Table 4.2). The voting aid application usage is also voluntary, which provides another potential source of attrition. However, there is no difference in the probability of the repeated voting aid application usage (columns (2) and (7) in Table 4.2).

Since I do not have data on why candidates re-run, I can at best study if pre-treatment variables predict re-running. When looking at the total candidate population, the most important factor in predicting re-running is the earlier electoral success: councilors are most likely to run again, followed by the deputies (columns (1) and (2) in Appendix Table A.21 for 2012 and Table B.13 for 2008). The same result holds for the repeated voting aid application usage (columns (1) and (2) in Appendix Table A.22). A larger share of extreme positions in the previous elections predicts a smaller probability of re-running or a repeated voting aid usage but its impact is dwarfed by that of the electoral status. A preference for a larger public sector predicts a larger probability of a repeated voting aid usage but, again, its impact is small compared to the electoral status (columns (1) and (2) in Appendix Table A.22).

When I limit the sample to the candidates who are close to the relevant threshold in 2008, policy positions generally do not have power in predicting the repeated voting aid application usage (Appendix Table A.23 and Table A.24 for 2012). The sole exception is that the candidates who barely made it as deputies in 2008 are slightly more likely to be pro-redistribution and the effect is 14% of the standard deviation.

4.7 Conclusions

In this paper, I study if there is an incumbency effect on pre-electoral policy positions in an RDD set-up. I investigate the impact on the policy positions regarding redistribution and public sector size. I also consider the share of extreme and moderate positions as well as the distances from national party position averages, general regional position averages and regional party position averages, respectively.

Political experience does not make politicians change their positions in terms of policy indices or position moderation nor do they become more aligned with the average positions. In the main estimations, I can rule out

effects larger than 20% of the standard deviations. The monetary returns to the Finnish municipal politics are low and, consequently, the incentives may be too low-powered for the politicians to make large changes in their positions. Selective attrition could be a further explanation but, at least in 2008, the electoral success far overwhelms other factors in predicting who runs again in 2008.

When investigating heterogenous effects, I find that councilors without earlier political experience support a smaller public sector size in 2012 but not in 2008, which could be due to the fact that the economy deteriorated over the term 2008-2012 and improved over the term 2004-2008. I also find some evidence that deputies without earlier political experience become more aligned with average positions and that politicians living the municipalities with an increasing unemployment rate become more aligned with the national party average policy positions.

Due to multiple-testing concerns, the results on the heterogenous effects are rather tentative since they might be false positives. On the other hand, since politicians' positions do not change in political economy models, except for lame ducks no longer constrained by re-eligibility concerns, there are no earlier theoretical results to lean on to the best of my knowledge. This fact complicates focusing on a selected few variables so the existence of false negatives is also a possibility.

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Figure 4.1: Distribution of the forcing variable: Municipal councilors vs. deputies

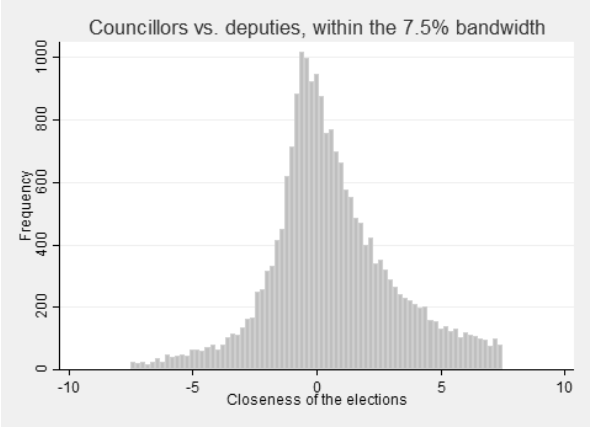


Figure 4.2: Distribution of the forcing variable: Deputies vs. non-elected candidates

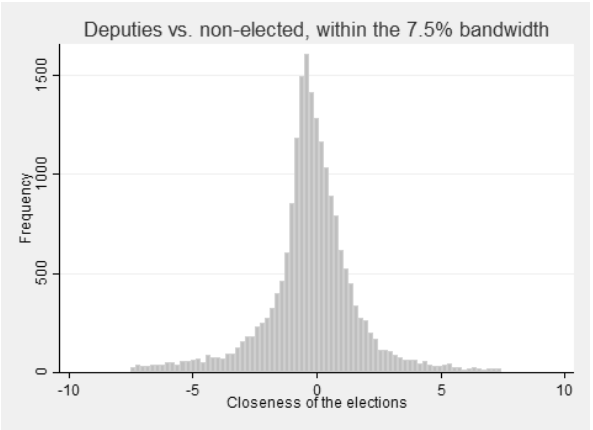
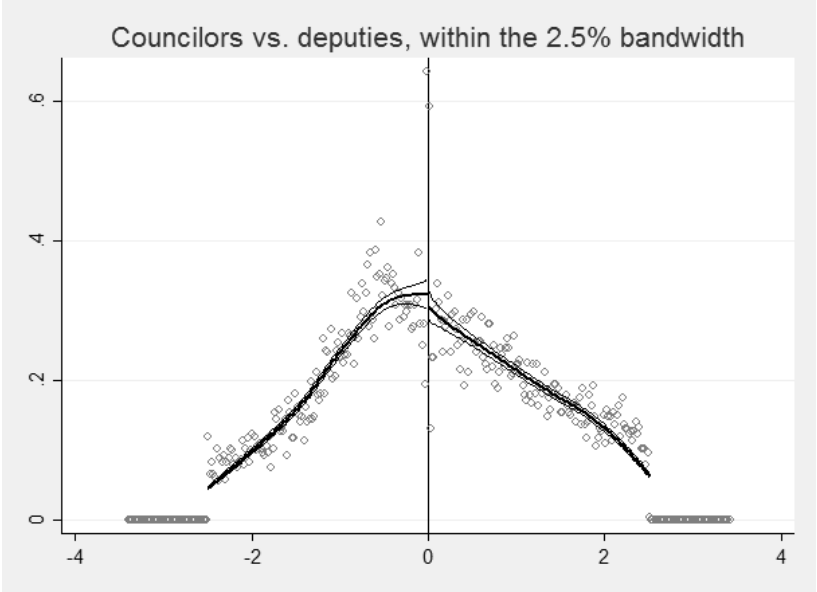
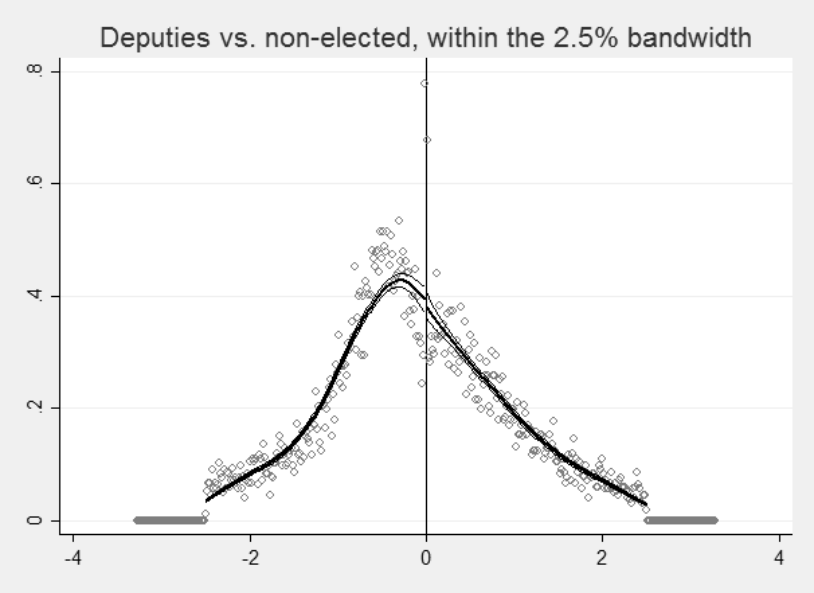


Figure 4.3: Continuity of forcing variable: Municipal councilors vs. deputies



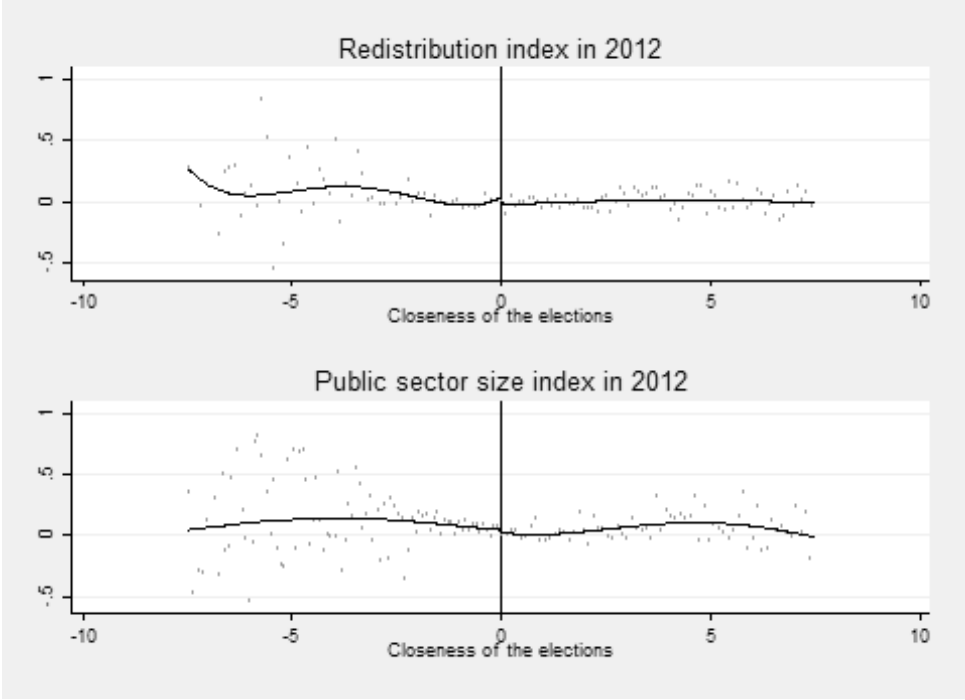
Note: The McCrary statistics is -0.055 (0.047).

Figure 4.4: Continuity of forcing variable: Deputies vs. non-elected candidates



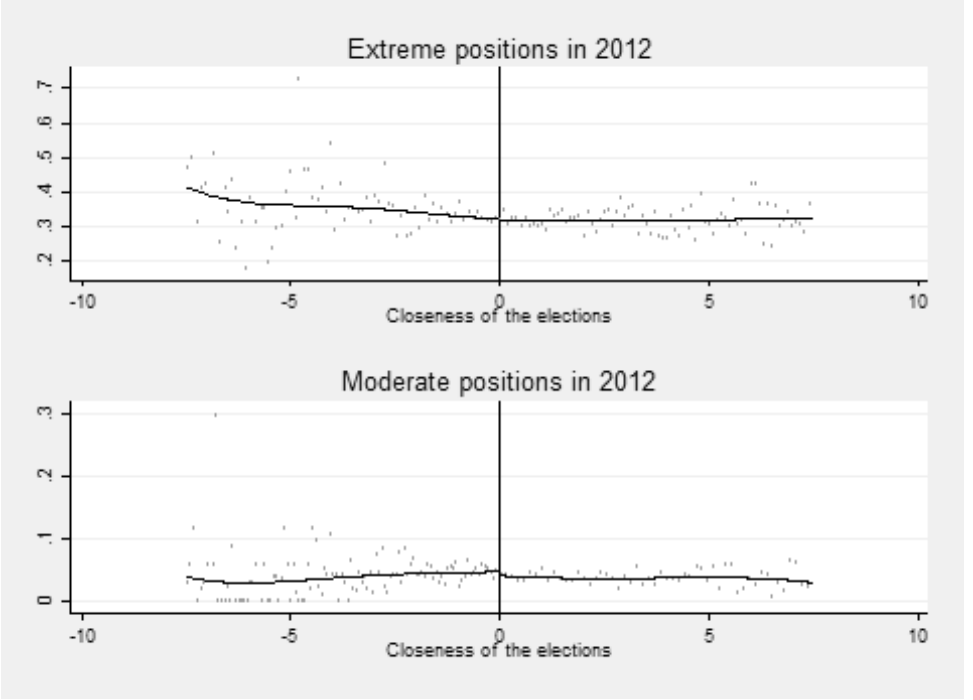
Note: The McCrary statistics is -0.025 (0.044).

Figure 4.5: Incumbency effects on the policy indices in 2012: Municipal councilors vs. deputies



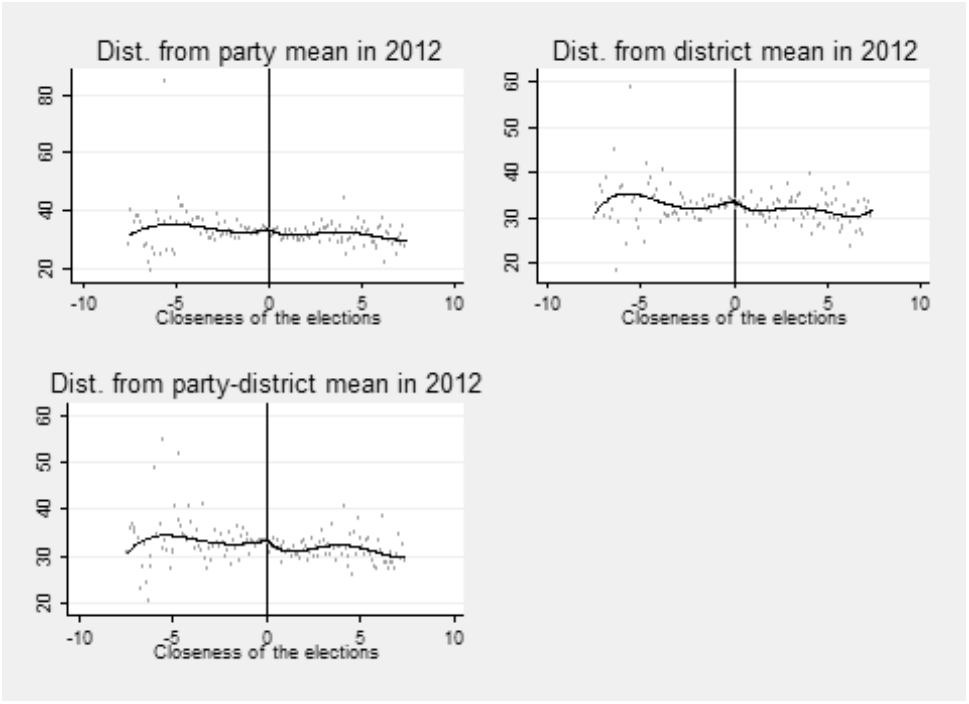
Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support within each domain.

Figure 4.6: Incumbency effects on the ambiguity indices in 2012: Municipal councilors vs. deputies



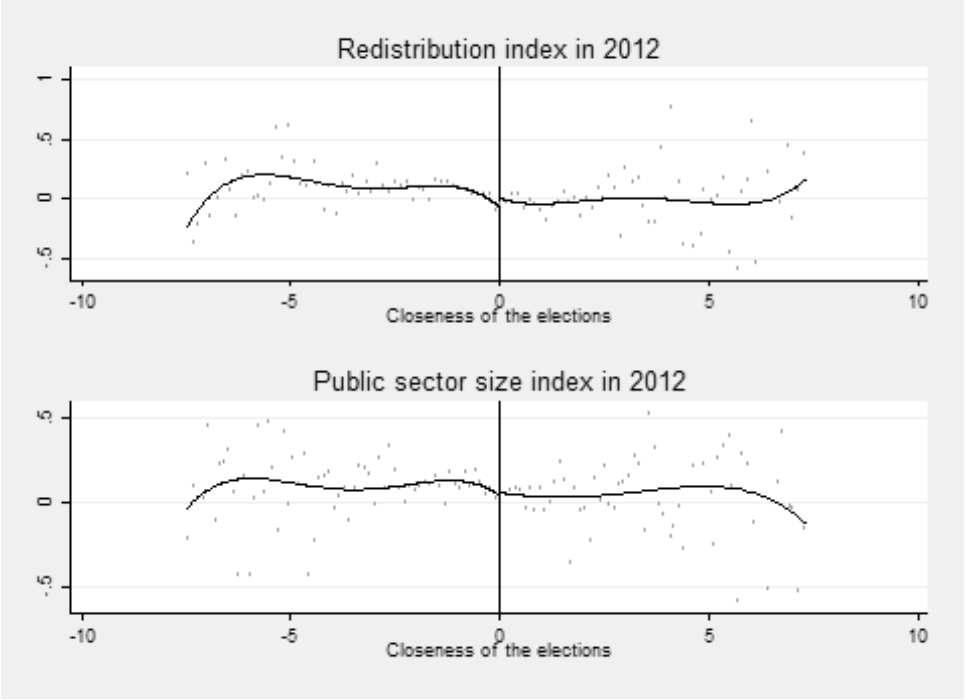
Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses.

Figure 4.7: Incumbency effects on the party distance measures in 2012: Municipal councilors vs. deputies



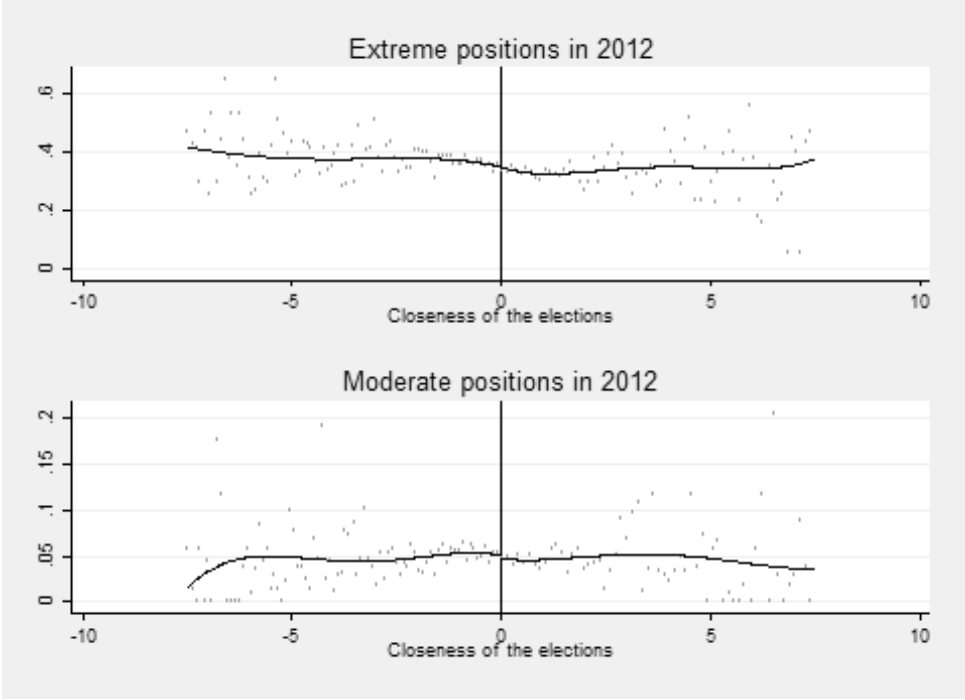
Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions.

Figure 4.8: Incumbency effects on the policy indices in 2012: Deputies vs. non-elected candidates



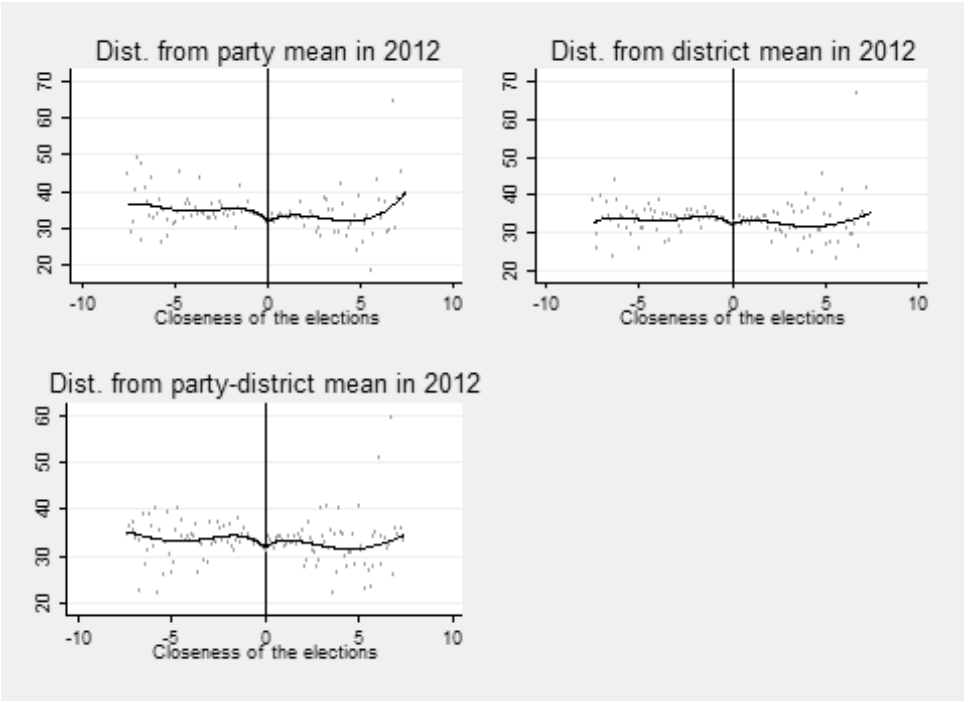
Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support within each domain.

Figure 4.9: Incumbency effects on the ambiguity indices in 2012: Deputies vs. non-elected candidates



Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses.

Figure 4.10: Incumbency effects on the distance measures in 2012: Deputies vs. non-elected candidates



Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions.

Table 4.1: Correlation of summary indices and socio-economic factors, pooled

Dep. var.	Pro-redistribution	Larger public sector
High-income	-0.0213***	-0.0587***
	(0.0060)	(0.0080)
Low-income	0.0157**	0.0178**
	(0.0063)	(0.0074)
Female	0.0203***	0.0317***
	(0.0046)	(0.0047)
Age	0.0008***	-0.0013***
	(0.0003)	(0.0003)
Right	-0.3065***	-0.2937***
	(0.0097)	(0.0130)
Constant	0.1290***	0.3002***
	(0.0134)	(0.0103)
Observations	37,455	38,044
R-squared	0.1140	0.1155

Note: Income groups are based on the self-reported occupational category. I classify a candidate as having "high income" if he has a managerial position or is a senior white-collar worker. "Middle-income" is the omitted category and refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with "low income" are retired, home-makers, farmers, students or unemployed. "Right" refers to the National Coalition or the Center Party. Both specifications control for the municipality effects. Standard errors clustered at the municipality level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4.2: Incumbency effect on re-running, election probability and vote shares, pooled

	(1)	(2)	(3)	(4)	(5)
Dep. var.	Prob. of running$_t$	Prob. of using VAA$_t$	Prob. of being elected as: councilor$_t$	deputy$_t$	Vote share (%)$_t$
Sample			Councilors		
Elected$_{t-4}$	0.0124	-0.0122	0.0607**	-0.0428**	0.0241
	(0.0119)	(0.0136)	(0.0254)	(0.0207)	(0.0330)
Elected$_{t-4}$	0.1500***	-0.0196	0.0219	-0.0484*	0.0201
(½ bandwidth)	(0.0181)	(0.0202)	(0.0347)	(0.0279)	(0.0475)
Observations	24,793	20,835	7,134	9,542	7,390
Optimal bandwidth	1.987	1.492	0.806	1.147	0.839
	(6)	(7)	(8)	(9)	(10)
Sample			Deputies		
Elected$_{t-4}$	0.0172	0.0000	-0.0269*	-0.0342	-0.0447**
	(0.0160)	(0.0134)	(0.0139)	(0.0311)	(0.0200)
Elected$_{t-4}$	0.0009	-0.0138	-0.0274	-0.0484	-0.0491*
(½ bandwidth)	(0.0213)	(0.0165)	(0.0182)	(0.0398)	(0.0280)
Observations	20,433	21,238	6,282	4,477	5,774
Optimal bandwidth	0.679	0.709	0.485	0.345	0.445

Note: The results refer to all the candidates in both years, not just the voting aid application respondents. A vote share is defined as a percentage and its mean is 0.82% in 2012 and 0.86% in 2008. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.3: Incumbency effect on the election campaign, pooled

	(1)	(2)	(3)
Dep. var.	Funding by party$_t$	Campaign expenditure$_t$	Ext. funding$_t$
Sample		Councilors	
Elected$_{t-4}$	0.0697***	0.0990	0.0835
	(0.0212)	(0.0639)	(0.0637)
Elected$_{t-4}$	0.0623**	0.0885	0.0225
(½ bandwidth)	(0.0283)	(0.0803)	(0.0883)
Observations	7,135	5,109	5,413
Opt. bandwidth	1.814	1.171	1.371
	(4)	(5)	(6)
Sample		Deputies	
Elected$_{t-4}$	0.0891**	0.0408	0.1410
	(0.0370)	(0.0404)	(0.0956)
Elected$_{t-4}$	0.1002**	0.0111	0.1987
(½ bandwidth)	(0.0501)	(0.0515)	(0.1294)
Observations	3,534	5,661	3,506
Opt. bandwidth	0.516	1.086	0.584

Note: Funding from party equals one if the party was named as the most important external source of funding. Campaign costs are divided into ten categories (0-500€, 501-1000€, 1001-2000€, 2001-3000€, 3001-5000€, 5001-7000€, 7001-10000€, 10001-15000€, 15001-20000€ and over 20000€). Exterior funding refers to the share of external campaign funding and is divided into five categories (0%, 1-20%, 21-50%, 51-80%, 81-100%). Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.4: Incumbency effect on the policy indices

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Redist.	Size	Redist.	Size	Redist.	Size	Redist.	Size
Sample	Councilors, 2012		Deputies, 2012		Councilors, 2008		Deputies, 2008	
Elected_{t-4}	-0.0310	-0.0340	0.0367	0.0297	-0.0064	-0.0163	-0.0244	0.0416
	(0.0337)	(0.0338)	(0.0491)	(0.0582)	(0.0224)	(0.0343)	(0.0401)	(0.0474)
Elected_{t-4}	-0.0628	-0.0401	0.0648	-0.0008	-0.0103	-0.0490	-0.0163	0.0776
(½ bandwidth)	(0.0455)	(0.0422)	(0.0710)	(0.0749)	(0.0294)	(0.0452)	(0.0621)	(0.0578)
Observations	2,881	3,190	2,053	2,223	4,638	3,498	1,730	2,151
Optimal bandwidth	2.224	2.424	0.783	0.797	4.576	2.319	0.596	0.796

Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support for each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.5: Heterogeneous incumbency effect on the policy indices in 2012: by political experience

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Redist.	Size	Redist.	Size	Redist.	Size	Redist.	Size
Sample	Experienced				Inexperienced			
	Councilors, 2012		Deputies, 2012		Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0417	0.0111	0.0608	-0.0034	-0.0933*	-0.1062*	0.0161	0.0514
	(0.0504)	(0.0605)	(0.0727)	(0.0645)	(0.0559)	(0.0544)	(0.0664)	(0.0764)
$\text{Elected}_{\text{t-4}}$	-0.0326	0.1182	0.0555	0.0196	-0.0808	-0.1503**	0.0727	-0.0136
(½ bandwidth)	(0.0643)	(0.0750)	(0.0970)	(0.0768)	(0.0763)	(0.0694)	(0.0921)	(0.1050)
Observations	1,480	1,044	723	874	1,251	1,364	1,291	1,546
Opt. bandwidth	3.607	1.629	0.826	0.987	1.130	1.154	0.748	0.864

Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support for each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.6: Heterogeneous incumbency effect on the policy indices in 2008: by political experience

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Redist.	Size	Redist.	Size	Redist.	Size	Redist.	Size
Sample	Experienced				Inexperienced			
	Councilors		Deputies		Councilors		Deputies	
Elected_{t-4}	-0.0054	-0.0915	0.1330	0.1835	-0.0261	0.0090	-0.0517	0.0107
	(0.0377)	(0.0713)	(0.0876)	(0.1194)	(0.0421)	(0.0388)	(0.0440)	(0.0436)
Elected_{t-4}	-0.0203	-0.1283	0.0852	0.1484	-0.0163	-0.0108	-0.0313	0.0626
(½ bandwidth)	(0.0429)	(0.0948)	(0.1103)	(0.1388)	(0.0541)	(0.0500)	(0.0666)	(0.0622)
Observations	2,136	1,163	450	505	1,901	2,269	1,465	1,848
Opt. bandwidth	8.690	2.451	0.921	1.068	1.459	2.084	0.621	0.874

Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support for each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.7: Incumbency effect on the moderation and extremism indices

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation
Sample	Councilors, 2012		Deputies, 2012		Councilors, 2008		Deputies, 2008	
$\text{Elected}_{\text{t-4}}$	-0.0020	-0.0070	-0.0115	-0.0023	0.0038	-0.0014	0.0136	-0.0091
	(0.0104)	(0.0049)	(0.0139)	(0.0064)	(0.0146)	(0.0037)	(0.0159)	(0.0075)
$\text{Elected}_{\text{t-4}}$	0.0080	-0.0074	-0.0290	-0.0000	-0.0004	-0.0018	0.0104	-0.0125
(½ bandwidth)	(0.0142)	(0.0064)	(0.0216)	(0.0071)	(0.0209)	(0.0049)	(0.0208)	(0.0119)
Observations	3,822	4,626	2,911	3,279	3,767	4,387	2,455	2,055
Optimal bandwidth	2.121	3.458	0.853	1.049	1.993	2.693	0.844	0.668

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.8: Heterogeneous incumbency effect on the moderation and extremism indices in 2012: by political experience

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation
Sample	Experienced				Inexperienced			
	Councilors, 2012		Deputies, 2012		Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0083	-0.0020	-0.0064	-0.0010	0.0018	-0.0045	-0.0124	-0.0032
	(0.0209)	(0.0074)	(0.0211)	(0.0116)	(0.0144)	(0.0092)	(0.0173)	(0.0090)
$\text{Elected}_{\text{t-4}}$	0.0252	-0.0070	-0.0224	0.0014	-0.0063	0.0040	-0.0229	0.0048
(½ bandwidth)	(0.0266)	(0.0086)	(0.0287)	(0.0149)	(0.0196)	(0.0139)	(0.0263)	(0.0087)
Observations	1,397	1,619	1,117	769	2,107	1,979	2,087	1,973
Opt. bandwidth	2.093	2.770	1.056	0.621	1.543	1.350	0.987	0.885

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. There are too few councilors without any earlier political experience to estimate this for close winners and close losers for a councilor position. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.9: Heterogeneous incumbency effect on the moderation and extremism indices in 2008: by political experience

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation
Sample	Experienced				Inexperienced			
	Councilors, 2008		Deputies, 2008		Councilors, 2008		Deputies, 2008	
$\text{Elected}_{\text{t-4}}$	-0.0148	0.0002	0.0392	-0.0476	0.0055	-0.0028	0.0067	0.0027
	(0.0280)	(0.0066)	(0.0428)	(0.0296)	(0.0183)	(0.0042)	(0.0175)	(0.0047)
$\text{Elected}_{\text{t-4}}$	-0.0013	-0.0032	0.0563	-0.0653	0.0106	-0.0021	0.0056	0.0032
(½ bandwidth)	(0.0344)	(0.0079)	(0.0543)	(0.0410)	(0.0256)	(0.0059)	(0.0204)	(0.0053)
Observations	1,648	1,069	582	569	2,541	3,066	2,289	2,128
Opt. bandwidth	3.768	1.915	1.113	1.057	1.795	2.739	1.074	0.942

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. There are too few councilors without any earlier political experience to estimate this for close winners and close losers for a councilor position. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.10: Incumbency effect in 2012 on the distance from:

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
Sample	Councilors, 2012			Deputies, 2012		
Elected_{t-4}	-0.6602	-0.2143	-0.4773	-0.4529	-0.0070	-0.0036
	(0.9768)	(1.0482)	(0.9989)	(0.9134)	(0.8738)	(0.8784)
Elected_{t-4}	-1.4301	-0.5200	-0.8020	-0.9436	-0.4051	-0.5941
(½ bandwidth)	(1.3217)	(1.4187)	(1.2934)	(1.1413)	(1.0779)	(1.1561)
Observations	3,151	3,150	2,850	3,569	3,588	3,080
Optimal bandwidth	1.574	1.530	1.406	1.462	1.422	1.250

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.11: Incumbency effect in 2008 on the distance from:

	(1)	(2)	(3)
Dep. var.	Party average	Region average	Party-region average
Sample	Councilors, 2008		
$\text{Elected}_{\text{t-4}}$	0.6717	0.4783	0.8529
	(0.8765)	(0.8071)	(1.1449)
$\text{Elected}_{\text{t-4}}$	1.7394	1.1461	2.0306
(½ bandwidth)	(1.2213)	(1.1021)	(1.8268)
Observations	3,832	3,458	2,716
Optimal bandwidth	2.482	1.942	1.702

	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average
Sample	Deputies, 2008		
$\text{Elected}_{\text{t-4}}$	0.8847	0.5908	1.1143
	(1.2191)	(1.1140)	(1.2739)
$\text{Elected}_{\text{t-4}}$	0.7889	-1.1500	-0.0247
(½ bandwidth)	(1.7622)	(1.4139)	(1.5882)
Observations	2,761	2,228	1,843
Optimal bandwidth	1.213	0.821	0.832

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4.12: Heterogeneous incumbency effect in 2012 on the distance from (by political experience):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
			Experienced			
Sample		Councilors, 2012			Deputies, 2012	
$Elected_{t-4}$	-0.8790	-1.2542	-2.4218*	0.5704	0.3056	1.2053
	(1.5645)	(1.6527)	(1.4285)	(1.7592)	(1.6359)	(1.6914)
$Elected_{t-4}$	-0.4249	-1.0622	-1.9042	2.3193	1.2081	2.7521
(½ bandwidth)	(2.1704)	(2.2118)	(1.7714)	(2.1771)	(2.0264)	(2.2675)
Observations	1,299	1,248	1,324	975	880	875
Optimal bandwidth	1.936	1.779	2.192	0.905	0.749	0.813

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
			Inexperienced			
Sample		Councilors, 2012			Deputies, 2012	
$Elected_{t-4}$	-0.7522	0.2242	0.4022	-2.4457*	-0.4867	-1.9907
	(1.0840)	(1.0135)	(1.0100)	(1.3946)	(1.1515)	(1.4623)
$Elected_{t-4}$	-1.7991	0.1588	-0.1776	-4.3297**	-1.8625	-3.4923*
(½ bandwidth)	(1.4456)	(1.3674)	(1.3073)	(1.9193)	(1.5204)	(1.9014)
Observations	2,033	2,259	2,093	1,401	1,858	1,240
Optimal bandwidth	1.632	2.000	1.926	0.633	0.873	0.616

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table 4.13: Heterogeneous incumbency effect in 2008 on the distance from (by political experience):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
			Experienced			
Sample		Councilors, 2008			Deputies, 2008	
Elected_{t-4}	1.3847	1.3376	1.6762	6.4854	2.1212	4.3395
	(1.9047)	(1.6826)	(1.8354)	(5.4150)	(2.0433)	(3.0739)
Elected_{t-4}	1.0529	1.8407	0.7220	11.5056	3.7289	4.4108
(½ bandwidth)	(2.4714)	(2.2303)	(2.3728)	(8.9287)	(2.8730)	(3.9546)
Observations	1,089	1,083	1,052	374	647	378
Optimal bandwidth	2.243	2.166	2.666	0.717	1.570	0.864

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
			Inexperienced			
Sample		Councilors, 2008			Deputies, 2008	
Elected_{t-4}	1.9438	0.3215	1.1436	-0.5414	-1.2459	-0.3972
	(1.3104)	(0.8546)	(1.3315)	(1.3180)	(1.2121)	(1.5461)
Elected_{t-4}	3.4247*	1.1148	2.6945	-2.3819	-2.9453**	-1.0578
(½ bandwidth)	(2.0089)	(1.1086)	(2.1134)	(1.8311)	(1.4867)	(1.8905)
Observations	2,008	2,537	1,976	1,612	1,452	1,185
Optimal bandwidth	1.385	2.079	1.750	0.715	0.611	0.614

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

5 Appendix

APPENDIX A

Yle voting aid application questions in 2012

If your municipality were to get a large donation in order to improve the municipal services, which services should be mainly targeted? Choose two from the following options:

- Social services
- Day care
- Eldercare
- Schools
- Nursing staff salaries[1]
- Health centers
- Special health care

Which of the following options should be mainly used in order to balance the municipal budget in your municipality? Choose two from the following options:

- Cutting down services (Public sector size index)
- Increasing existing user fees or introduction of new ones (Redistribution index)
- Raising taxes (Redistribution index)
- Selling off municipal property (Public sector size index)
- Developing the business in the municipality
- Issuing more debt (Redistribution index)

[1]Nurses are the most common occupational category of the municipal employees, numbering 76,900 in 2013.

Let's assume that your municipality is financially troubled. You must save and there is a trade-off between the services for the elderly and the children. What will you do?

- I cut from the services for the elderly.
- I cut from the services for the children.
- I try to cut even-handedly from both kinds of services.
- We should save but I still propose issuing more debt. (Redistribution index)

The following questions have a five-step scaling:

- 0 = "completely disagree"
- 1 = "somewhat disagree"
- 2 = "don't know" or empty
- 3 = "somewhat agree"
- 4 = "completely agree"

If one of the parents is at home, we should limit the right of the family to have their child placed in daycare. (Public sector size index)

The old should have a universal right to a retirement home similar to one enjoyed now by children with respect to day care. (Public sector size index)

Privatization of municipal health care would increase efficiency and lower the costs. (Public sector size index)

We should increase the health care user fees in my municipality. (Redistribution index)

My municipality should receive refugees.

Too little attention has been paid to marginalization of the children and the youth of my municipality.

It is nowadays too easy to be admitted to social welfare.[2] (Redistribution index)

Recycling should be possible in the public trash cans in my municipality.

My municipality should spend more money in the road maintenance.

We should compromise on environmental protection if employment can be thus increased.

[2]While social welfare is regulated nationally, one of its important components is income support, access to which is determined by the case evaluation of municipal authorities. (Moisio et al. 2010). Moreover, a municipality may in practice complicate or facilitate information acquisition on social welfare.

We should raise the property tax rate in my municipality. (Redistribution index)

If my municipality were to merge with another municipality in the near future, a consultative referendum should be held on the merger decision.

The voting age limit in the municipal elections should be decreased to 16 years [from 18 years].

The municipal user fees should be made more progressive in income. (Redistribution index)

Members of Parliament should not run in the municipal elections.

The five-year long dismissal period for the municipal employees in conjunction with a municipality merger is too long. (Public sector size index)

Municipal employees should not be nominated as municipal board members. (Public sector size index)

Yle voting aid application questions in 2008

In order to provide our municipality with more revenue, we should [choose two]:

- increase the property tax rate for residential buildings (Redistribution index)
- increase the property tax rate for holiday houses (Redistribution index)
- increase user fees (Redistribution index)
- sell off municipal property (Public sector size index)
- attract business with favorable conditions or financial support
- attract new well-off taxpayers by offering them building plots[3]
- request for more state subsidies
- consider a municipality merger (Public sector size index)
- introduce new user fees. (Redistribution index)

Which of the following services should we privatize [choose as many as you like but at least one of the following]:

- comprehensive school

[3]Municipalities are big land owners and rural municipalities frequently sell building plots at token prices in order to attract new well-to-do taxpayers.

- health center
- eldercare
- day care
- municipal engineering
- social welfare
- substance abuse treatment and rehabilitation
- fire and rescue services
- zoning
- special health care
- water utility
- none of the above (Public sector size index)

The following questions have a five-step scaling:

- 0 = “completely disagree”
- 1 = “somewhat disagree”
- 2 = empty
- 3 = “somewhat agree”
- 4 = “completely agree”

If there is no other option, we should raise the municipal tax rate rather than cut from the municipal services. (Public sector size index)

It is nowadays too easy to be admitted to social welfare. (Redistribution index)

The municipal user fees should be made more progressive in income. (Redistribution index)

We should compromise on environmental protection if employment can be thus increased.

If one of the parents is at home, we should limit the right of the family to have their child placed in daycare. (Public sector size index)

We should downsize the number of employees in my municipality because there are too many of them. (Public sector size index)

If we must choose, it is better to cut funding from the health center than schooling because there is private health care but no private schools.

Figure A.1: Distribution of the forcing variable: Municipal councillors vs. deputies

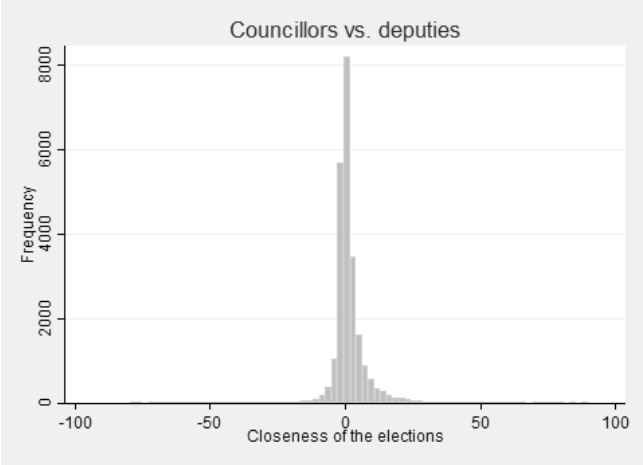


Figure A.2: Distribution of the forcing variable: Deputies vs. non-elected candidates

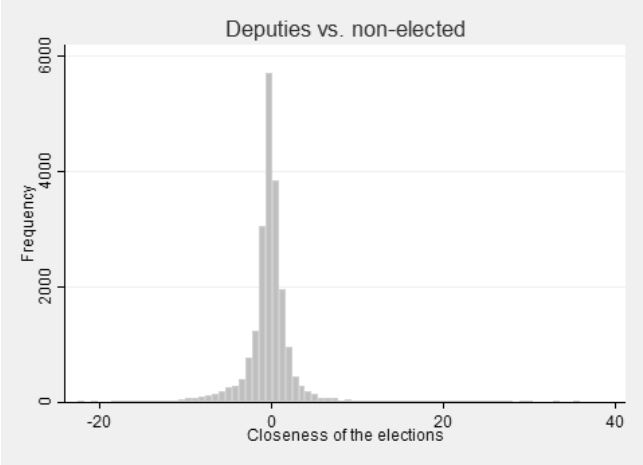
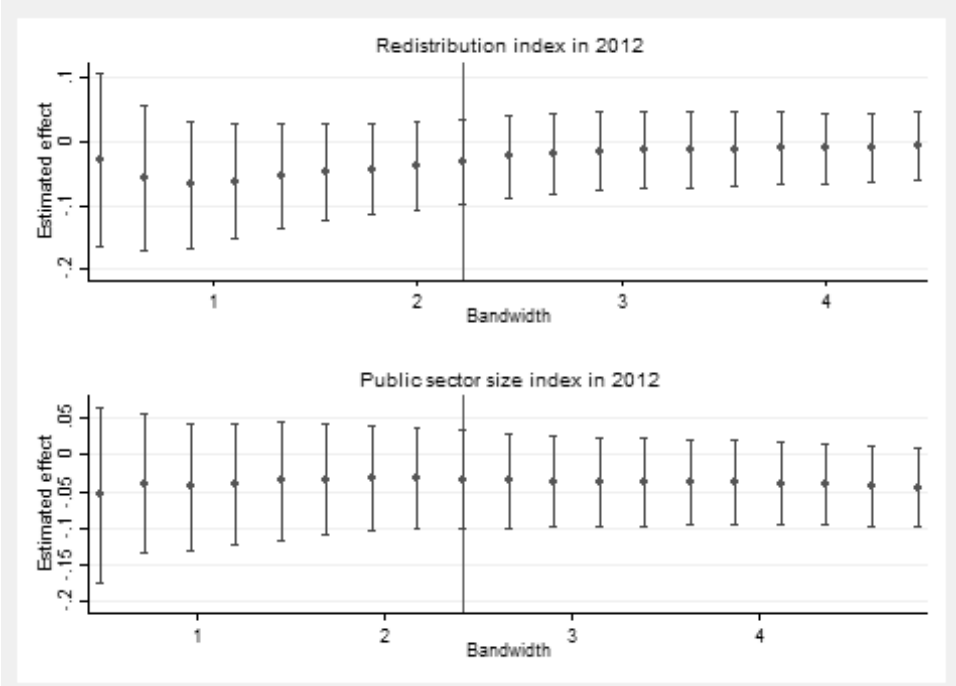
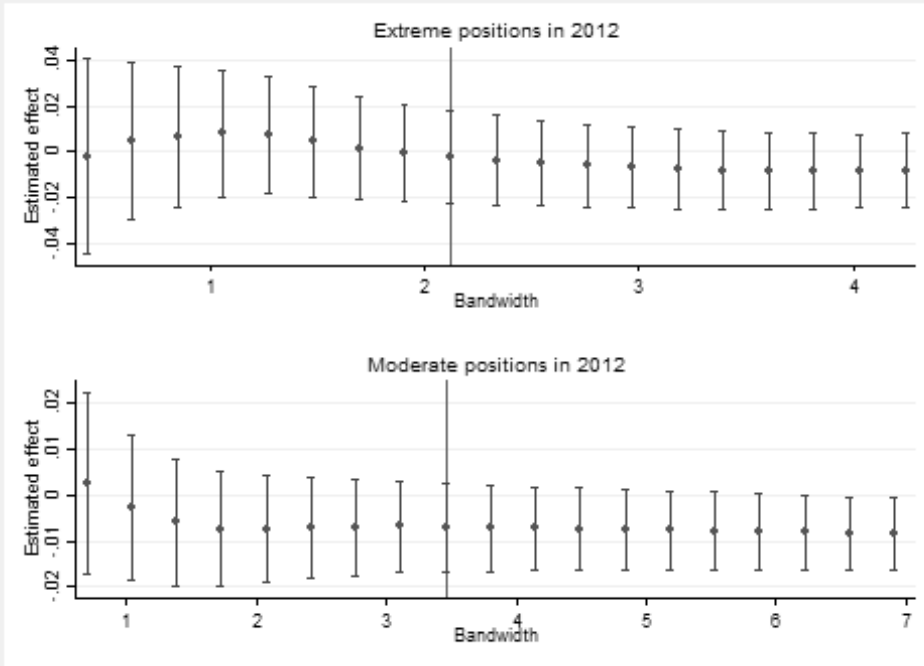


Figure A.3: Robustness to bandwidth in 2012: Policy indices, municipal councilors vs. deputies



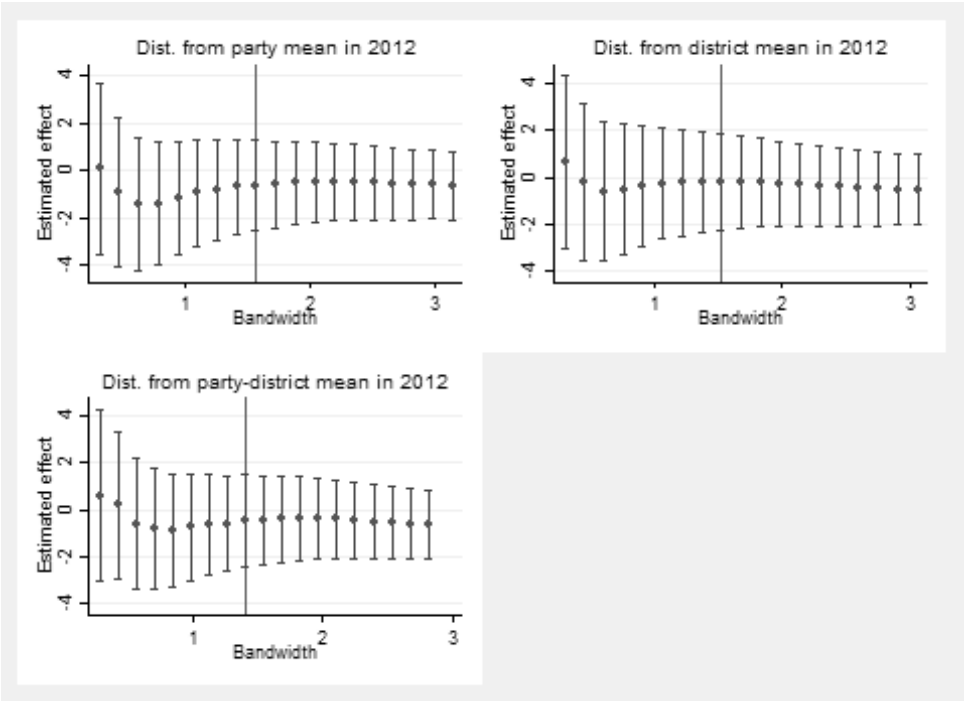
Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support within each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure A.4: Robustness to bandwidth in 2012: Ambiguity indices, municipal councilors vs. deputies



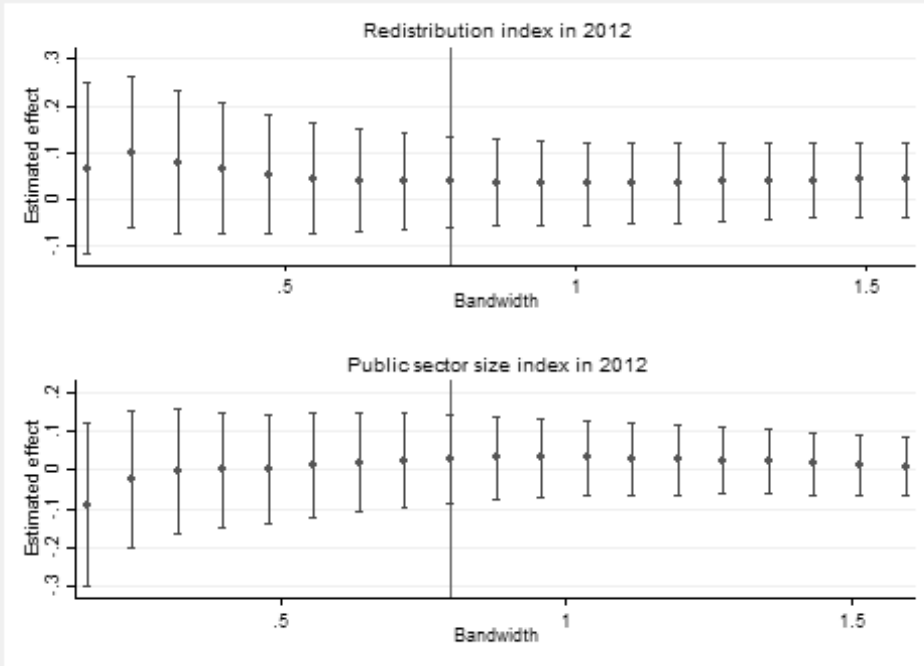
Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure A.5: Robustness to bandwidth in 2012: Distance measures, municipal councilors vs. deputies



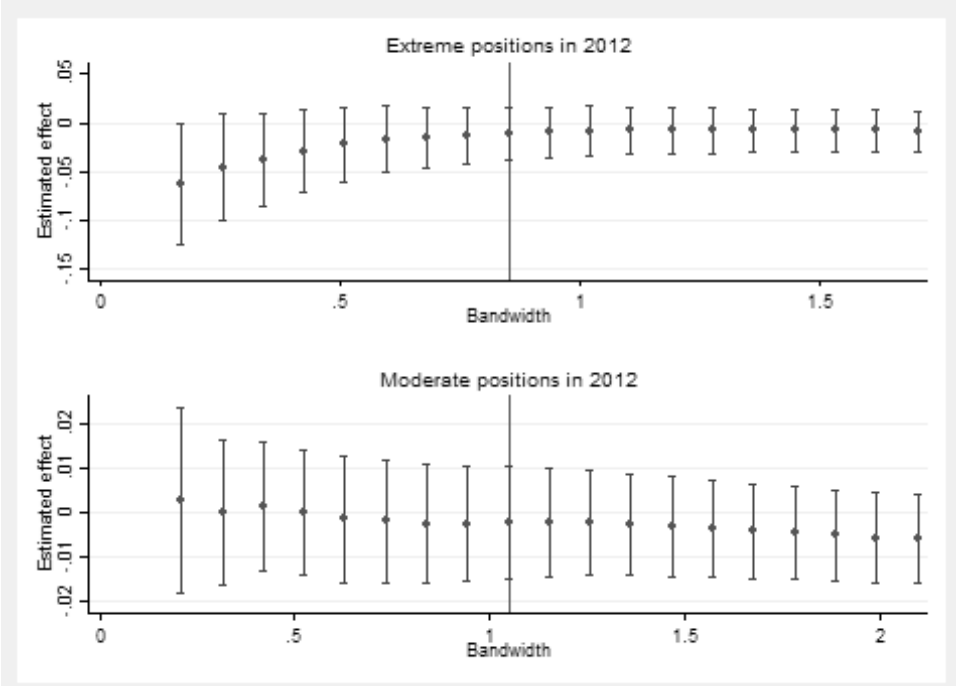
Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure A.6: Robustness to bandwidth in 2012: Policy indices, deputies vs. non-elected candidates



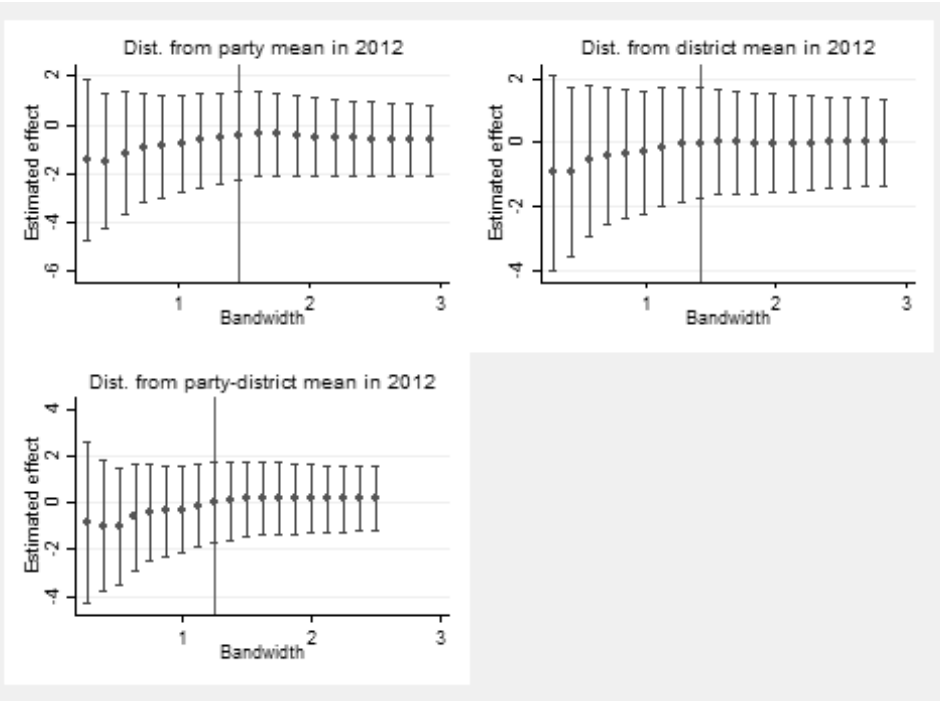
Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support within each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure A.7: Robustness to bandwidth in 2012: Ambiguity indices, deputies vs. non-elected candidates



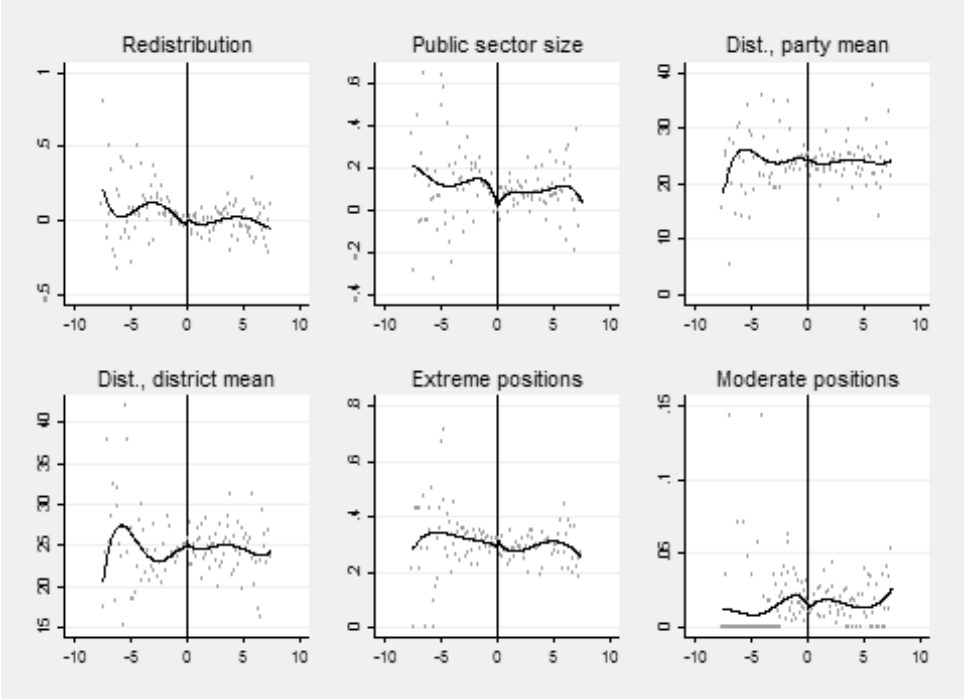
Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure A.8: Robustness to bandwidth in 2012: Distance measures, deputies vs. non-elected candidates



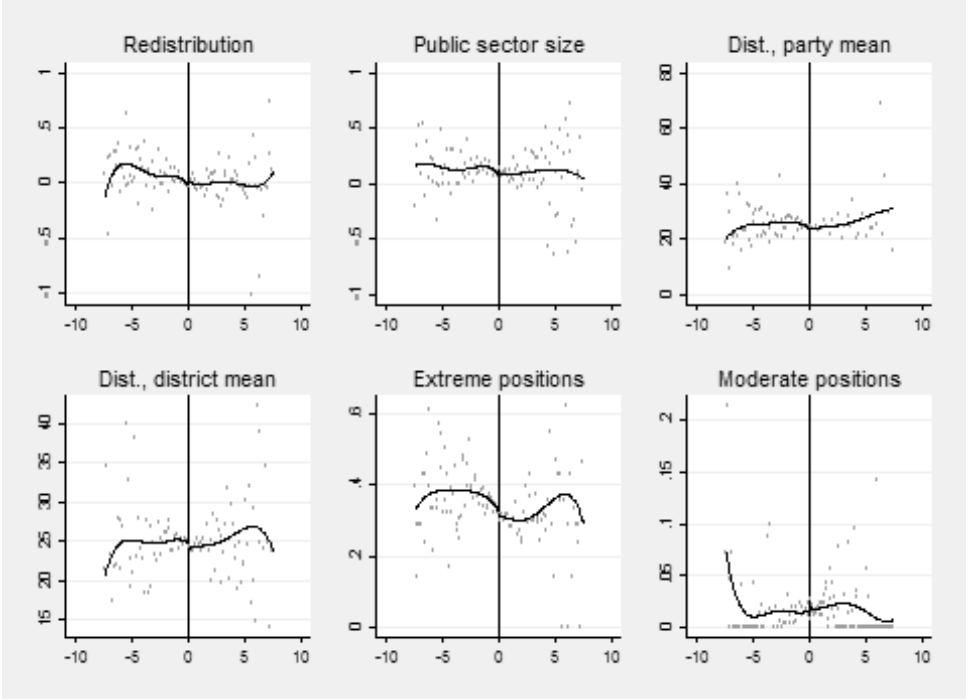
Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure A.9: Continuity of predetermined policy positions: Municipal councillors vs. deputies in 2008



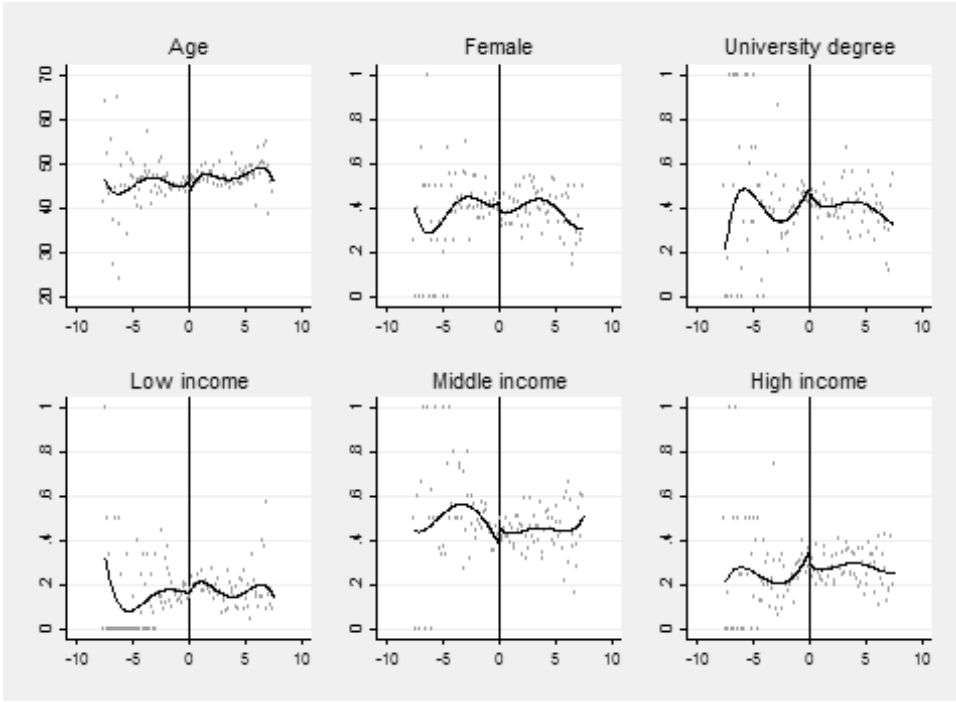
Note: The graphs show only the subsample running also in 2012. The policy indices summarize the policy positions on redistribution and size of public sector while the exact questions differ from those in 2012. The distance measures refer to the Mahalanobis distances from the respective average policy positions. Moderation refers to the share of empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses.

Figure A.10: Continuity of predetermined policy positions: Deputies vs. non-elected candidates in 2008



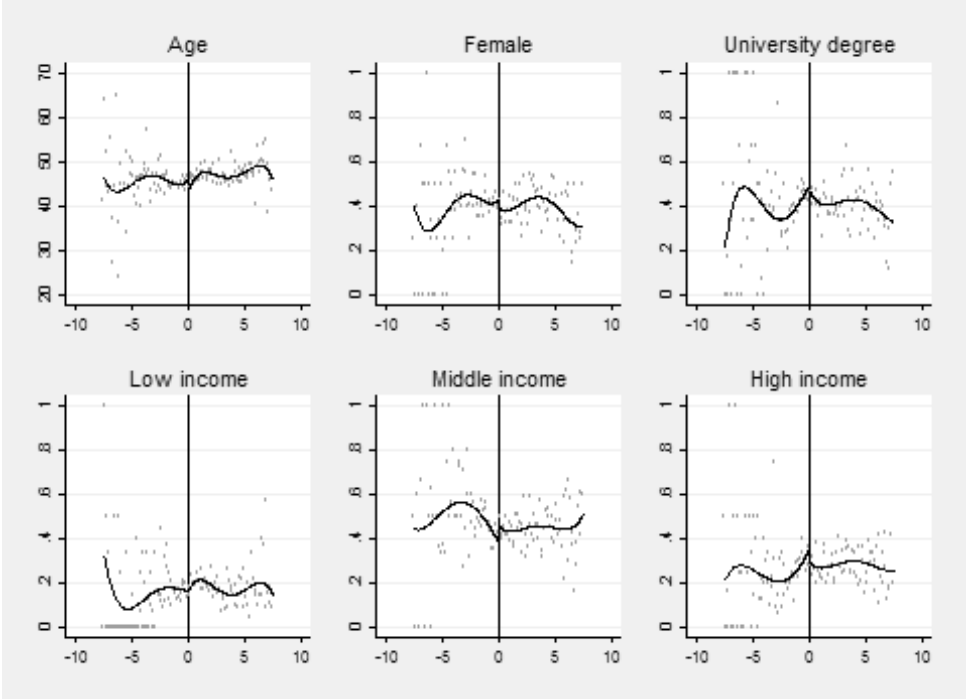
Note: The graphs show only the subsample running also in 2012. The policy indices summarize the policy positions on redistribution and size of public sector while the exact questions differ from those in 2012. The distance measures refer to the Mahalanobis distances from the respective average policy positions. Moderation refers to the share of empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses.

Figure A.11: Continuity of predetermined socio-economic variables: Municipal councillors vs. deputies in 2008



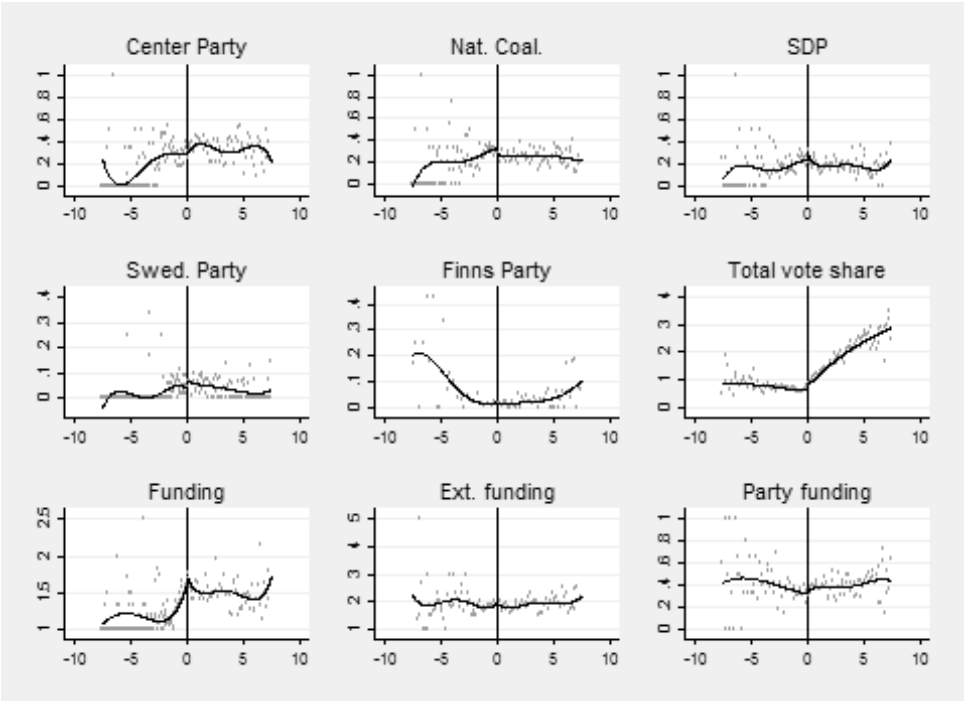
Note: The graphs show only the subsample running also in 2012. The data on educational achievement and socio-economic position is self-reported by the voting aid application repliers while the age and gender data comes from the electoral statistics. Income groups are based on the self-reported occupation category. I classify a candidate as having high income if he has a managerial position or is a senior white-collar worker. Middle-income refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with low income are the ones who are retired, home-makers, farmers, students or unemployed.

Figure A.12: Continuity of predetermined socio-economic variables: Deputies vs. non-elected candidates in 2008



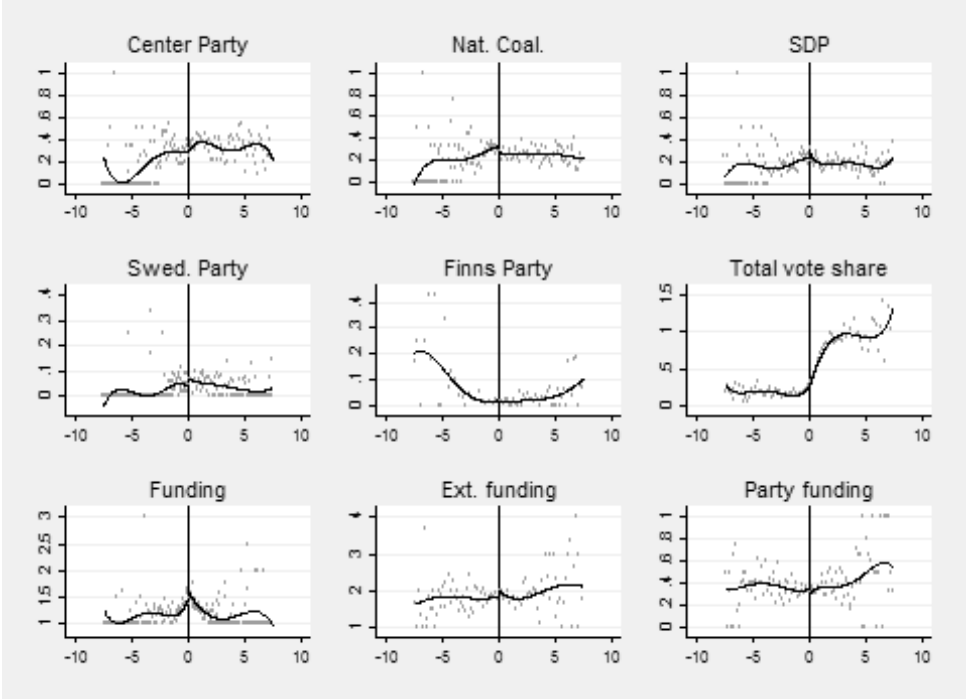
Note: The graphs show only the subsample running also in 2012. The data on educational achievement and socio-economic position is self-reported by the voting aid application repliers while the age and gender data comes from the electoral statistics. Income groups are based on the self-reported occupation category. I classify a candidate as having high income if he has a managerial position or is a senior white-collar worker. Middle-income refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with low income are the ones who are retired, home-makers, farmers, students or unemployed.

Figure A.13: Continuity of predetermined political variables: Municipal councillors vs. deputies in 2008



Note: The graphs show only the subsample running also in 2012. The data on the campaign expenditure and the funding sources is self-reported by the voting aid application repliers and the remaining data comes from the electoral statistics. The Center Party and National Coalition are conservative, the Social Democrats (SDP) are leftist, the Swedish People's Party is liberal, and the Finns Party is populist. "Total vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality. Campaign expenditure categories are as follows: 1 = 0-500€, 2 = 501-1000€, 3 = 1001-2000€, 4 = 2001-3000€, 5 = 3001-5000€, 6 = 5001-7000€, 7 = 7001-10000€, 8 = 10001-15000€, 9 = 15001-20000€, and 10 = over 20000€. Exterior funding share categories are as follows: 1=0%, 2=1-20%, 3=21-50%, 4=51-80% and 5=81-100%. "Party funding" equals 1 if a candidate names the party as her main external campaign contributor.

Figure A.14: Continuity of predetermined political variables: Deputies vs. non-elected candidates in 2008



Note: The graphs show only the subsample running also in 2012. The data on the campaign expenditure and the funding sources is self-reported by the voting aid application repliers and the remaining data comes from the electoral statistics. The Center Party and National Coalition are conservative, the Social Democrats (SDP) are leftist, the Swedish People's Party is liberal, and the Finns Party is populist. "Total vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality. Campaign expenditure categories are as follows: 1 = 0-500€, 2 = 501-1000€, 3 = 1001-2000€, 4 = 2001-3000€, 5 = 3001-5000€, 6 = 5001-7000€, 7 = 7001-10000€, 8 = 10001-15000€, 9 = 15001-20000€, and 10 = over 20000€. Exterior funding share categories are as follows: 1=0%, 2=1-20%, 3=21-50%, 4=51-80% and 5=81-100%. "Party funding" equals 1 if a candidate names the party as her main external campaign contributor.

Table A.1: Descriptive statistics on the candidates, political variables

	2008 repliers	2008 non-repliers	2012 repliers	2012 non-repliers
Vote share (%)	0.92	0.79	0.85	0.77
	(1.20)	(1.08)	(1.15)	(1.10)
Share of within-	5.97	5.24	6.18	5.17
party votes (%)	(11.48)	(10.92)	(11.69)	(10.52)
Share elected councilor	0.33	0.21	0.31	0.20
	(0.47)	(0.41)	(0.46)	(0.40)
Share elected deputy	0.26	0.26	0.25	0.26
	(0.44)	(0.44)	(0.43)	(0.44)
Share incumbent	0.24	0.19	0.22	0.17
councilor	(0.43)	(0.39)	(0.41)	(0.38)
Share Member of Parliament at	0.007	0.001	0.007	0.001
the time of the munic. elections	(0.083)	(0.030)	(0.081)	(0.038)
Share has been councilor or	0.36		0.50	
deputy earlier	(0.48)		(0.50)	
Campaign expenditure	1.31		1.30	
category	(0.81)		(0.81)	
External funding share	1.82		1.64	
category	(1.22)		(1.05)	
Share party main source of	0.35		0.23	
external funding	(0.48)		(0.42)	
Observations	20060	18241	20734	16346

Note: The data on the campaign expenditure and the funding sources is self-reported by the voting aid application repliers and the remaining data comes from the electoral statistics. "Vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality. "Share of within-party votes" stands for the votes of a candidate divided by the vote tally of all the candidates of the same party in the municipality. "Elected" became a municipal councilor while "deputy" became a deputy councilor. Campaign expenditure categories are as follows: 1 = 0-500€, 2 = 501-1000€, 3 = 1001-2000€, 4 = 2001-3000€, 5 = 3001-5000€, 6 = 5001-7000€, 7 = 7001-10000€, 8 = 10001-15000€, 9 = 15001-20000€, and 10 = over 20000€. Exterior funding share categories are as follows: 1=0%, 2=1-20%, 3=21-50%, 4=51-80% and 5=81-100%.

Table A.2: Descriptive statistics on all the candidates, socio-economic variables

	2008 repliers	2008 non-repliers	2012 repliers	2012 non-repliers
Female	0.43	0.37	0.41	0.36
	(0.50)	(0.48)	(0.49)	(0.48)
Age	45.35	50.32	46.38	51.65
	(12.79)	(13.25)	(13.27)	(13.75)
High-income	0.24		0.19	
	(0.42)		(0.39)	
Middle-income	0.46		0.45	
	(0.50)		(0.50)	
Low-income	0.21		0.21	
	(0.41)		(0.41)	
Municipality employees	0.25		0.19	
	(0.43)		(0.39)	
University degree	NA		0.38	
			(0.49)	
Observations	20060	18241	20734	16346

Note: The data on the gender and the age comes from the electoral statistics. The data on the occupational status and the university education (only for 2012) is self-reported in the voting aid applications. Income groups are based on the self-reported occupation category. I classify a candidate as having high income if he has a managerial position or is a senior white-collar worker. Middle-income refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with low income are the ones who are retired, homemakers, farmers, students or unemployed.

Table A.3: Descriptive statistics on all the candidates, socio-economic variables

	2008	2012
Redistribution	0.03	0.03
index	(0.48)	(0.50)
Public sector	0.11	0.11
index	(0.51)	(0.52)
Share moderate	0.02	0.05
positions	(0.09)	(0.10)
Share extreme	0.33	0.35
positions	(0.24)	(0.19)
Distance from	24.99	33.00
party average	(16.57)	(13.79)
Distance from	24.99	32.99
regional average	(13.64)	(12.46)
Distance from regional		32.87
party average		(12.48)

Note: The policy indices summarizing the policy positions on redistribution and size of public sector consist of different questions in 2008 and in 2012.

Table A.4: Heterogeneous incumbency effect on the policy indices, by change in the local economy:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Redist.	Size	Redist.	Size	Redist.	Size	Redist.	Size
Sample	Increasing municipal unemployment rate				Stable municipal unemployment rate			
	Councilors, 2012		Deputies, 2012		Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	0.0617	-0.0540	0.0203	-0.1661	-0.0596	-0.0273	0.0315	0.0651
	(0.0588)	(0.0601)	(0.0640)	(0.1119)	(0.0397)	(0.0388)	(0.0609)	(0.0700)
$\text{Elected}_{\text{t-4}}$	0.0533	-0.0615	0.0163	-0.2563*	-0.1045*	-0.0222	0.0587	0.0667
(½ bandwidth)	(0.0647)	(0.0848)	(0.0771)	(0.1278)	(0.0549)	(0.0461)	(0.0855)	(0.0859)
Observations	839	944	875	446	2,137	2,363	1,380	1,604
Opt. bandwidth	2.823	3.320	1.355	0.471	2.286	2.451	0.796	0.877

Note: I classify the municipal unemployment rate as increasing if its increase is in the highest quartile of unemployment rate percentage points change, increasing at least 2 percentage points. The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support for each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.5: Heterogeneous incumbency effect on the moderation and extremism indices, by change in the local economy:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation
Sample	Increasing municipal unemployment rate				Stable municipal unemployment rate			
	Councilors, 2012		Deputies, 2012		Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0372*	0.0099	-0.0759**	-0.0123	0.0088	-0.0134**	0.0054	0.0023
	(0.0213)	(0.0088)	(0.0321)	(0.0121)	(0.0114)	(0.0064)	(0.0166)	(0.0076)
$\text{Elected}_{\text{t-4}}$	-0.0484	0.0112	-0.1249**	-0.0053	0.0266*	-0.0120	0.0016	0.0048
(½ bandwidth)	(0.0316)	(0.0089)	(0.0480)	(0.0109)	(0.0146)	(0.0088)	(0.0249)	(0.0095)
Observations	1,022	1,080	650	1,081	2,931	3,130	1,970	2,080
Opt. bandwidth	2.018	2.311	0.557	1.081	2.404	2.838	0.864	0.944

Note: I classify the municipal unemployment rate as increasing if its increase is in the highest quartile of unemployment rate percentage points change, increasing at least 2 percentage points. Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.6: Heterogeneous incumbency effect on the distance from (by change in the local economy):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party avg.	Region avg.	Party-region avg.	Party avg.	Region avg.	Party-region avg.
Sample	Increasing municipal unemployment rate					
	Councilors, 2012			Deputies, 2012		
$\text{Elected}_{\text{t-4}}$	-2.4708*	-3.7611***	-2.4105	0.4705	0.6033	-0.0475
	(1.3047)	(1.3729)	(1.5279)	(1.5441)	(1.0990)	(1.4975)
$\text{Elected}_{\text{t-4}}$	-4.0823**	-5.0091**	-4.1596**	-0.2934	0.2660	-1.3070
(½ bandwidth)	(1.7582)	(1.9738)	(2.0780)	(1.9982)	(1.5362)	(1.8427)
Observations	1,100	1,044	935	1,045	1,328	1,081
Opt. bandwidth	2.661	2.322	2.090	1.157	2.254	1.726

Note: I classify the municipal unemployment rate as increasing if its increase is in the highest quartile of unemployment rate percentage points change, increasing at least 2 percentage points. The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.7: Heterogeneous incumbency effect on the distance from (by change in the local economy):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party avg.	Region avg.	Party-region avg.	Party avg.	Region avg.	Party-region avg.
Sample	Stable municipal unemployment rate					
	Councilors, 2012			Deputies, 2012		
Elected_{t-4}	0.3842	1.3973	0.5415	-0.9463	-0.2273	0.3209
	(1.1455)	(1.2148)	(1.1630)	(1.2404)	(1.1600)	(1.0478)
Elected_{t-4}	0.2264	1.6473	0.9651	-1.4841	-0.7412	-0.4076
(½ bandwidth)	(1.4805)	(1.5612)	(1.4205)	(1.6170)	(1.5000)	(1.3990)
Observations	2,285	2,203	1,970	2,127	2,187	1,897
Opt. bandwidth	1.564	1.432	1.269	1.102	1.116	0.991

Note: I classify the municipal unemployment rate as increasing if its increase is in the highest quartile of unemployment rate percentage points change, increasing at least 2 percentage points. The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.8: Heterogeneous incumbency effect on the policy indices, by size of the municipality:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Redist.	Size	Redist.	Size	Redist.	Size	Redist.	Size
Sample	At least middle-sized				Small			
	Councilors, 2012		Deputies, 2012		Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0110	-0.0440	0.0554	0.0292	-0.0424	-0.0485	-0.1250	-0.0257
	(0.0346)	(0.0449)	(0.0604)	(0.0593)	(0.0695)	(0.0611)	(0.1101)	(0.1149)
$\text{Elected}_{\text{t-4}}$	-0.0426	-0.0309	0.1079	-0.0107	-0.0742	0.0062	-0.1200	0.0423
(½ bandwidth)	(0.0430)	(0.0514)	(0.0833)	(0.0776)	(0.1061)	(0.0827)	(0.1387)	(0.1447)
Observations	2,536	2,075	1,493	2,179	739	708	260	268
Opt. bandwidth	2.785	1.453	0.587	0.859	3.727	3.199	1.903	1.661

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support for each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.9: Heterogeneous incumbency effect on the moderation and extremism indices, by size of the municipality:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation
Sample	At least middle-sized				Small			
	Councilors, 2012		Deputies, 2012		Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0025	-0.0024	-0.0066	-0.0031	0.0192	-0.0185	-0.0500	-0.0210
	(0.0134)	(0.0068)	(0.0134)	(0.0056)	(0.0232)	(0.0192)	(0.0463)	(0.0145)
$\text{Elected}_{\text{t-4}}$	0.0012	0.0089	-0.0163	0.0008	0.0556*	-0.0387	-0.0711	-0.0158
(½ bandwidth)	(0.0180)	(0.0094)	(0.0196)	(0.0071)	(0.0296)	(0.0324)	(0.0612)	(0.0185)
Observations	2,711	2,636	3,030	3,591	864	770	290	525
Opt. bandwidth	1.500	1.419	1.053	1.653	3.111	2.540	1.230	3.763

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.10: Heterogeneous incumbency effect on the distance from (by size of the municipality):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party avg.	Region avg.	Party-region avg.	Party avg.	Region avg.	Party-region avg.
Sample	At least middle-sized					
	Councilors, 2012			Deputies, 2012		
$\text{Elected}_{\text{t-4}}$	-1.0836	-0.2617	-0.3690	-1.0500	-0.4354	-0.7806
	(0.7931)	(1.0576)	(0.9841)	(1.0261)	(0.9674)	(1.1118)
$\text{Elected}_{\text{t-4}}$	-0.6874	-0.0427	-0.4529	-1.7010	-0.8699	-1.4841
(½ bandwidth)	(1.0552)	(1.4376)	(1.2684)	(1.3130)	(1.2306)	(1.4493)
Observations	3,450	2,885	2,690	2,977	3,048	2,048
Opt. bandwidth	3.245	1.854	1.824	1.158	1.175	0.709

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.11: Heterogeneous incumbency effect on the distance from (by size of the municipality):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party avg.	Region avg.	Party-region avg.	Party avg.	Region avg.	Party-region avg.
Sample	Small					
	Councilors, 2012			Deputies, 2012		
$\text{Elected}_{\text{t-4}}$	1.7014	1.3075	1.0332	4.0963	3.0376	2.1989
	(1.7539)	(1.4645)	(1.6575)	(3.2993)	(2.9935)	(3.0551)
$\text{Elected}_{\text{t-4}}$	0.4157	0.9768	0.0635	5.6685	3.9524	3.7875
(½ bandwidth)	(2.4154)	(1.9894)	(2.4291)	(4.3621)	(3.7070)	(4.8050)
Observations	895	1,014	865	265	268	287
Opt. bandwidth	3.663	4.484	3.556	1.178	1.171	1.348

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.12: Sensitivity to the choice of optimal bandwidth: Incumbency effect on the policy indices

	(1)	(2)	(3)	(4)
Dep. var.	Redist.	Size	Redist.	Size
Sample	Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0099	-0.0442	0.0386	0.0184
	(0.0280)	(0.0272)	(0.0426)	(0.0416)
Observations	3,634	4,014	2,648	2,939
Optimal bandwidth	4.160	4.730	1.284	1.395

Note: The policy indices summarize the policy positions on redistribution and size of public sector. Local linear regressions using a triangle kernel with the optimal bandwidth by Calonico, Cattaneo and Titiunik (2014). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.13: Sensitivity to the choice of optimal bandwidth: Incumbency effect on the moderation and extremism indices

	(1)	(2)	(3)	(4)
Dep. var.	Extremism	Moderation	Extremism	Moderation
Sample	Councilors, 2012		Deputies, 2012	
$\text{Elected}_{\text{t-4}}$	-0.0082	-0.0073	-0.0093	-0.0038
	(0.0082)	(0.0046)	(0.0105)	(0.0055)
Observations	4,917	4,912	4,064	3,912
Optimal bandwidth	4.223	4.211	1.797	1.594

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Calonico, Cattaneo and Titiunik (2014). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.14: Sensitivity to the choice of optimal bandwidth: Incumbency effect on the distance from:

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
Sample	Councilors, 2012			Deputies, 2012		
$\text{Elected}_{\text{t-4}}$	-0.7770	-0.6650	-1.0502*	-0.4109	-0.0131	0.1892
	(0.6164)	(0.6154)	(0.5840)	(0.8449)	(0.7961)	(0.7822)
Observations	5,003	5,112	4,921	3,807	3,935	3,481
Optimal bandwidth	5.620	5.743	6.527	1.781	1.853	1.723

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Calonico, Cattaneo and Titiunik (2014). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.15: Balance of the pre-determined variables: policy positions in 2008

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Redist.	Size	Dist. from party avg.	Dist. from region avg.	Extremism	Moderation
Sample			Councilors, 2008			
$\text{Elected}_{\text{t-4}}$	0.0256	0.0041	-0.1912	-0.1199	0.0366**	-0.0033
	(0.0348)	(0.0397)	(0.8274)	(0.7433)	(0.0186)	(0.0053)
$\text{Elected}_{\text{t-4}}$	0.0329	0.0240	-0.1449	-0.4317	0.0405	-0.0021
(½ bandwidth)	(0.0465)	(0.0509)	(1.1438)	(0.9494)	(0.0249)	(0.0073)
Observations	2,951	2,830	3,072	3,347	2,472	3,118
Optimal bandwidth	1.797	1.646	2.528	3.088	1.289	2.040
Sample			Deputies, 2008			
$\text{Elected}_{\text{t-4}}$	-0.0130	-0.0485	0.5480	-0.6166	-0.0211	0.0117**
	(0.0407)	(0.0504)	(1.6586)	(1.1176)	(0.0173)	(0.0057)
$\text{Elected}_{\text{t-4}}$	-0.0280	-0.0882	1.3457	-0.2059	-0.0391	0.0141*
(½ bandwidth)	(0.0532)	(0.0697)	(2.3385)	(1.5992)	(0.0238)	(0.0075)
Observations	2,109	1,646	2,311	2,332	2,413	2,329
Optimal bandwidth	0.726	0.551	0.964	0.957	0.874	0.833

Note: The estimations are done only for the subsample running also in 2012. The policy indices summarize the policy positions on redistribution and size of public sector while the exact questions differ from those in 2012. The distance measures refer to the Mahalanobis distances from the respective average policy positions. Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.16: Balance of the pre-determined variables: political and socio-economic characteristics in 2008

	Age	Female	Low inc.	Middle inc.	High inc.	Total vote share	Party funding	Expend.	Ext. funding
Sample					Councilors, 2008				
$\text{Elected}_{\text{t-4}}$	-1.8598*	-0.0398	0.0178	0.0536*	-0.0622**	0.0453	0.0331	0.0795	-0.0135
	(0.9930)	(0.0280)	(0.0257)	(0.0296)	(0.0241)	(0.0374)	(0.0247)	(0.0762)	(0.0959)
$\text{Elected}_{\text{t-4}}$	-2.8800**	-0.0269	-0.0068	0.0586	-0.0437	0.0521	0.0288	0.2153*	0.0525
(½ bandwidth)	(1.3580)	(0.0344)	(0.0330)	(0.0379)	(0.0316)	(0.0523)	(0.0339)	(0.1178)	(0.1332)
Observations	2,548	3,436	3,270	3,500	3,529	2,149	3,568	2,454	2,292
Opt. bandwidth	1.357	2.571	2.298	2.683	2.783	1.038	2.869	1.498	1.418
Sample					Deputies, 2008				
$\text{Elected}_{\text{t-4}}$	-0.0966	0.0300	-0.0160	0.0179	-0.0085	0.0173	-0.0265	0.0311	0.1276
	(1.0250)	(0.0484)	(0.0358)	(0.0345)	(0.0481)	(0.0141)	(0.0442)	(0.0744)	(0.0938)
$\text{Elected}_{\text{t-4}}$	0.6072	0.0574	-0.0549	0.0486	-0.0131	0.0098	-0.0336	0.0373	0.0952
(½ bandwidth)	(1.4396)	(0.0586)	(0.0480)	(0.0484)	(0.0676)	(0.0200)	(0.0564)	(0.1131)	(0.1449)
Observations	2,251	1,997	2,186	2,428	2,054	2,225	2,609	1,961	2,005
Opt. bandwidth	0.787	0.677	0.757	0.885	0.700	0.769	1.007	0.730	0.792

Note: The estimations are done only for the subsample running also in 2012. The data on educational achievement and socio-economic position is self-reported by the voting aid application repliers while the age and gender data comes from the electoral statistics. Income groups are based on the self-reported occupation category. I classify a candidate as having high income if he has a managerial position or is a senior white-collar worker. Middle-income refers to being a junior white-collar worker, a blue-collar worker or an entrepreneur. Candidates with low income are the ones who are retired, home-makers, farmers, students or unemployed. "Total vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality. "Party funding" equals 1 if a candidate names the party as her main external campaign contributor. Campaign expenditure categories are as follows: 1 = 0-500€, 2 = 501-1000€, 3 = 1001-2000€, 4 = 2001-3000€, 5 = 3001-5000€, 6 = 5001-7000€, 7 = 7001-10000€, 8 = 10001-15000€, 9 = 15001-20000€, and 10 = over 20000€. Exterior funding share categories are as follows: 1=0%, 2=1-20%, 3=21-50%, 4=51-80% and 5=81-100%.

Table A.17: Balance of the pre-determined variables: party affiliations in 2008

	Center Party	Nat. Coal.	Soc. Dem.	Swed. Party	Finns	Greens	Left All.	Christ.Dem.
Sample								
$\text{Elected}_{\text{t-4}}$	-0.0700*	-0.0353	-0.0165	0.0248*	-0.0140	-0.0039	0.0148	0.0029
	(0.0384)	(0.0296)	(0.0189)	(0.0133)	(0.0138)	(0.0124)	(0.0103)	(0.0081)
$\text{Elected}_{\text{t-4}}$	-0.1267**	-0.0175	-0.0033	0.0405**	-0.0280	0.0071	0.0104	0.0044
(½ bandwidth)	(0.0519)	(0.0346)	(0.0238)	(0.0192)	(0.0186)	(0.0181)	(0.0142)	(0.0100)
Observations	2,214	2,830	4,245	3,032	2,540	3,098	3,719	3,552
Opt. bandwidth	1.083	1.647	5.122	1.882	1.347	1.996	3.219	2.829
Sample								
$\text{Elected}_{\text{t-4}}$	-0.0010	0.0142	0.0053	-0.0270*	-0.0109	0.0007	0.0074	0.0089
	(0.0324)	(0.0338)	(0.0366)	(0.0159)	(0.0126)	(0.0211)	(0.0220)	(0.0110)
$\text{Elected}_{\text{t-4}}$	-0.0023	0.0256	0.0048	-0.0247	-0.0051	-0.0100	-0.0065	0.0179
(½ bandwidth)	(0.0417)	(0.0513)	(0.0508)	(0.0155)	(0.0184)	(0.0242)	(0.0315)	(0.0174)
Observations	2,445	2,411	2,052	1,990	1,946	2,391	1,950	2,501
Opt. bandwidth	0.894	0.872	0.700	0.673	0.657	0.862	0.660	0.941

Note: The estimations are done only for the subsample running also in 2012. The Center Party, the National Coalition, and the Christian Democrats are conservative, the Swedish People's Party and the Greens are liberal, the Social Democrats and the Left Alliance are leftist, and the Finns Party is populist.

Table A.18: Sensitivity to control variables: Incumbency effect on the policy indices

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dep. var.	More redistribution					Larger public sector				
Sample	Councilors, 2012									
$\text{Elected}_{\text{t-4}}$	-0.0459	-0.0451	-0.0467	-0.0454	-0.0451	-0.0424	-0.0419	-0.0452	-0.0407	-0.0391
	(0.0313)	(0.0314)	(0.0316)	(0.0313)	(0.0314)	(0.0306)	(0.0307)	(0.0305)	(0.0306)	(0.0310)
Sample	Deputies, 2012									
$\text{Elected}_{\text{t-4}}$	0.0348	0.0327	0.0326	0.0324	0.0317	0.0198	0.0210	0.0212	0.0212	0.0207
	(0.0452)	(0.0454)	(0.0452)	(0.0457)	(0.0456)	(0.0529)	(0.0530)	(0.0532)	(0.0532)	(0.0518)
Right-left affiliation	X	X	X	X	X	X	X	X	X	X
Age, gender		X	X	X	X		X	X	X	X
Income			X					X		
University degree				X	X				X	X
Municipal employee					X					X

Note: The policy indices summarize the policy positions on redistribution and size of public sector. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.19: Sensitivity to control variables: Incumbency effect on the moderation and extremism indices:

	(1)	(2)	(3)	(4)
Dep. var.	Extremism		Moderation	
Sample	Councilors, 2012			
$\text{Elected}_{\text{t-4}}$	-0.0016	-0.0013	-0.0065	-0.0062
	(0.0103)	(0.0104)	(0.0048)	(0.0048)
Sample	Deputies, 2012			
$\text{Elected}_{\text{t-4}}$	-0.0099	-0.0098	-0.0022	-0.0020
	(0.0139)	(0.0140)	(0.0065)	(0.0064)
Age, gender	X	X	X	X
University degree	X		X	
Municipal employee		X		X

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.20: Sensitivity to control variables: Incumbency effect on the distance from:

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average		Region average		Party-region average	
Sample	Councilors, 2012					
$\text{Elected}_{\text{t-4}}$	-0.7836	-0.7701	-0.3519	-0.3270	-0.5926	-0.5687
	(0.9721)	(0.9778)	(1.0354)	(1.0428)	(0.9962)	(1.0026)
Sample	Deputies, 2012					
$\text{Elected}_{\text{t-4}}$	-0.3416	-0.3657	0.0604	0.0419	0.1440	0.1198
	(0.8982)	(0.9005)	(0.8615)	(0.8624)	(0.8641)	(0.8624)
Age, gender	X	X	X	X	X	X
University degree	X		X		X	
Municipal employee		X		X		X

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table A.21: Correlation of attrition and other variables in 2008

	(1)	(2)
Dep. var.	Prob. of running again in 2012	
Sample	VAA repliers, 2008	All, 2008
Redistribution	-0.0083	
index	(0.0081)	
Public sector	0.0159	
size index	(0.0101)	
Distance from	-0.0003	
the party avg.	(0.0003)	
Distance from	-0.0009**	
the region avg.	(0.0004)	
Share extreme	-0.0366**	
positions	(0.0162)	
Elected as	0.2547***	0.2932***
councillor	(0.0116)	(0.0078)
Elected as	0.1166***	0.1327***
deputy	(0.0115)	(0.0073)
Center	-0.0824***	
Party	(0.0190)	
Soc.	-0.0071	
Democrats	(0.0149)	
Nat.	-0.0669***	
Coalition	(0.0168)	
The	0.0360	
Finns	(0.0244)	
Swedish	-0.0676**	
People's Party	(0.0261)	
Greens	-0.0758***	
	(0.0201)	
Christ.	-0.0238	
Democrats	(0.0215)	
Age	0.0028***	0.0022***
	(0.0004)	(0.0003)
Female	-0.0740***	-0.0656***
	(0.0074)	(0.0051)
High-income		
Low-income		
Constant	0.4065***	0.2809***
	(0.0264)	(0.0134)
Observations	17,332	38,301
R-squared	0.0866	0.0798

Note: The omitted party category is the Left Alliance, a micro-party or an electoral association. The omitted income category is middle income. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

Table A.22: Correlation of attrition in the voting aid application usage and other variables in 2008

	(1)	(2)
Dep. var.	Prob. of using VAA again in 2012	
Sample	VAA repliers, 2008	
Redistribution	-0.0050	0.0005
index	(0.0083)	(0.0082)
Public sector	0.0179*	0.0214**
size index	(0.0093)	(0.0089)
Distance from	-0.0005	-0.0004
the party avg.	(0.0003)	(0.0003)
Distance from	-0.0003	-0.0004
the region avg.	(0.0005)	(0.0004)
Share extreme	-0.0456***	-0.0302*
positions	(0.0161)	(0.0155)
Elected as	0.2723***	0.2654***
councillor	(0.0112)	(0.0114)
Elected as	0.1244***	0.1190***
deputy	(0.0111)	(0.0112)
Center	-0.0446**	
Party	(0.0183)	
Soc.	-0.0058	
Democrats	(0.0144)	
Nat.	-0.0048	
Coalition	(0.0162)	
The	0.0625**	
Finns	(0.0247)	
Swedish	-0.0225	
People's Party	(0.0255)	
Greens	0.0052	
	(0.0166)	
Christ.	0.0102	
Democrats	(0.0204)	
Age	0.0005*	0.0005
	(0.0003)	(0.0003)
Female	-0.0550***	-0.0570***
	(0.0073)	(0.0072)
High-income		0.0383***
		(0.0089)
Low-income		-0.0456***
		(0.0094)
Constant	0.3235***	0.3132***
	(0.0243)	(0.0182)
Observations	17,332	17,332
R-squared	0.0799	0.0810

Note: The omitted party category is the Left Alliance, a micro-party or an electoral association. The omitted income category is middle income. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

Table A.23: Correlation of attrition and other variables in 2008 for the close winners and losers at the upper threshold

	(1)	(2)
Dep. var.	Prob. of using VAA again in 2012	
Sample	Close councilors, upper threshold	Close deputies, upper threshold
Redistribution	-0.0327	0.0277
index	(0.0205)	(0.0212)
Public sector	0.0152	0.0154
size index	(0.0231)	(0.0199)
Distance from	-0.0019*	0.0006
the party avg.	(0.0010)	(0.0009)
Distance from	0.0008	-0.0014
the region avg.	(0.0012)	(0.0012)
Share extreme	-0.0687	-0.0127
positions	(0.0469)	(0.0409)
Center	-0.1126*	-0.0025
Party	(0.0574)	(0.0554)
Soc.	-0.0480	0.0587
Democrats	(0.0515)	(0.0514)
Nat.	-0.0917*	0.0666
Coalition	(0.0550)	(0.0548)
Finns	-0.0666	0.0420
Party	(0.0923)	(0.0957)
Swedish	-0.0159	0.0125
People's Party	(0.0784)	(0.0626)
Greens	-0.1065*	0.0421
	(0.0631)	(0.0549)
Christ.	-0.1101	0.1054
Democrats	(0.0881)	(0.0752)
Age	-0.0014*	0.0003
	(0.0008)	(0.0007)
Female	-0.0769***	-0.0819***
	(0.0210)	(0.0181)
High-income	-0.0118	0.0397*
	(0.0227)	(0.0227)
Low-income	-0.0424	-0.0542**
	(0.0272)	(0.0228)
Observations	2,925	3,507
R-squared	0.1526	0.1156

Note: For the higher threshold between close councilors and close deputies, the optimal bandwidth is ±2.18%. The omitted party category is the Left Alliance, a micro-party or an electoral association. The omitted income category is middle income. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

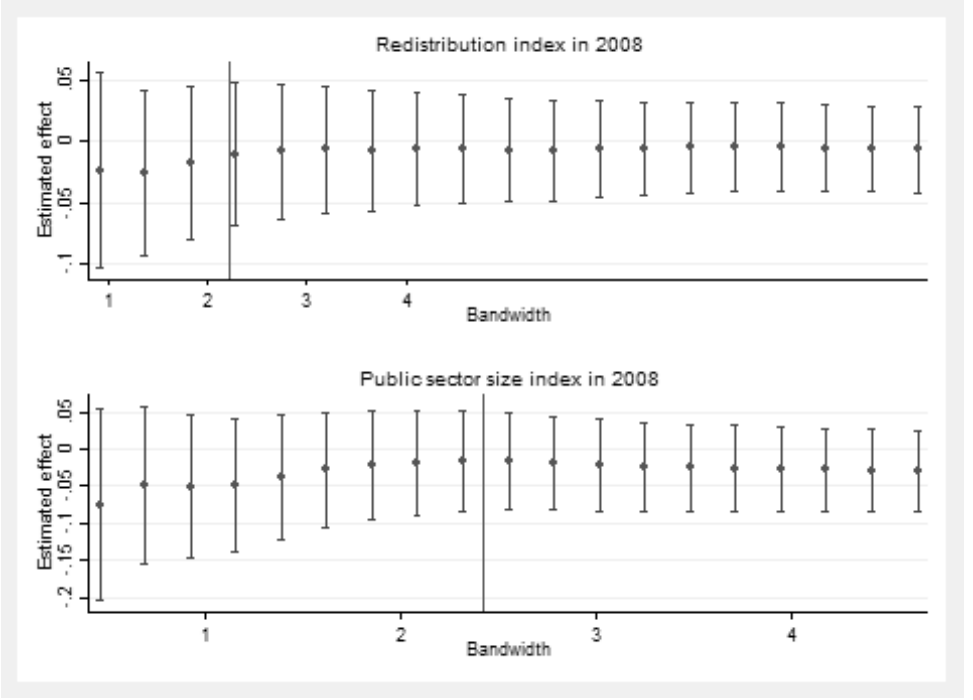
Table A.24: Correlation of attrition and other variables in 2008 for the close winners and losers at the lower threshold

	(1)	(2)
Dep. var.	Prob. of using VAA again in 2012	
Sample	Close deputies, lower threshold	Close non-elected, lower threshold
Redistribution	0.0659**	0.0016
index	(0.0291)	(0.0166)
Public sector	-0.0103	0.0255
size index	(0.0257)	(0.0195)
Distance from	0.0004	0.0002
the party avg.	(0.0011)	(0.0008)
Distance from	-0.0023	-0.0002
the region avg.	(0.0015)	(0.0010)
Share extreme	0.0122	-0.0450
positions	(0.0506)	(0.0411)
Center	-0.0080	-0.0793
Party	(0.0597)	(0.0481)
Soc.	0.0730	-0.0382
Democrats	(0.0572)	(0.0362)
Nat.	0.0630	-0.0586
Coalition	(0.0527)	(0.0473)
Finns	0.1857**	0.0071
Party	(0.0932)	(0.1060)
Swedish	-0.0708	0.0073
People's Party	(0.0716)	(0.0986)
Greens	0.1252*	0.0195
	(0.0658)	(0.0453)
Christ.	0.1444	-0.0572
Democrats	(0.0899)	(0.0672)
Age	0.0003	0.0017**
	(0.0009)	(0.0008)
Female	-0.0792***	-0.0637***
	(0.0225)	(0.0201)
High-income	0.0270	0.0136
	(0.0292)	(0.0219)
Low-income	-0.0860***	-0.0309
	(0.0283)	(0.0238)
Observations	2,226	2,997
R-squared	0.1764	0.0953

Note: For the lower threshold between close deputies and close non-elected, the optimal bandwidth is ±0.60%. The omitted party category is the Left Alliance, a micro-party or an electoral association. The omitted income category is middle income. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

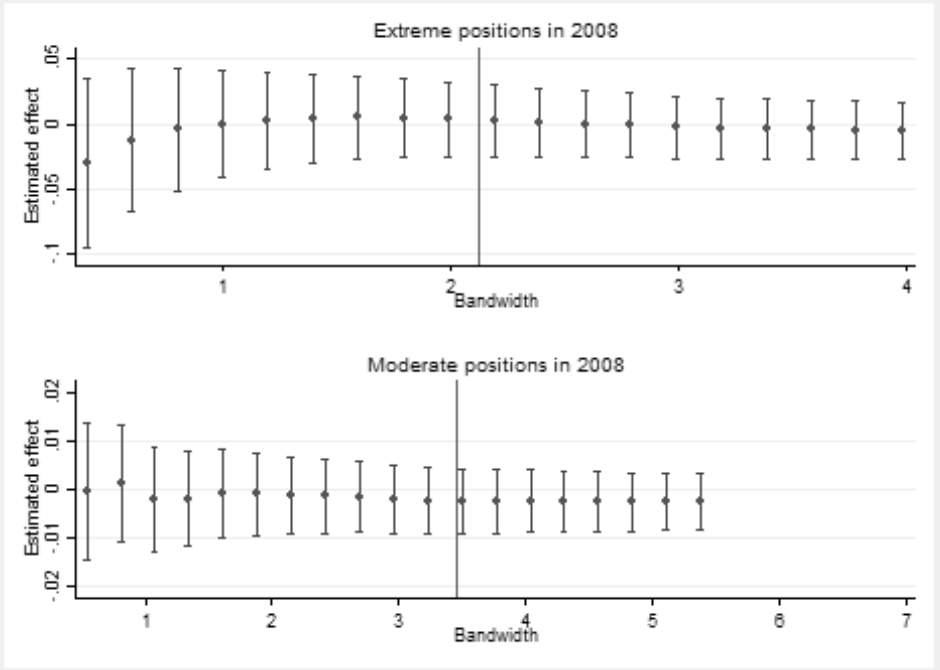
APPENDIX B: Results for 2008

Figure B.1: Robustness to bandwidth in 2008: Policy indices, municipal councilors vs. deputies



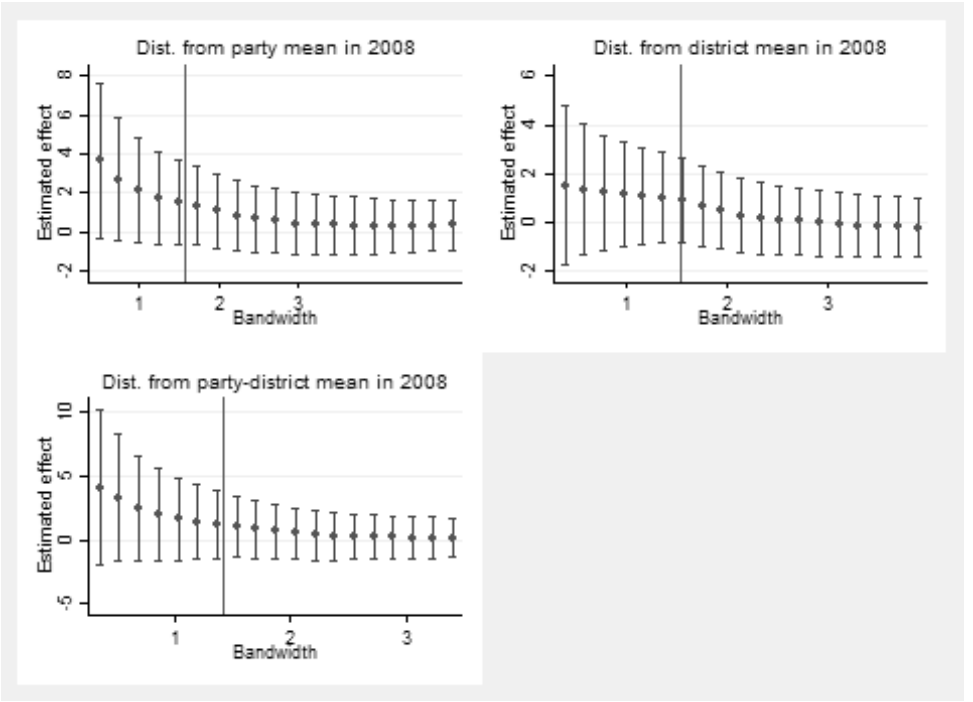
Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support within each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure B.2: Robustness to bandwidth in 2008: Ambiguity indices, municipal councilors vs. deputies



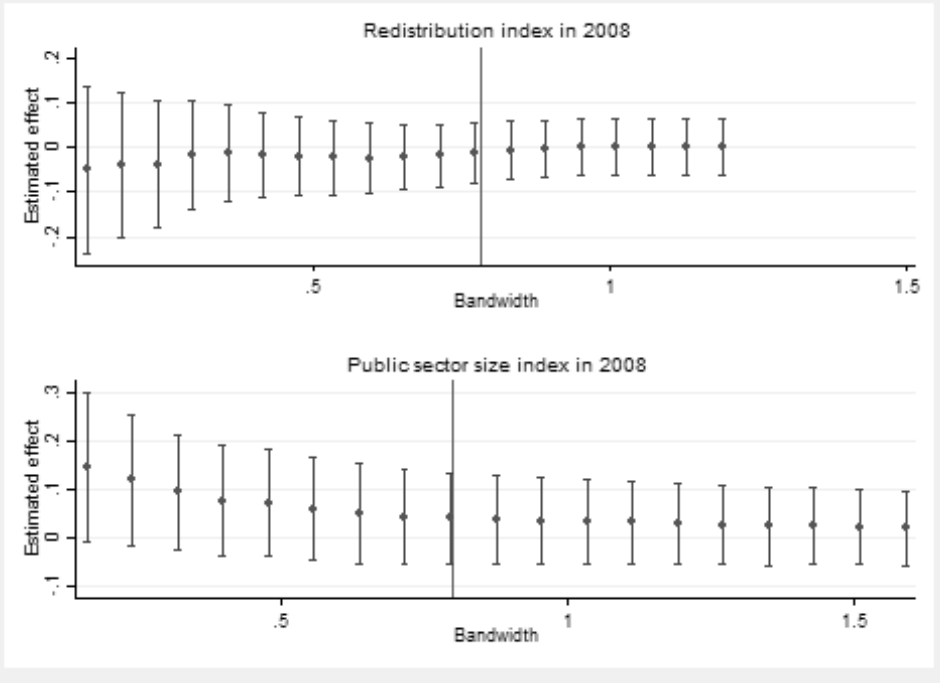
Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure B.3: Robustness to bandwidth in 2008: Distance measures, municipal councilors vs. deputies



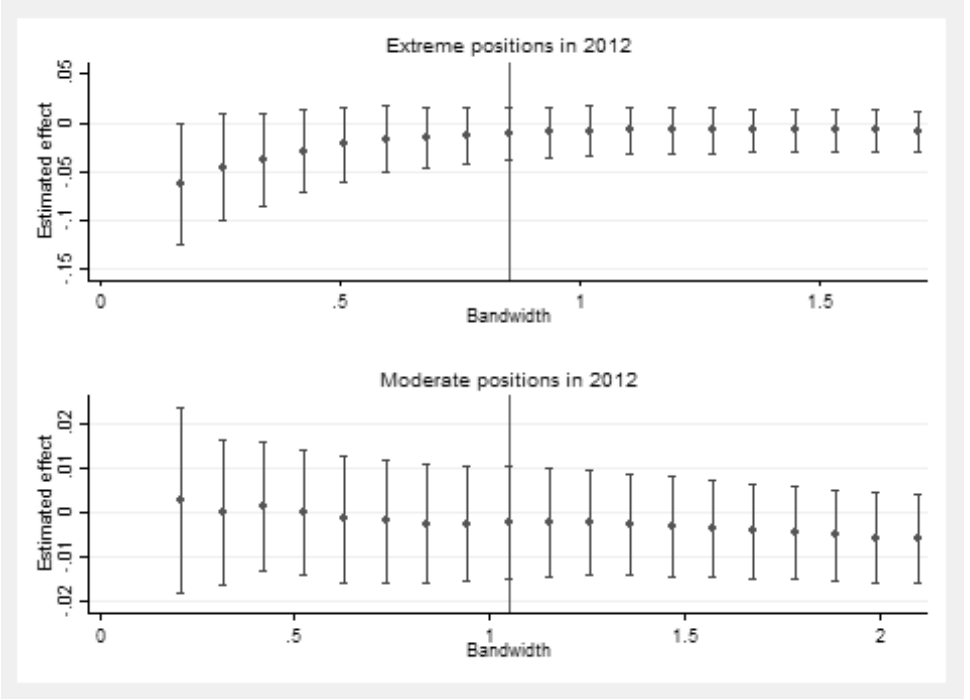
Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure B.4: Robustness to bandwidth in 2008: Policy indices, deputies vs. non-elected candidates



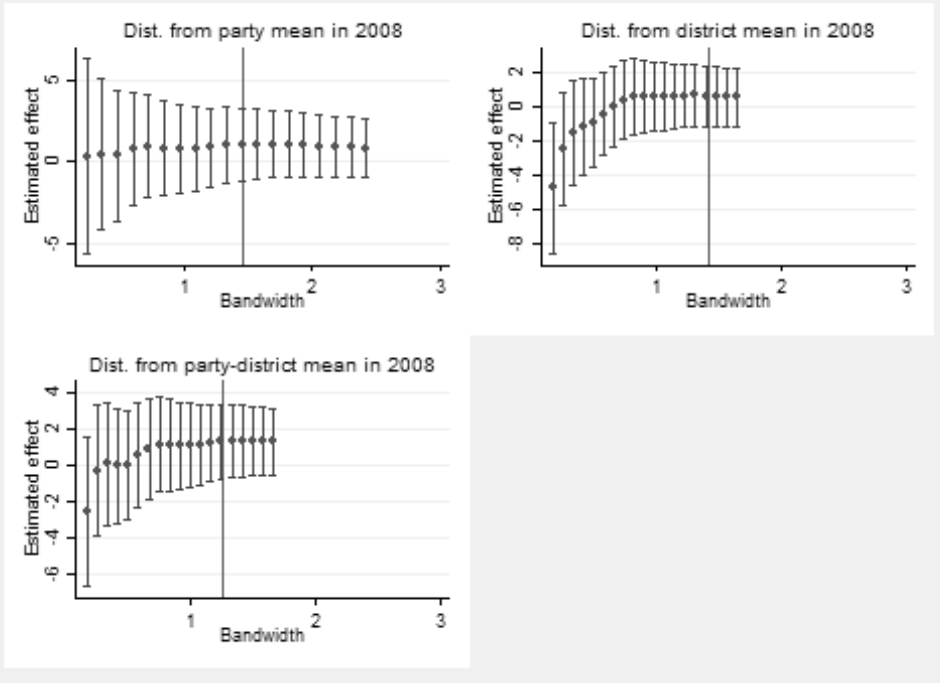
Note: The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support within each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure B.5: Robustness to bandwidth in 2008: Ambiguity indices, deputies vs. non-elected candidates



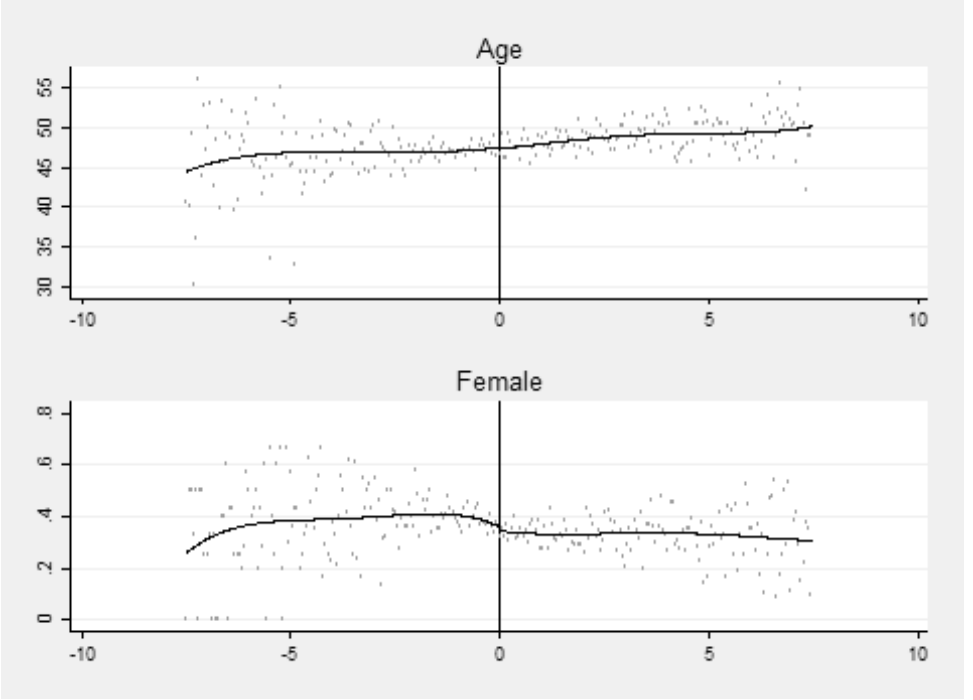
Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure B.6: Robustness to bandwidth in 2008: Distance measures, deputies vs. non-elected candidates



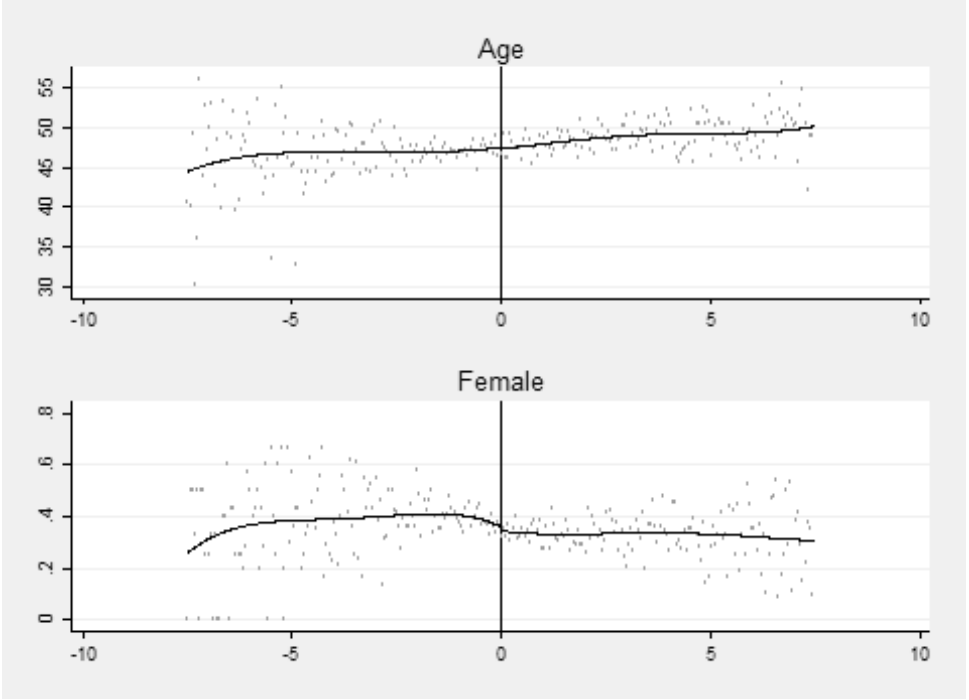
Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012).

Figure B.7: Continuity of predetermined socio-economic variables: Municipal councillors vs. deputies in 2004



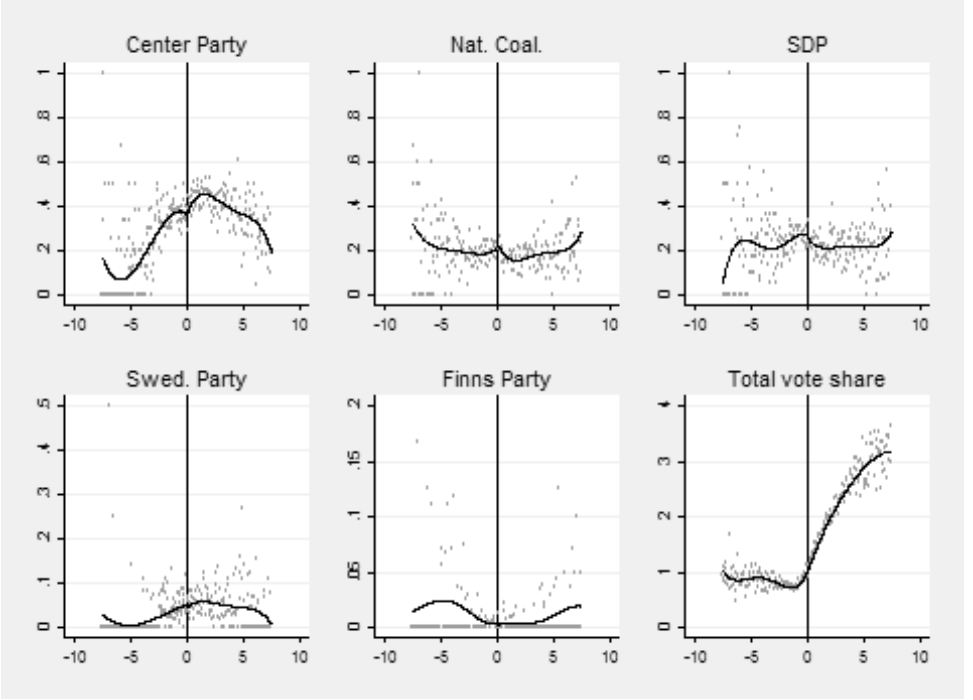
Note: The graphs show only the subsample running also in 2008. The data comes from the electoral statistics.

Figure B.8: Continuity of predetermined socio-economic variables: Deputies vs. non-elected candidates in 2004



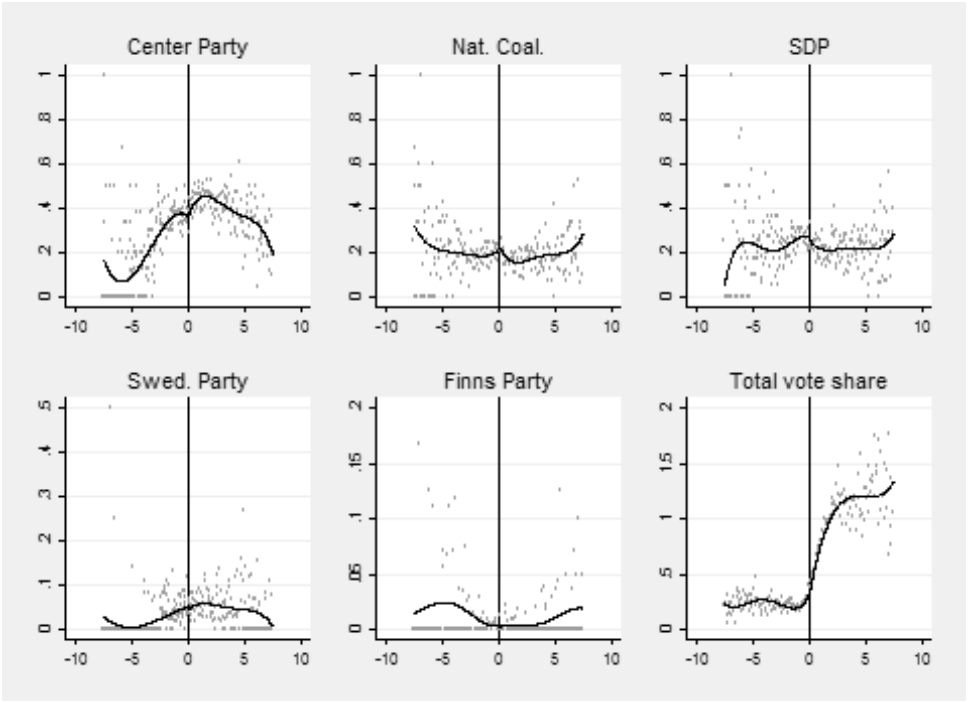
Note: The graphs show only the subsample running also in 2008. The data comes from the electoral statistics.

Figure B.9: Continuity of predetermined political variables: Municipal councillors vs. deputies in 2004



Note: The graphs show only the subsample running also in 2008. The data comes from the electoral statistics. The Center Party and National Coalition are conservative, the Social Democrats (SDP) are leftist, the Swedish People's Party is liberal, and the Finns Party is populist. "Total vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality.

Figure B.10: Continuity of predetermined political variables: Deputies vs. non-elected candidates in 2004



Note: The graphs show only the subsample running also in 2008. The data comes from the electoral statistics. The Center Party and National Coalition are conservative, the Social Democrats (SDP) are leftist, the Swedish People's Party is liberal, and the Finns Party is populist. "Total vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality.

Table B.1: Heterogeneous incumbency effect in 2008 on the policy indices, by size of the municipality:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Redist.	Size	Redist.	Size	Redist.	Size	Redist.	Size
Sample	At least middle-sized				Small			
	Councilors, 2008		Deputies, 2008		Councilors, 2008		Deputies, 2008	
$\text{Elected}_{\text{t-4}}$	-0.0127	-0.0109	-0.0040	0.0343	-0.0084	-0.0396	-0.0858	0.0449
	(0.0340)	(0.0413)	(0.0358)	(0.0492)	(0.0652)	(0.0648)	(0.0931)	(0.1148)
$\text{Elected}_{\text{t-4}}$	-0.0239	-0.0426	-0.0053	0.0656	-0.0314	-0.0446	-0.1162	0.0812
(½ bandwidth)	(0.0418)	(0.0523)	(0.0546)	(0.0602)	(0.0859)	(0.0880)	(0.1100)	(0.1331)
Observations	2,606	2,580	1,949	2,131	717	921	301	220
Opt. bandwidth	2.125	2.085	0.770	0.881	2.045	3.043	1.667	1.152

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. The policy indices summarize the policy positions on redistribution and size of public sector. A larger number indicates more support for each domain. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.2: Heterogeneous incumbency effect in 2008 on the moderation and extremism indices, by size of the municipality:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation	Extremism	Moderation
Sample	At least middle-sized				Small			
	Councilors, 2008		Deputies, 2008		Councilors, 2008		Deputies, 2008	
$Elected_{t-4}$	0.0032	0.0011	0.0103	-0.0094	0.0168	-0.0119	0.0810*	0.0069
	(0.0168)	(0.0036)	(0.0159)	(0.0078)	(0.0252)	(0.0141)	(0.0459)	(0.0146)
$Elected_{t-4}$	-0.0056	0.0014	0.0078	-0.0142	0.0097	-0.0175	0.0662	-0.0038
(½ bandwidth)	(0.0246)	(0.0044)	(0.0209)	(0.0124)	(0.0314)	(0.0222)	(0.0628)	(0.0184)
Observations	2,841	3,413	2,371	2,010	1,282	829	313	273
Opt. bandwidth	1.743	2.619	0.909	0.711	5.735	2.299	1.407	1.195

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.3: Heterogeneous incumbency effect in 2008 on the distance from (by size of the municipality):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party avg.	Region avg.	Party-region avg.	Party avg.	Region avg.	Party-region avg.
Sample	At least middle-sized					
	Councilors, 2008			Deputies, 2008		
$\text{Elected}_{\text{t-4}}$	1.0718	0.0171	0.2710	1.0426	0.5575	0.1828
	(1.1443)	(0.7922)	(1.0260)	(1.4144)	(1.2220)	(1.5706)
$\text{Elected}_{\text{t-4}}$	2.3625	1.0304	1.3546	0.9556	-1.0521	-0.2614
(½ bandwidth)	(1.6175)	(1.0779)	(1.5530)	(2.0816)	(1.5465)	(1.8757)
Observations	2,671	3,189	2,698	2,321	1,839	1,185
Opt. bandwidth	1.854	2.615	2.669	1.028	0.694	0.521

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.4: Heterogeneous incumbency effect in 2008 on the distance from (by size of the municipality):

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party avg.	Region avg.	Party-region avg.	Party avg.	Region avg.	Party-region avg.
Sample	Small					
	Councilors, 2008			Deputies, 2008		
$\text{Elected}_{\text{t-4}}$	0.8308	-0.1832	-0.2613	0.6555	-0.0932	-1.4603
	(1.4226)	(1.7120)	(1.7006)	(3.0134)	(2.3047)	(2.5056)
$\text{Elected}_{\text{t-4}}$	1.6438	0.8860	-0.2228	-5.0632	-1.7876	1.6948
(½ bandwidth)	(1.7789)	(2.2026)	(2.0940)	(4.2445)	(3.7567)	(3.8801)
Observations	955	867	706	307	356	327
Opt. bandwidth	3.664	2.800	2.596	1.566	1.871	2.087

Note: I classify a municipality as small if its electorate numbers less than 5500 persons. The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.5: Sensitivity to the choice of optimal bandwidth in 2008: Incumbency effect on the policy indices

	(1)	(2)	(3)	(4)
Dep. var.	Redist.	Size	Redist.	Size
Sample	Councilors, 2008		Deputies, 2008	
$\text{Elected}_{\text{t-4}}$	-0.0074	-0.0250	-0.0017	0.0247
	(0.0251)	(0.0299)	(0.0313)	(0.0403)
Observations	4,223	4,191	2,916	2,885
Optimal bandwidth	3.558	3.472	1.423	1.378

Note: The policy indices summarize the policy positions on redistribution and size of public sector. Local linear regressions using a triangle kernel with the optimal bandwidth by Calonico, Cattaneo and Titiunik (2014). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.6: Sensitivity to the choice of optimal bandwidth in 2008: Incumbency effect on the moderation and extremism indices

	(1)	(2)	(3)	(4)
Dep. var.	Extremism	Moderation	Extremism	Moderation
Sample	Councilors, 2008		Deputies, 2008	
$\text{Elected}_{\text{t-4}}$	-0.0043	-0.0024	0.0127	-0.0024
	(0.0113)	(0.0033)	(0.0150)	(0.0046)
Observations	4,950	5,063	2,991	3,604
Optimal bandwidth	3.661	3.921	1.161	1.838

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Calonico, Cattaneo and Titiunik (2014). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.7: Sensitivity to the choice of optimal bandwidth in 2008: Incumbency effect on the distance from:

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average	Region average	Party-region average	Party average	Region average	Party-region average
Sample	Councilors, 2008			Deputies, 2008		
$\text{Elected}_{\text{t-4}}$	0.2851	-0.1685	0.2099	1.0501	0.6440	1.2362
	(0.7099)	(0.6263)	(0.6781)	(1.0838)	(0.9018)	(1.0559)
Observations	4,697	4,574	4,229	3,086	2,978	2,296
Optimal bandwidth	4.175	3.614	5.108	1.590	1.365	1.211

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Calonico, Cattaneo and Titiunik (2014). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.8: Balance of the pre-determined variables in 2004

	Age	Female	Total vote share
Sample		Councilors, 2004	
$\text{Elected}_{\text{t-4}}$	-0.0747	-0.0280	-0.0418
	(0.4988)	(0.0267)	(0.0302)
$\text{Elected}_{\text{t-4}}$	-0.1164	-0.0187	-0.0324
(½ bandwidth)	(0.6540)	(0.0343)	(0.0426)
Observations	7,961	6,539	3,809
Opt. bandwidth	2.510	1.757	0.858
Sample		Deputies, 2004	
$\text{Elected}_{\text{t-4}}$	-0.2074	0.0087	0.0106
	(0.7666)	(0.0267)	(0.0162)
$\text{Elected}_{\text{t-4}}$	-0.1463	0.0221	-0.0082
(½ bandwidth)	(1.0497)	(0.0358)	(0.0212)
Observations	4,843	5,519	3,951
Opt. bandwidth	0.792	0.945	0.621

Note: The estimations are done only for the subsample running also in 2008. All the data comes from the electoral statistics. "Total vote share" equals the votes of a candidate divided by the vote tally of all the candidates in the municipality. *** p<0.01, ** p<0.05, * p<0.1

Table B.9: Balance of the pre-determined variables: party affiliations in 2004

	Center Party	Nat. Coal.	Soc. Dem.	Swed. Party	Finns	Greens	Left All.	Christ.Dem.
Sample								
$\text{Elected}_{\text{t-4}}$	-0.0125	0.0217	-0.0033	-0.0065	-0.0014	-0.0023	0.0088	0.0004
	(0.0236)	(0.0168)	(0.0218)	(0.0099)	(0.0014)	(0.0044)	(0.0085)	(0.0060)
$\text{Elected}_{\text{t-4}}$	-0.0414	0.0265	0.0111	-0.0108	-0.0018	0.0036	0.0080	-0.0050
(½ bandwidth)	(0.0295)	(0.0243)	(0.0261)	(0.0104)	(0.0014)	(0.0068)	(0.0103)	(0.0073)
Observations	5,388	6,189	5,047	7,120	6,389	5,981	6,555	8,269
Opt. bandwidth	1.308	1.616	1.195	2.040	1.699	1.526	1.769	2.724
Sample								
$\text{Elected}_{\text{t-4}}$	-0.0174	0.0373	-0.0014	0.0003	-0.0316***	0.0077	0.0119	0.0018
	(0.0235)	(0.0249)	(0.0282)	(0.0060)	(0.0118)	(0.0117)	(0.0155)	(0.0067)
$\text{Elected}_{\text{t-4}}$	-0.0367	0.0559	0.0262	0.0027	-0.0443**	0.0033	0.0092	-0.0023
(½ bandwidth)	(0.0280)	(0.0357)	(0.0337)	(0.0091)	(0.0179)	(0.0106)	(0.0159)	(0.0077)
Observations	5,467	3,701	5,571	4,957	3,160	7,421	6,645	5,006
Opt. bandwidth	0.929	0.577	0.961	0.813	0.492	1.701	1.317	0.825

Note: The estimations are done only for the subsample running also in 2008. All the data comes from the electoral statistics. The Center Party, the National Coalition, and the Christian Democrats are conservative, the Swedish People's Party and the Greens are liberal, the Social Democrats and the Left Alliance are leftist, and the Finns Party is populist. *** p<0.01, ** p<0.05, * p<0.1

Table B.10: Sensitivity to control variables: Incumbency effect on the policy indices

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. var.	More redistribution				Larger public sector			
Sample	Councilors, 2008							
$\text{Elected}_{\text{t-4}}$	-0.0094	-0.0089	-0.0088	-0.0090	-0.0168	-0.0153	-0.0126	-0.0145
	(0.0203)	(0.0203)	(0.0205)	(0.0203)	(0.0319)	(0.0316)	(0.0318)	(0.0315)
Sample	Deputies, 2008							
$\text{Elected}_{\text{t-4}}$	-0.0255	-0.0243	-0.0221	-0.0254	0.0441	0.0464	0.0482	0.0449
	(0.0449)	(0.0450)	(0.0453)	(0.0439)	(0.0453)	(0.0453)	(0.0447)	(0.0447)
Right-left affiliation	X	X	X	X	X	X	X	X
Age, gender		X	X	X		X	X	X
Income			X				X	
Municipal employee				X				X

Note: The policy indices summarize the policy positions on redistribution and size of public sector. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.11: Sensitivity to control variables: Incumbency effect on the moderation and extremism indices:

	(1)	(2)	(3)	(4)
Dep. var.	Extremism		Moderation	
Sample	Councilors, 2008			
$\text{Elected}_{\text{t-4}}$	0.0032	0.0013	-0.0016	-0.0015
	(0.0145)	(0.0146)	(0.0036)	(0.0036)
Sample	Deputies, 2008			
$\text{Elected}_{\text{t-4}}$	0.0137	0.0111	-0.0093	-0.0094
	(0.0155)	(0.0154)	(0.0078)	(0.0079)
Age, gender	X	X	X	X
Municipal employee		X		X

Note: Moderation refers to the share of "Don't know" or empty responses. Extremism refers to the share of "Strongly agree" or "Strongly agree" responses. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.12: Sensitivity to control variables: Incumbency effect on the distance from:

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. var.	Party average		Region average		Party-region average	
Sample	Councilors, 2008					
$\text{Elected}_{\text{t-4}}$	0.6351	0.6601	0.4699	0.5499	0.8569	0.8130
	(0.8751)	(0.8872)	(0.7963)	(0.8054)	(1.1451)	(1.1722)
Sample	Deputies, 2008					
$\text{Elected}_{\text{t-4}}$	0.9087	0.9318	0.6795	0.7901	1.2049	1.2198
	(1.2331)	(1.2250)	(1.1305)	(1.1136)	(1.2934)	(1.2732)
Age, gender	X	X	X	X	X	X
Municipal employee		X		X		X

Note: The dependent variables refer to the Mahalanobis distances from the respective average policy positions. Local linear regressions using a triangle kernel with the optimal bandwidth by Imbens and Kalyanaraman (2012). Standard errors clustered at the municipality level. Observations refer to the number of the observations within each bandwidth. *** p<0.01, ** p<0.05, * p<0.1

Table B.13: Correlation of attrition and other variables in 2004

	(1)
Dep. var.	Prob. of running again in 2008
Sample	All, 2004
Elected as	0.2998***
councillor	(0.0078)
Elected as	0.1287***
deputy	(0.0073)
Center	0.0236
Party	(0.0146)
Soc.	0.0611***
Democrats	(0.0157)
Nat.	0.0343**
Coalition	(0.0153)
The	0.0760***
Finns	(0.0244)
Swedish	0.0047
People's Party	(0.0223)
Greens	0.0371**
	(0.0185)
Christ.	0.0465***
Democrats	(0.0167)
Age	0.1172***
	(0.0150)
Female	0.0026***
	(0.0002)
Constant	-0.0568***
	(0.0052)
Observations	39,745
R-squared	0.0888

Note: The omitted party category is the Left Alliance, a micro-party or an electoral association. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

Table B.14: Correlation of attrition and other variables in 2004 for the close winners and losers at the upper threshold

	(1)	(2)
Dep. var.	Prob. of running again in 2008	
Sample	Close councilors, upper threshold	Close deputies, upper threshold
Center	-0.0419	-0.0069
Party	(0.0382)	(0.0129)
Soc.	0.0019	0.0069
Democrats	(0.0370)	(0.0133)
Nat.	0.0151	-0.0361***
Coalition	(0.0431)	(0.0120)
Finns	0.0778	-0.0207
Party	(0.1573)	(0.0223)
Swedish	-0.0884	-0.0025
People's Party	(0.0695)	(0.0217)
Greens	0.0764	-0.0502***
	(0.0751)	(0.0165)
Christ.	-0.0588	-0.0313*
Democrats	(0.0731)	(0.0170)
Age	0.0001	0.0031***
	(0.0008)	(0.0003)
Female	-0.0978***	-0.0425***
	(0.0185)	(0.0064)
Observations	3,801	21,898
R-squared	0.1168	0.0378

Note: For the higher threshold between close councilors and close deputies, the optimal bandwidth is ±1.18%. The omitted party category is the Left Alliance, a micro-party or an electoral association. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

Table B.15: Correlation of attrition and other variables in 2004 for the close winners and losers at the lower threshold

	(1)	(2)
Dep. var.	Prob. of running again in 2008	
Sample	Close deputies, lower threshold	Close non-elected, lower threshold
Center	-0.0827***	-0.0075
Party	(0.0229)	(0.0139)
Soc.	-0.0027	-0.0212
Democrats	(0.0242)	(0.0151)
Nat.	-0.0261	-0.0394***
Coalition	(0.0248)	(0.0129)
Finns	-0.1687**	-0.0803**
Party	(0.0794)	(0.0313)
Swedish	-0.0952*	-0.0354
People's Party	(0.0506)	(0.0242)
Greens	-0.0190	-0.0379
	(0.0421)	(0.0242)
Christ.	-0.0810**	0.0093
Democrats	(0.0409)	(0.0237)
Age	0.0034***	0.0031***
	(0.0005)	(0.0003)
Female	-0.0533***	-0.0680***
	(0.0121)	(0.0076)
Observations	7,846	22,585
R-squared	0.0878	0.0434

Note: For the lower threshold between close deputies and close non-elected, the optimal bandwidth is ±1.24%. The omitted party category is the Left Alliance, a micro-party or an electoral association. All the specifications control for the municipality effects. Standard errors clustered at the municipal level. *** p<0.01, ** p<0.05, * p<0.1

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