

After Apartheid: The Effects of ANC Power

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Abstract

The African National Congress (ANC) can look back on eighty years of struggle which resulted in the liberation of black Africans, the creation of a democratic constitution and free elections. However, the last twenty years of ANC rule has been criticized for the failure to bring higher living standards for the formerly oppressed. With the party's dominance and the challenges facing South Africa in mind, I estimate the effect of ANC power in municipalities on economic, social and budgetary outcomes. To estimate the causal effect of the party, this paper uses an instrumental variable approach developed by Freier & Odendahl (2012) and a regression discontinuity design. Taken together, the results point to an adverse effect of the party: less is spent on repairs and water provision which in turn may explain why ANC power seems to lower the share of individuals who have access to piped water and electricity. Further, more resources are used on municipal employees and the councillors themselves, while I find suggestive evidence of an increase in the poverty rate due to the party. Lastly, although being their major political support, we cannot conclude that the ANC affects black African's living standards. From the IV analysis, I find indications that oppositional parties many times have a more positive impact on outcomes as they gain power at the expense of the ANC.

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1 Introduction

Few post-colonial countries can compare to South Africa's highly successful transition to democracy. In many instances, the transition can be attributed to the African National Congress' reconciliatory politics under Nelson Mandela.¹ In the soon to be twenty years since the end of apartheid, black Africans have gained their political freedom, many more have access to clean water and electricity, a saluted constitution has been installed, and absolute poverty has gone down. Indeed, the fact that the government has refrained from pursuing retribution after F.W. de Klerk left power in 1994 is a token of the willingness to change the country to the better for all citizens. Nonetheless, as the Economist notes [9], the problems facing the country are numerous:

"In the past decade Africa to the north of the Limpopo river has been growing at an annual average clip of 6 per cent, whereas South Africa's rate for the past few years has slowed to barely 2 per cent./.../ Foreign investment is drying up. Protests against the state's failure to provide services are becoming angrier. Education is a disgrace: according to the World Economic Forum, South Africa ranks 132nd out of 144 countries for its primary education and 143rd in science and maths. The unemployment rate, officially 25 per cent, is probably nearer 40 per cent; half of South Africans under 24 looking for work have none. Of those who have jobs, a third earn less than \$2 a day. Inequality has grown since apartheid, and the gap between rich and poor is now among the worlds largest."

Due to its complete political dominance, these seemingly failures have all been under the ANC's watch. Celebrating its centenary in 2012 and twenty years with freedom in 2014, several issues have recently been raised dealing with the ANC, the major one being how South Africa will cope after Mandela. Also, facing a general election in 2014, it is not obvious that the support for the party will be as strong as during the last twenty years; corruption charges against President Zuma and increased political competition from the Democratic Alliance and Mamphela Ramphele's newly established party Agang put the ANC's popularity under pressure.

This paper seeks to measure the effect of ANC power on economic and social outcomes in a very broad sense. The party's dominance and the challenges facing South Africa highlight the importance of exploring how the ANC affects the country it governs. By exploiting close municipal elections, I utilize an instrumental variable approach (IV) and a regression discontinuity design (RDD) to measure the specific party effect on several municipal-budget outcomes, service delivery, unemployment and poverty. All in all, my results point towards an adverse effect of ANC power, although we should be careful when interpreting the results due to some robustness issues, thoroughly discussed under Section 4.3.

Since the ANC represents a particular set of voters, an estimation where we simply compare municipalities with an ANC majority to municipalities with an ANC minority would suffer

¹For an excellent overview over South Africa and the ANC after apartheid, see Alec Russel's *After Mandela: The Battle for the Soul of South Africa* (2009)

from an endogeneity problem; the results would probably say more about the voters than the party. To control for this issue, I start out by following recent research using the RDD in an election setting (these include Ferreira & Gyorko [15], Lee et al. [29], Pettersson-Lidbom [42], Meyersson [38]) using data from the 2000 and 2006 municipal elections and outcomes from municipal budgets from 2004/2005 and 2010/2011 as well as 2011 census data. Having a mixed-member proportional representation system implies that municipalities where the ANC receives more than 50 per cent of the seats are in effect governed by an ANC majority. Consequently, if the party wants to implement a policy or alter the budget from last year in conflict with the minority, they will do so by winning the vote in the municipal council. The idea is then to use this fact and compare outcomes for municipalities where the ANC vote share or seat share are just over 50 per cent to municipalities where they are just below 50 per cent, a comparison which should be as good as random.

However, the RD approach hinges on the assumption that the winning threshold is 50 per cent. In a proportional election system such as South Africa's, there are no fixed thresholds. Thus, I employ a novel method developed by Freier & Odendahl [17] that uses close election outcomes as a source of exogenous variation to estimate the effect of parties on policy outcomes. Following the authors, I am isolating close elections by repeatedly perturbing the vote vectors of each party in each municipality, adding a random variable to the vectors. Subsequently, new seat allocations are simulated for each party. Those observations for which seat allocations changes often are considered close. These close seats - i.e. a seat that a party was close to losing or winning, but did not - are then instrumented for. Since seat shares add up to one by definition, I leave out the ANC from these IV regressions and estimate the effect of gains in other parties' seat shares at the expense of the ANC on outcomes. These other parties are the Democratic Alliance and the Inkatha Freedom Party, for which I present a background in Section 2. As to the comparability of the results from these two methods, for parties that are true contenders to the ANC such as the DA in Western Cape and the IFP in KwaZulu-Natal, it might be reasonable to expect opposite signs between the IV estimates and the RD estimates.

With the aforementioned specifications, this paper puts forward three sets of results. First, by analyzing revenues and expenditure from municipal budgets, I find suggestive evidence that property rates as a revenue source drop when the ANC loses seat shares, while an ANC-led municipality receives less revenues from service charges. Looking at municipal expenditure, it seems as if less is spent on employees and the councillors themselves when ANC loses seat shares. Furthermore, being a highly debated subject in South Africa, I investigate the effect of ANC power on three spending variables that have to do with service delivery. For spending on infrastructural repairs and maintenance, the RD estimates are negative. Also, ANC power seems to lead to less spending on water provision. No evidence is found of an effect on electricity delivery. A rather puzzling result is that on inter-governmental grants which shows positive estimates using both methods, i.e. an ANC majority leads to more revenues stemming from grants (RDD), but grants as a revenue source also seem to increase as other parties gain seat shares at the expense of the ANC (IV). I conclude that these conflicting results may be caused

by the local average treatment effects entailed by the RD approach.

Second, analyzing the effects of ANC power on social and economics outcomes, I find suggestive evidence of a negative effect on the share of individuals with electricity. Since no conclusions could be drawn regarding the ANC's effect on spending on electricity, this result may instead be explained by less repairs and maintenance. Likewise and in line with the finding that less is spent on water provision, I find that a smaller share have access to piped water inside their dwellings as a consequence of ANC power. From the IV estimates, one suggestion is that this also is due to the Inkatha Freedom Party. Exploring two major economic outcomes, I find no effect on unemployment and only suggestive evidence that ANC power leads to a higher poverty rate.

Lastly, and noteworthy in light of ANC's goals since the end of apartheid, it seems as if no conclusive evidence of a causal effect of ANC on black African's living standards can be discerned. It is undoubtedly so that the ANC has been the main driving force behind the freedom that black Africans enjoy in today's South Africa. However, underlined by this paper, the causal effect of today's ANC is in many ways adverse, and it does not seem as if the party is better at promoting living standards for black Africans than the political opposition. These findings are yet more conspicuous in a country where such a party receives overwhelming electoral support. However, I of course cannot say anything about living standards in the sense of living free from oppression. Being the movement that brought this freedom to black Africans, it might be understandable that the party receives vote shares as big as those we have seen up until now.

Below, Section 2 describes the institutional framework and Section 3 describes the IV and RD approaches and the data used in the analysis. Section 4 goes through the empirical results and examines the validity of those results. Section 5 concludes the paper.

2 Institutional Framework

2.1 Local Government and Elections

Having three tiers of government, South African voters elect representatives at the national, provincial and local levels, of which this paper focuses on the local sphere. Local government is made up of municipalities which in turn are subdivided into metropolitan municipalities and (226) local municipalities nested within district municipalities.² [46] The first municipal election after the end of apartheid took place in 1995/1996 and was followed by elections in 2000, 2006 and 2011. Due to institutional remnants from the apartheid regime and demarcation disputes, the 1995/1996 election was delayed in the provinces Western Cape and KwaZulu-Natal and thus deemed not entirely democratic. [31] As a consequence, I exclude that election from the analysis and focus on the 2000 and 2006 elections (the 2011 election is too close in time for obtaining outcome data).

²Due to its inclusion of the local municipalities, the district municipalities (as defined in year 2000 and 2006) are dropped in the empirical analysis. There are however district management areas made up of scarcely populated areas and nature reserves that are taken into account in the analysis.

Municipal elections follow a mixed-member proportional representation system (MMP) and each municipality has a council consisting of elected members. The council successively elects a mayor who have at her disposal a mayoral committee made up of councillors. Parts of the council representation mirror the proportion of votes a party receives, i.e. 50 per cent of all seats are given by proportional representation, while the other half is made up of ward councillors elected through a first-past-the-post system by the residents of each ward. It is in this sense the system is "mixed". In order to perform the necessary simulations for the estimations of the IV regressions (presented in Section 3) as described in Freier & Odendahl [17], we need to have a full understanding of the MMP system. The total number of seats for each party are allocated by the largest remainder method, utilizing a modified Hare quota (or a modified Droop quota to be more precise). The principle behind the largest remainder method is to first calculate the number of votes required for a seat, resulting in a quota. Each party's votes are then divided by this quota and the integer of the resulting fraction gives the first allocation of seats. In the final step, unallocated seats are distributed on the basis of the remaining decimals after subtracting the integer (hence the name of the method). For example, if there are three seats left to allocate, the three parties with the highest remaining fractions left after subtracting the integer will each receive one more seat in the municipal council.

In the South African context, the quota is calculated as follows:

$$Q = \frac{V}{S - I} + 1$$

where V is the total number of votes for all parties (including wards and excluding votes on independents), S is all available seats in the municipal council (determined in terms of the Local Government Structures Act of 1998), and I is the number of independent candidates (independents can only run in ward elections). The total number of seats allocated to party i is then given by:

$$\frac{v_i}{Q} = s_{i1} + s_{i2}$$

Here, v_i is party i 's total number of votes. s_{i1} is the integer of the fraction and thus the first allocation of municipal-council seats. s_{i2} is the remaining decimals after subtracting the integer that determines whether party i receives one more seat in the second allocation. For clarity, the method is best described by an example. A municipality has three parties: the African National Congress, the Democratic Alliance, and the Inkatha Freedom Party. There are seven available seats in this municipal council. We assume that $s_{DA,1} + s_{DA,2} = 1.68$, $s_{IFP,1} + s_{IFP,2} = 1.47$,

and $s_{ANC,1} + s_{ANC,2} = 3.52$. Thus, in the first allocation, the DA receives one seat, the IFP receives one seat, and the ANC receives three seats. In the second allocation, the DA is ranked first and the ANC is ranked second so that they both receive one more seat, while the IFP ends up with one seat. [25]

The rudimentary functioning of the ward councillor - together with her maximum of ten ward-committee members elected during constituency meetings - is to facilitate participatory democracy on a local level. [39] The powers vested in the ward committee are mainly advisory, and usually take the form of recommendations to the municipal council. There are however instances when the municipal council delegates essentially any duties to the ward committees, and it is up to the council to do so. [39] The most important thing to note about the ward councillor is that she sits in the municipal council and has the same powers as those councillors elected through proportional representation.

The council's main duty is to pass a yearly budget that stipulates how to finance their responsibilities. Examples of these responsibilities that are vital for this paper are electricity and water delivery and the approval of a development plan. Of course, the council passes laws that revolve around these duties, and they set rates and service fees. [13] Municipal governments receive their funds from state government grants (these are mainly for infrastructure investments such as water service projects), public and private partnerships, municipal revenues, internal and external loans, and property rates, service charges, and fines. [12]

There are however multiple evidence of how local governments have failed to deliver services, with whidespread protests as a consequence. Corruption has been said to be rife, and councillors have been accused of living in excess while neglecting the delivery of services. In one instance, in January 2006, a municipal manager resigned after granting a two million Rand loan to a municipal colleague without the approval of the municipal council. [21] In 2005, municipal officials in the Mangaung Municipality were charged for defrauding their municipality of at least 100 million Rand. [30] Moreover, The New York Times has reported on lethal violence over political posts, all the way down to the ward level. [41] The importance of service delivery, and the seemingly failure of providing it, put the issue on top of priorities before every local election.

2.2 ANC and Its Opposition

With the RD approach I analyze the effect of ANC majorities in municipal councils on policy outcomes and in the IV regressions (both approaches are described in the next section) I leave out the ANC and analyze the effect of increases in the DA's and IFP's seat shares at the expense of the ANC on policy outcomes. It is thus important to give an introduction not only to the African National Congress, but also to the Democratic Alliance and the Inkatha Freedom Party.

In many ways, the ANC has led a succesful transition from white minority rule to a stable political system, perhaps the most progressive constitution in the world, higher growth rates than during the apartheid years, strong judicial courts, and free elections. However, as noted by Jeffrey Herbst [22], today's South Africa also encompasses a very dominant ANC that "effectively

rules the country on its own, viewing any kind of opposition with suspicion". The burden of HIV and AIDS, growth rates that are far from lifting the black population out of poverty, and one of the highest inequality rates in the world, lie heavy on the country. Due to its complete political dominance, these problems are and have all been under the supervision of the ANC government since apartheid ended, and the party has been torn between black emancipation and white flight (c.f. [10]), macroeconomic stability and social demands [7], and ideological left and right formations within the party [36].

Despite the aforementioned, the ANC enjoys an overwhelming electoral support in South Africa, also on a local level. The party obtained vote shares in the 2000, 2006 and 2011 municipal elections amounting to 59.4 per cent, 66.3 per cent and 62 per cent respectively. Parts of this support come from a genuine appreciation of ANC performance, while others stem from the fact that dissatisfied black voters who cannot identify with the ANC still have highly negative views of all other parties [34]. As Mattes notes [33], this ANC hegemony has encouraged the party to become more centralistic in the sense that the national party extends their powers to the local level (Butler [6] also writes about the ANC's internal organisational democracy). For example, a local mayor is now nominated by a central committee instead of a local ANC branch.

Moreover, on a local level, widespread protests have been abundant, demanding better and cheaper service delivery and housing. Many of these protests took place in municipalities run by the ANC. Atkinson [3] tells the story of Phumelela Municipality (79 per cent ANC support in the 2000 local election and 81 per cent in 2006): consumer debts had risen with 39 per cent from 2003 to 2004, reflecting popular alienation. 45 per cent of the operating expenditure were spent on salaries, while the guideline from the National Treasury sets the maximum at 35 per cent. The municipal manager had not entered a performance agreement with the council and in effect broke South African law. When the council subsequently got dissatisfied with the leadership, the manager was redeployed to another, malfunctioning municipality. At the same time, only 16 per cent of Phumelela Municipality's population had access to sanitation, the roads were bad, many had to use a bucket toilet system, and into the water reservoir poured water contaminated by waste from another source. There are several potential explanations why problems similar to this example may exist. One is the fact that almost 49 per cent of ANC branches are seasonal [3], i.e. the councils only work a few months before major events such as an ANC conference. Another is the trend that ANC councillors do not live in the poverty-stricken municipalities they represent, but rather move to middle-class suburbs [3]. Lastly, and highlighted by the internal ANC document *Patronage and Criminalisation of the ANC* [3], there is evidence and suspicion of corruption among municipal councillors (see Section 2.1), taking the form of nepotism in the appointment of municipal staff. Looking at actual outcomes, anecdotal evidence point to several failures of the ANC government, such as a presumed deficit of more than 500,000 paying jobs [45]. These qualitative evidences but also the lack thereof are all strong arguments for exploring the causal effect of ANC power on the South African society.

Up until today, the only opposition that pose somewhat of an electoral threat to the ANC is the Democratic Alliance. In the 2000 municipal election, the party received 22.1 per cent of the

votes, and 14.8 per cent in 2006. Their main support is found in the Western Cape. The party traces back to the anti-apartheid movement and was known as the Progressive Party and later the Democratic Party. Through its short-lived alliance with the New National Party (the former ruler) it took on today's name. Historically seen, the DP and the NNP have targeted Afrikaner and English whites, Coloured and Indian voters, which has prompted the ANC to interpret the alliance "as a ganging up of white parties" [19]. Today's DA is very different, however, especially after the re-launch in November 2008 that sought to turn the party's interest to all South Africa's people. [32] Yet, it should be noted that the DA only received five per cent of the black vote in the 2011 municipal election [11].

Although the ANC has a huge electoral advantage, there has been a fierce competition between the two parties the last couple of years. Often, this competition has taken the form of attacks playing on racial and party stereotypes. For example, some ANC politicians have accused the DA for "taking the country back to the apartheid days of racial division, inequality and oppression" [11]. Even President Jacob Zuma mentioned the DA's supposedly white character in the run up to the election. This apparent tension and the prevailing inequalities between black Africans and whites that arose because of the apartheid system, permeate the social debate in South Africa and many times spill over on the competition between the ANC and the DA.

The third largest party in South Africa is the Inkatha Freedom Party (it is however the fourth largest party in the National Assembly today, following Congress of the People).³ The party received 9.1 per cent of the local-election votes in 2000, 8.1 per cent in 2006, and 5.2 per cent in 2011. The lion's share of IFP's political support comes from the province KwaZulu-Natal, which can be explained by the fact that the party was established there in 1975 and has a clear historical connection to the Zulu people. The often fierce debates between the ANC and the DA seem to have much to do with today's political competition. As for the relationship between the ANC and the IFP, the situation can only be described as even harsher. This tension sprung up in the later years of the apartheid system following the organizations' differing views on how to best bring down the white-led regime. Inkatha was a major anti-apartheid movement with approximately 350,000 members around 1980, but the leaders of Inkatha also formed the leadership of KwaZulu-Natal, a so called Homeland (also known under the name *Bantustan*), which led them to have contacts with the apartheid regime. These contacts culminated in a collaboration with the right-wing extremist Conservative Party and two other Homelands, who together proposed federal solutions to ending apartheid rather than majority rule which was what the ANC argued for. Thousands of people died in what can be described as outright warfare between the two fractions and the conflict was only solved just in time for the first democratic election. [44] The tension between the two parties remains until today and can be traced in IFP goals such as preventing "the consolidation of a one-party state", found in the party's manifesto [26].

³Other important - although rather small - political parties in South Africa are for example National Freedom Party, United Democratic Movement, African Christian Democratic Party and Pan Africanist Congress. In the IV regressions, these and other parties form the variable *Others*.

The seemingly slow process of increasing the black population’s living standards and lower the inequality between population groups in post-apartheid South Africa is an argument for analyzing the causal effect of the ANC on black African’s living standards separately. Around 80 per cent of the South African population are black Africans, while slightly less than 10 per cent are made up of whites.⁴ Looking at the summary statistics in *Table 2* which are divided between black Africans and whites to set living standards in proportion, it is clear that living standards differ immensely between the two groups. For example, in this sample, 30 per cent of black Africans have piped water inside their dwelling compared to 85 per cent of the white population,⁵ and black Africans have an unemployment rate of 40 per cent compared to ten per cent among whites. The demographical features of the black and white populations also correspond to that of many less developed respectively developed countries: the share of black Africans under the age of 19 years is more than 40 per cent while it is less than 25 per cent for whites. Also, as is apparent from the summary statistics, poverty rates are high for both groups. An official poverty line has long been discussed in South Africa (c.f. [49], [48] and [37]) and in this paper I define poverty as monthly earnings below R400. This level is somewhat higher than the famous \$1.25 per day, but still very conservative.⁶

The question is then whether the ANC focuses on policies aimed towards the black population to higher extent than the other parties, further investigated in the econometric analysis. One such affirmative action policy is the Black Economic Empowerment (BEE). The policy aims at coming to terms with the economic disparities created by apartheid, by promoting black Africans to senior positions in corporations, shift equity ownership from whites to blacks, giving black-owned companies an advantage in the bidding for public works contracts, and establishing industry-specific racial targets of ownership. [22] Thus, I run the same regressions for black Africans as I do for the entire population. Lastly, it should be noted that the DA’s position on BEE is not far from the ANC’s [8].

3 Data and Empirical Strategy

3.1 The Causal Effect of ANC Power in Municipalities

The chance that the ANC represents a particular set of voters would make us draw the wrong conclusions were we to estimate the effect of ANC rule with an OLS approach. To be more precise, if we compare unemployment, income, service provision and municipal budgets where the ANC has a majority of the council seats to all municipalities where the ANC has a minority of the seats, it is very likely that we find unemployment, incomes, and degrees of access to piped water and in-house electricity that reflect what may be specific to ANC voters. Such an analysis would most likely not say much about the performance of the ANC, but rather that their voters

⁴Unlike during the apartheid system when government officials decided which individual belonged to which racial group, today’s South Africans define themselves as either black, Indian, Coloured or white.

⁵As Mattes notes [33], it should be emphasized that two million more people now have access to electricity and seven million more to water since 1994.

⁶The national poverty line is \$43 per month in current prices (July 2013)

encompass some common characteristics. Instead, this paper utilizes two different methods to estimate the causal effect of ANC power. First, it follows several recent works (these include Ferreira & Gyorko [15], Lee et al. [29], Pettersson-Lidbom [42], Meyersson [38]) in that it uses the regression discontinuity design to identify the specific party effect on economic and social outcomes. By utilizing the fact that the ANC’s control changes discontinuously at 50 per cent of the power in the council, I am able to compare the treated municipalities (i.e. those that are governed by a slight ANC majority) to municipalities that can be considered controls (i.e. those that are just barely *not* governed by an ANC majority). One underlying assumption is that the ANC could be seen as forming one block in South African politics, while ”the rest” forms the other. I thus treat the electoral system as bipartisan, so when the treatment indicator, D_i , equals one we know that the ANC has a majority.

Assuming that the political landscape is bipartisan is highly problematic however since there are examples of municipalities where the ANC receives less than 50 per cent of the vote share, but still constitute the majority in the council. It could also be that the ANC attains, say, 46 per cent of the council seats, but create a coalition with a party that gives the parties more than 50 per cent of the seats. Such a municipality would (wrongly) be treated as a control in this estimation. Nevertheless, ANC’s former coalition partners the South African Communist Party and the Congress of South African Trade Unions have been internalized via the Tripartite Alliance, a fact that makes other coalition much less likely although not nonexistent. Accepting the assumption of a bipartisan electoral system, we have:

$$D_i = \begin{cases} 1 & \text{if } x_i \geq x_0 \\ 0 & \text{if } x_i < x_0. \end{cases}$$

where x_i is the ANC’s power in municipality i and x_0 is 50 per cent, i.e. our known threshold for ANC to have the majority of power in the municipality council. This is the sharp RD design (Hahn & Van der Klaauw [20], Imbens & Lemieux [23]) that exploits a rule-based discontinuity in the forcing variable to measure the causal effect of treatment. In this setting, the forcing variable is the ANC vote share or seat share and the cut-off value of 50 per cent solely determines the treatment assignment. If $x_i < x_0$, the ANC does not have the majority of power in the municipal council. In such a case, those municipalities work as a control group. Looking at the figure of the relationship between ANC’s vote share and seat share, it is clear that it is not one-to-one. Thus, it is not obvious which one should be used as the running variable. On one hand, using the seat share takes the institutional setting into account since a majority of seats at least in theory reflects a majority of power and vice versa. On the other hand, using the vote share respects the RDD assumption that we compare municipalities that, other than treatment, are similar to each other (e.g. voters have similar preferences). To control for this discrepancy, I show results using both the seat share and the vote share. The RDD specification used in this

paper can be described as follows:

$$Y_i = \alpha + \rho D_i + f(x_i) + u_i \quad (1)$$

$$\forall x_i \in (x_0 - \Delta, x_0 + \Delta)$$

where Y_i is the outcome, D_i is the treatment indicator, x_i is the forcing variable, and Δ is the bandwidth around x_0 . The smooth function $f(x_i)$ usually takes on an n -order polynomial in the forcing variable on each side of x_0 and within Δ . I follow recent work and use a nonparametric approach in the local linear regression (Hahn et al. [20], Porter [43], Imbens & Lemieux [23]) and set an optimal bandwidth such as specified by Imbens & Kalyanaraman. [24] To test the robustness of the estimates, I include estimations with a quadratic specification, utilizing all the data.

As already stated, the above RD approach hinges on the assumption that the winning threshold is 50 per cent. However, in a proportional election system with more than two parties such as South Africa's, there are no fixed thresholds. In essence, this fact means that the ANC's seat share not only depends on its vote share, but also on the vote shares of all other parties in the council. A solution to this identification problem has been proposed by Freier & Odendahl [17], which I use in this paper.⁷ To estimate the causal effect of political power on policy outcomes, they use the fact that voting power in a council changes when parties barely lose or gain seats. To isolate close elections, the vector of votes for each party is repeatedly perturbed by adding a random variable. Using the specific seat-allocation function (South Africa's is described in Section 2.1), it is then possible to simulate new seat allocations. Municipal elections for which seat allocations change often following the simulations are considered close. These close seats - i.e. seats that a party were close to losing or winning, but did not - are subsequently instrumented for.

In practice, for each observation i with vote vector \mathbf{v}_i and the known seat allocation, Freier & Odendahl [17] add a vector \mathbf{r}_i of independently normally distributed random variables to the vote vector. \mathbf{r}_i has expectation zero and variance $(kv_i^j)^2$. k per cent of the votes of party j is thus the standard deviation of the random variables, \mathbf{r}_i . The seats for party j in municipality i are then considered close if the allocation changes more than q per cent of the time following repeated perturbations.⁸ Since approximately $\frac{1}{3}$ of the probability mass lies outside the mean

⁷See their paper for a thorough explanation. In their main specification, they estimate how changes in voting power of parties affect policies. The concept of voting power builds on how many times party i are critical in a coalition, i.e. if a coalition including party i is a winning one. Since the ANC will be critical in most coalitions, I instead use their estimation specification for seat shares, described in their appendix. That specification is similar in idea to what Folke (2012) has developed.

⁸In this paper, the vote vector is perturbed a 1000 times using three different values of k .

plus/minus one standard deviation for a normally distributed random variable, one more observed seat for party j in municipality i in $\frac{1}{6}$ th of the perturbations should mean that around one standard deviation in vote change was needed for this change in seat allocation. Thus, we set $q = \frac{1}{6}$. Now we can define a closeness dummy that will ensure that the instrument (defined below) only is such for the municipalities where party j was close to lose or gain a seat:

$$c_i^j = \begin{cases} 1 & \text{if seat allocation was close to change} \\ 0 & \text{otherwise.} \end{cases}$$

Due to the identification issues mentioned under the discussion about the RDD, we need to define a treatment variable that can be used as instrument for seat shares. Following Freier & Odendahl, this treatment variable t_i^j takes on the value $+\frac{1}{2}/Z_i$ in a council of size Z_i if we find that a party was close to *losing* a seat following repeated perturbations of the vote vector (the authors call it positive treatment), and $-\frac{1}{2}/Z_i$ in the opposite case (negative treatment). The treatment variable can thus be summarized as follows:

$$t_i^j = \begin{cases} +\frac{1}{2}/Z_i & \text{for positive treatment} \\ -\frac{1}{2}/Z_i & \text{for negative treatment} \\ 0 & \text{otherwise.} \end{cases}$$

These values ensure that the difference between positive and negative treatment is measured in terms of seat shares. The IV specification used in this paper can then be described in the following way:

$$Y_i = \alpha + \sum_j \beta_j s_i^j + f(\mathbf{v}_i) + \mathbf{X}_i \gamma + c_i^j + \mu_i + e_i \quad (2)$$

where $f(\mathbf{v}_i)$ is a flexible function taking on a second-degree polynomial of each party's vote share, c_i^j is the closeness dummy described above, and μ_i is a municipality fixed effect. \mathbf{X}_i captures the size of each council, a year indicator and an indicator if the party received zero votes. The seat shares of each party, s_i^j , are instrumented for with the treatment variable t_i^j .

In these estimations, I leave out the ANC since the seat shares add up to one. Doing so for the ANC is not problematic since it is the biggest party and participates in almost all of the local elections. We thus interpret the coefficient of interest, β , as the effect on policy outcomes

of an increase in party j 's seat share by one per cent at the expense of the ANC.

It is important to note that the results from the IV estimations are not directly comparable to the results from the RD estimations, since the RDD measures the effect of an ANC majority on policy outcomes. However, if we for example find that an increase in Democratic Alliance's seat share at the expense of the ANC leads to more resources being spent on repairs, we might expect that an ANC majority would lead to less being spent on repairs. In other words, for parties that are true contenders to the ANC, such as the DA in Western Cape and the IFP in KwaZulu-Natal, it might be reasonable to expect opposite signs between the IV estimates and the RD estimates.

3.2 Data Description

I utilize the 2000 and 2006 municipal election results provided by the Independent Electoral Commission of South Africa. [25] The main issue contested revolved around service delivery, in particular to townships, and widespread protests due to the failure of providing water and electricity preceded both elections. [30]

This paper first presents results on the effect of ANC power on municipal budgets and subsequently analyze if these affect service-delivery outcomes and major economic outcomes, using the same methods. Starting with the first estimations, I test the effect of ANC power on outcomes from the municipal budgets set by the councils. The data comes from the National Treasury. [40] I start out by looking at the revenue composition in the form of revenues coming from property rates, service charges and government grants. Apparent from the summary statistics in *Table 1*, the greatest revenue source is government grants, i.e. state-level grants from the ANC government.⁹ Service charges stem from payments of services such as water and electricity, and property rates are revenues from what is essentially a progressive tax on property values. [40] From municipal expenditure I analyze the effect of ANC power on employee costs, councillor remuneration, repairs and maintenance, and water and electricity expenditure. Looking at *Table 1*, more is spent on water than electricity, while employee costs make up the greatest part of municipal expenditure. Due to better availability compared to the data mentioned below, I can utilize both the 2000 and the 2006 local elections and analyze their effects on outcomes four years later (2004/2005 and 2010/2011).¹⁰

In the second set of estimations, the dependent variables of interest are poverty, unemployment, and service delivery in the form of electricity and water provision. I have chosen to analyze this set of outcome variables since they capture some of the most debated legacies of the apartheid regime. Water and electricity provision are the outcomes among the aforementioned

⁹These grants could take many forms. For example, they can be either conditional (Municipal infrastructure grant, National Electrification Programme, disaster relief, 2010 FIFA World Cup stadiums development grant et cetera) or unconditional. Due to the scope of this paper, I simply analyze the effect of ANC power on the bulk of grants, although some of these grants should not be affected by party politics. This however accrues to all municipalities across South Africa.

¹⁰Other possible budgetary variables include: regional service levies, investment revenue, public contributions and donations, depreciation and amortisation, finance charges, materials and bulk purchases, grants and subsidies, external loans, housing costs, and roads and storm water expenditure.

that, ex ante, are most likely to be directly affected by the municipal council. In a second stage, I analyze the effect of ANC power on black Africans' living standards separately since the ANC has had the equalization of living standards between black Africans and whites as one of their main goals since the liberation. [35]

After 2000 (the first possible election to utilize) there exist three data sets on the South African population, collected by Statistics South Africa [47]: a population census conducted in 2001, a community survey conducted in 2007 that took the place of the 2006 population census, and another population census conducted in 2011. The timing of the elections and the population data give me three possible estimation strategies, shown in *Figure (c)*. First, I could use variations in the 2000 election results matched to the 2001 census results and the 2006 election results matched to the 2007 survey results. Essentially, this would be an estimation of the short-term effect of ANC power. Second, it would be possible to aggregate the 2000 election results on the 2007 survey and the 2006 election results on the 2011 survey. This would however be problematic since the 2007 survey overlaps the 2006 election. Lastly, I could simply estimate the effect of variation in the 2006 election on outcomes from the 2011 population census. Although this strategy limits the sample size, it is more likely that a presumed effect of ANC power has developed on this longer time period compared to the first strategy, and is thus used here.

All data are on a municipality level and is divided into categories (e.g. "Piped Water Inside Dwelling", "Piped Water Inside Yard" and so on). I thus create the outcome variables by dividing the number of individuals within the particular categorie by all individuals in the municipality (the workforce in the case of unemployment), so that I get the share with piped water inside their house in municipality i . Likewise, when analyzing the effect on black Africans' living standards, the outcome variable would for example be the share of black Africans among all black Africans with water inside their dwelling. I have chosen how to construct variables according to "worst" or "best". That is, what is "best" is to have electricity for the purpose of cooking or heating, and water inside ones dwelling. What is "worst" is to be unemployed or be under a poverty line.¹¹

4 Results

4.1 Municipal Budgets

The main tool that the municipal council has at its disposal is the yearly municipal budget. In it they stipulate their revenues and expenditure. To get the broad picture of the workings of the

¹¹Apart from those mentioned above, the variables provided by Statistics South Africa include phone service, household size, household goods (only for 2001), refuse or rubbish disposal, toilet facilities, disability, occupation, educational level, mode of travel to school or work, cellphone use, computer and internet use, post facilities, and social grants (only for 2007). Among these, I would have wanted to include household goods and social grants into the analysis, but they are only collected for one year. Educational level would also have been interesting to analyze, but schools are foremost the responsibility of the provincial governments [27], not the municipalities.

councils, I include several outcomes in the analysis.¹² Tables 3 to 10 display the results from the IV and RD estimations of the effect of ANC power on municipal-budget outcomes, each table giving the results for each separate outcome variable. The tables are divided in two parts, one for the IV results and one for the RD results. The first three columns in the IV part show the results using three different values of the parameter k in the perturbations. Moving from $k = 1\%$ to $k = 2\%$ or $k = 5\%$ expand the sample that is used for the estimations. The lower we set k , the higher is the requirement for closeness. Thus, for causality claims, $k = 1\%$ is more reliable than, say, $k = 5\%$. However, with a sample size as small as in this paper, we might expect that we need a less demanding size of k - such as $k = 2\%$ or $k = 5\%$ - for significance. In the RDD part I display results using seat share and vote share as running variables. The regressions are run with a specification using an optimal bandwidth and a quadratic polynomial specification.

Following recent work on RDD, I start out with a graphical analysis. *Figure 1* illustrates local averages for the budgetary outcomes plotted against the ANC seat share in bins of four per cent. The thin gray lines are standard confidence intervals. Interesting in itself, and common to all estimations throughout, it seems as if closer elections lead to better outcomes. This would be logical if we believe that more cooperation within the council is good for the political process. Looking at *Figure 1*, we cannot determine any clear jumps at the cut-off point for property rates as a share of revenues, employee costs and spending on electricity delivery, and only weak evidence of discontinuities for service charges as a share of revenues, councillor remuneration, and repairs and maintenance. There is a more obvious positive jump for inter-governmental grants and a negative jump for expenditure on water provision. Although these graphs give quite weak evidence of an effect of ANC power,¹³ a general pattern can be disentangled looking at observations close to the cut-off point: ANC power seems to lead to less revenues stemming from service charges, more revenues stemming from grants, a higher expenditure on councillors, and lower expenditure on repairs and water provision.

Since the redistribution of wealth is one of the ANC government's main goals, I use the amount received from property rates as a proxy for this.¹⁴ The property rate is an essential instrument for redistribution and is independently set by the municipal council. If we believe that the ANC cares more about the issue of racial inequality, we should expect a positive effect of the party's power on property rates as a share of revenue. As was evident from the graph, we find no significant effects of ANC power on property rates in the RD estimations looking at Table 3. The coefficients are negative, but the standard errors are quite large. However, looking at the IV estimates, we find at least some evidence of less revenues from property rates when the DA increases their seat share at the expense of the ANC. This finding is in line with the above hypothesis that the ANC might care more about redistribution. Of course, it could also have something to do with higher rates per se. For revenues stemming from service charges, we find no reliable significant results from the IV estimations, while the RD results give that less revenues

¹²The outcome variables are property rates, service charges, government grants, employee costs, councillor remuneration, repairs, and water and electricity expenditure.

¹³If I instead use the vote share as running variable, the jumps are much more obvious.

¹⁴I would rather have want to use the actual rate, but have not been able to collect that for each municipality.

come from service charges as a consequence of ANC power. This finding was indicated by the RD graph and may be explained by less services delivered by ANC-run municipal councils, further analyzed below. For the last revenue source - inter-governmental grants - the results are more puzzling since the IV estimates and the RD estimates go in the same, positive direction. What *Table 5* says is that an ANC majority relies much more heavily on grants from the government, amounting to around 20 percentage points more compared to municipal councils in the control group. At the same time, the IV estimations give that as the Democratic Alliance and *Others* increase their respective seat shares at the expense of the ANC, more revenues come from grants in those municipalities where that happens. Since the DA, for example, often constitute a large part of the control group in the RD estimations, it would be reasonable to expect opposite signs here, at least for that party. These conflicting results might be explained by the potential bias in the RD set up for this particular setting, as was discussed in Section 3.1. A more likely explanation, however, is that the RD results are highly local, further discussed under Section 4.3.

Moving on to analyze municipal expenditure, we can first note from *Table 6* that no significant effects of ANC power on employee expenditure can be found in the RDD part of the table, as was evident from the graph. The IV analysis nonetheless quite clearly shows that less seem to be spent on municipal employees as DA and IFP gain seat shares at the expense of the ANC. Likewise, as Inkatha Freedom Party gains seat shares at the expense of the ANC, less is being spent on the councillors themselves. This finding is also somewhat supported by the RD analysis, although we only have significant results with the vote share as running variable. The estimations with seat share as running variable point in the same direction, but the results are less precise.¹⁵

One less obvious variable to analyze is how much out of total expenditure is spent on repairs and maintenance. Since service provision not only needs investments in new water pipes and electricity lines et cetera, but also maintenance of what is already existing, this variable is important to investigate. The RDD part of *Table 8* display a negative effect of ANC power on the expenditure on repairs. This effect was also indicated by the graph in *Figure 1*. Looking at the IV results, we only find suggestive evidence of a positive effect on repairs expenditure when the DA gains seat shares at the expense of the ANC. As for actual spending on water delivery, the RD estimates are large and negative. Accordingly, we find that as *Others* increase their seat share at the expense of the ANC, more is being spent on water provision, at least when $k = 2\%$. As was clearly stated by the RD graph, we find no conclusive evidence of an effect of ANC power on electricity delivery.

¹⁵The discrepancy in significance levels between the seat share and the vote share as running variables is further discussed in Section 4.3. Some municipalities have differing treatment status depending on which running variable is used. If these municipalities are dropped from the analysis, the estimates and their significance levels become much more comparable.

4.2 Economic and Social Outcomes

Having the above discussion in mind when we analyze actual water- and electricity provision, unemployment and poverty, it seems reasonable to expect negative effects of ANC power at least on service provision, and thus positive effects for some of the other parties. Looking at *Figure 2*, we indeed find negative - although weak - jumps in the shares with electricity and piped water inside their dwellings, and a weak positive jump in poverty. In general, these effects cannot be discerned for black Africans.

Starting with an analysis of service provision, it seems as if ANC power leads to lower electricity delivery, albeit the results are suggestive since we only have significant results using vote share as running variable. The results using the seat share do however point in the same direction. No significant effects of ANC power on the share of black Africans with electricity is found, although the point estimates have negative signs. With some doubts cast by the weakly significant negative result when $k = 1\%$, we do find that as the IFP gains seat shares at the expense of the ANC, the share with electricity in their dwelling increases. Trusting the results in the column where $k = 5\%$, it seems clear that this effect goes through an increased share of black Africans with electricity as a consequence of increased IFP power. Since we could not conclude that less is being spent on electricity provision when ANC power increases in the above analysis, these results may instead be explained by less repairs and maintenance. A similar pattern can be disentangled looking at the share with piped water inside their dwelling. The RD analysis yields large, negative estimates that might be explained by Inkatha Freedom Party increasing the share with piped water as they gain seat shares at the expense of the African National Congress. Again, the positive β_{IFP} seems to go through an increase in the share of black Africans with piped water, while the RD results only give weak suggestive evidence of a negative effect of ANC power on black Africans' access to piped water. The results on water delivery are in line with what we found on the effect of the ANC on expenditure on water provision.

Discussing the estimations of ANC power on unemployment and poverty, we can note that the results are quite inconclusive compared to the aforementioned. As was obvious from the RD graph, it does not seem as if we have any evidence of an effect of ANC power on unemployment. Furthermore, half of the IV regressions fail the placebo test (discussed below). Looking at poverty, we find suggestive evidence of an adverse effect of ANC power. Here, only the regressions using the vote share as running variable yield significant results, although those using the seat share again point in the same positive direction. Also, we only find one corresponding result in the IV part of the table when $k = 5\%$: as *Others* gain seat shares at the expense of the ANC, the share who are poor seems to drop.

4.3 Robustness Checks and Placebo Tests

A major issue when performing an RD analysis is the possibility to manipulate the forcing variable around the cut off so that observations on each side may not be comparable. As noted by Angrist and Pischke [2], this also accrues to election studies in democratic countries, having

the 2000 U.S. presidential election and the recount in Florida in mind. The worry is, for example, that the ANC has the power to change D_i and thus create bunching just to the right of the cut-off value of 50 per cent. To examine this possibility, *Figure (a)* shows the density of the ANC vote share around the discontinuity. Indeed, the party’s density is highest somewhere between 75 to 80 per cent of the vote share, but there does not seem to be a bunching just to the right of the 50 per cent threshold. This is reassuring and maybe not surprising considering the thus far commended electoral process.¹⁶

As was stated under Section 3.1, I use both the ANC seat share and vote share as running variables. From *Figure (b)*, it is clear that we do not have a one-to-one relationship between the two. However, under the notion that both variables capture important features of the institutional setting and the RD approach, we want similar results from both specifications. Looking at the tables, all point estimates have the same sign, but those using the vote share as running variable are always larger. At the same time, the standard errors are very similar, at least for the budgetary outcomes. That explains why we find more significant results using the vote share. It is likely that the disparity between the two specifications when it comes to the size of the point estimates is due to small-sample issues, outliers in either specification, or a combination of both. The fact that we do not have a perfect mapping between vote shares and seat shares is also an argument for why it may be problematic to use an RD approach to a proportional election system. Nevertheless, it is reassuring that the directions of the coefficients correspond to each other.

Another issue apparent from the tables is that as we move from $k = 1\%$ to $k = 5\%$ in the IV regressions, it is not always the case that the estimates retain their signs. This is also true for Freier & Odendahl’s [17] paper when they vary the definition of closeness, although to a lesser extent. Again, in this paper, this issue most likely has to do with the rather small sample size. That is, as we expand the sample that is used for the estimations, the ”new” municipalities have enough weight to change the estimates to a higher extent than would the sample size have been larger. It is then a question which definition of closeness is the most reasonable. On one hand, as stated in Section 4, $k = 1\%$ is the most reliable value for causality claims. On the other hand, with a small sample size, it might be reasonable to expand the sample at the cost of the aforementioned.¹⁷ As noted by Freier & Odendahl [17], these sometimes noisy estimates could also stem from the worry that a party’s seat share is an imprecise representation of voting power. However, there is only one case where we have significant, conflicting results in this paper so it should not be a major worry.

The last columns in the IV and RDD sections respectively, in each table, display the results from a placebo test of the effects of ANC power measured from the election result from 2006,

¹⁶I have also performed similar election forensics on a ward level as those found in Beber & Scacco [4]. In particular, if we keep only the last digit in the vote count for the ANC and plot the distribution from 0 to 9, the distribution should be uniform since these numbers should appear with equal frequency as if they were randomly drawn. This seems to be the case in South Africa.

¹⁷This discussion is quite similar to the discussion on bandwidth choice in the RD setting, although the two should not be mixed up.

on outcomes from 2001 and 2004/2005. These pre-election outcomes should be unrelated to variation from the 2006 election. A placebo test such as this is a version of testing whether covariates are balanced by treatment status as in a randomized experiment. The first placebo column runs an IV regression with $k = 1\%$ and the last column uses an RDD with a local linear regression with full bandwidth on the seat share. Apart from the estimation of the effect of ANC power on unemployment, this placebo test seems to confirm that those effects found are actually due to party policy.

Lastly, when analyzing particular municipalities ("close" ones) as with the two approaches in this paper, it is important to note that what we estimate is local average treatment effects (LATE). In the presence of heterogenous effects, the LATE estimates might differ from the average treatment effects. This fact could be problematic if close elections only take place in certain provinces or if politicians in municipalities with a high competition act in a certain way. Indeed, the two maps illustrating close-election municipalities for the RD and the IV design confirm that we should be worried about these issues, looking at the distribution of close municipalities. Starting with *Figure (d)*, it is clear that closeness as defined in the RDD stands out as most problematic; it more or less completely follows the strength of the Democratic Alliance and the Inkatha Freedom Party. In other words, in the Western and Northern Cape where the DA are strong we have many close elections. Here, the DA has a majority in several municipalities and the ANC a plurality in some. Likewise, in KwaZulu-Natal where the IFP has most of their support, we have many close elections. In effect, the RD LATE will come from comparisons of municipalities where the ANC just gained a majority to municipalities where the DA or the IFP just gained a majority. These are certainly highly specific municipalities. The results from the RD estimations should thus be treated with caution and analyzed for what they are. For example, the conflicting estimates on the effect of ANC power on inter-governmental grants could perhaps be explained by LATE: since we in essence compare the ANC to the DA or the IFP, we have to take into account that a municipality with a DA/IFP majority - in particular - may make the ANC government reluctant to distribute grants. That does not however explain the positive estimates from the IV regressions, that instead might stem from better project plans or the like.

Looking at close-election municipalities as defined with the IV approach, they do not follow the same pattern as above. Rather, the highest density of close municipalities seems to be in areas where the ANC are highly dominant, such as the provinces Limpopo, North West and Eastern Cape. Since the identification of treatment status obviously differs to a large extent, it is reassuring that we in most of the cases receive comparable results (i.e. estimates that have opposite signs between the IV and the RD specifications).

5 Concluding Remarks

This paper set out to evaluate the African National Congress' effect on several economic and social indicators. Taken together, the results point to an adverse effect of the party: less is spent

on repairs and water provision which in turn may explain why ANC power seems to lower the share of individuals who have access to piped water and electricity. It is likely that this finding is the underlying reason why ANC power leads to less revenues stemming from service charges. Further, more resources are used on municipal employees and the councillors themselves, while I find suggestive evidence that the poverty rate increases due to the party. Lastly, although being their major political support, we cannot conclude that the ANC affects black African's living standards. Instead, the analysis in this paper indicates that oppositional parties many times have a more positive impact on outcomes as they gain power at the expense of the ANC. These findings are especially worrying in the South African context where there up until today have been few signs of the party's power being challenged.

Despite the above, as stated in the introduction, it is important to note that this exercise does not elaborate on variables that are harder to measure. That is, I cannot say anything about living standards in the sense of living free from oppression. Being the movement that brought this freedom to black Africans, it might be understandable that the party receives vote shares as big as those we have seen up until now. It is also possible that the transition from being a freedom movement to act as a political party is very special and takes time. Indeed, few African countries have managed this transition better than South Africa.

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Table 1: SUMMARY STATISTICS ON BUDGET OUTCOMES

	Mean	S.D.
REVENUES		
Property Rates	0.114	0.086
Service Charges	0.319	0.225
Government Grants	0.429	0.286
EXPENDITURE		
Employee Costs	0.338	0.104
Councillor Remuneration	0.037	0.039
Repairs	0.048	0.034
Water Expenditure	0.180	0.249
Electricity Expenditure	0.078	0.125

The variables are shares of operating revenue, operating expenditure and capital expenditure.

Table 2: SUMMARY STATISTICS ON SERVICES AND ECONOMIC OUTCOMES

	All	Black	White
SERVICE PROVISION			
Electricity			
<i>Mean</i>	0.650	0.632	0.818
<i>S.D.</i>	0.162	0.158	0.121
Piped Water			
<i>Mean</i>	0.362	0.293	0.853
<i>S.D.</i>	0.231	0.188	0.194
MAJOR ECONOMIC OUTCOMES			
Unemployment			
<i>Mean</i>	0.344	0.385	0.096
<i>S.D.</i>	0.169	0.207	0.108
Poverty			
<i>Mean</i>	0.631	0.654	0.383
<i>S.D.</i>	0.130	0.143	0.120
DEMOGRAPHY			
Share Under 19 Years			
<i>Mean</i>	0.419	0.416	0.244
<i>S.D.</i>	0.071	0.083	0.061
Share Over 65 Years			
<i>Mean</i>	0.060	0.050	0.149
<i>S.D.</i>	0.017	0.021	0.061

The variable *Electricity* is a combination of the shares who are using electricity for cooking, heating and lighting. Poor are those individuals who earn less than 400 Rand per month.

Table 3: EFFECTS OF ANC POWER ON REVENUES FROM PROPERTY RATES

	RDD									
	IV					RDD				
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Placebo	Optimal BW	Quadratic	Optimal BW	Quadratic	Placebo	Placebo
DA	-0.003 (0.012)	-0.016*** (0.006)	-0.005* (0.003)	-0.010 (0.014)						
IFP	0.002 (0.013)	0.008 (0.010)	-0.005 (0.005)	-0.036 (0.034)						
Others	-0.002 (0.005)	-0.006 (0.004)	-0.002 (0.002)	0.001 (0.007)						
ANC Majority					-0.013 (0.024)	-0.016 (0.036)	-0.023 (0.021)	-0.031 (0.031)	0.032 (0.033)	
Bandwidth	1	1	1	1	0.35	1	0.37	1	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	1	1
Municipal FE	Yes	Yes	Yes	No	No	No	No	No	No	No
N	468	468	468	233	399	470	429	474	233	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal-council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaram (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 4: EFFECTS OF ANC POWER ON REVENUES FROM SERVICE CHARGES

	IV						RDD					
	$k = 1\%$		$k = 2\%$		$k = 5\%$		Seatshare		Voteshare			
	Placebo	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Placebo	
DA	-0.007 (0.033)	0.007 (0.015)	0.013 (0.009)	0.007 (0.036)	0.007 (0.036)	0.007 (0.036)						
IFP	-0.012 (0.036)	-0.026 (0.024)	0.008 (0.014)	0.093 (0.085)	0.093 (0.085)	0.093 (0.085)						
Others	-0.020 (0.013)	-0.013 (0.010)	-0.013** (0.007)	0.030* (0.018)	0.030* (0.018)	0.030* (0.018)						
ANC Majority							-0.086 (0.054)	-0.144** (0.065)	-0.108* (0.059)	-0.185*** (0.061)	0.033 (0.075)	
Bandwidth	1	1	1	1	1	1	0.26	1	0.23	1	1	1
Polynomial Degree	2	2	2	2	2	2	1	2	1	2	2	1
Municipal FE	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
N	468	468	468	233	233	233	276	470	236	474	233	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 5: EFFECTS OF ANC POWER ON REVENUES FROM GOVERNMENTAL GRANTS

	IV				RDD				
	$k = 1\%$		$k = 2\%$		Seatshare		Voteshare		
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Placebo	Optimal BW	Quadratic	Optimal BW	Quadratic	Placebo
DA	0.148 (0.097)	0.056*** (0.021)	0.018* (0.010)	0.046 (0.035)					
IFP	-0.119 (0.104)	-0.013 (0.034)	-0.000 (0.016)	-0.031 (0.082)					
Others	0.068* (0.038)	0.031** (0.013)	0.009 (0.007)	-0.005 (0.018)					
ANC Majority					0.143* (0.074)	0.226*** (0.084)	0.178** (0.077)	0.278*** (0.080)	0.002 (0.090)
Bandwidth	1	1	1	1	0.25	1	0.22	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	1
Municipal FE	Yes	Yes	Yes	No	No	No	No	No	No
N	468	468	468	233	251	470	231	474	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 6: EFFECTS OF ANC POWER ON EXPENDITURE ON EMPLOYEES

	RDD																			
	IV					Seatshare					Voteshare									
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Placebo	Optimal BW	Quadratic	Optimal BW	Quadratic	Optimal BW	Quadratic	Placebo									
DA	-0.059 (0.051)	-0.030** (0.012)	-0.013** (0.006)	-0.006 (0.020)																
IFP	0.089 (0.055)	-0.038* (0.020)	-0.026*** (0.010)	-0.052 (0.047)																
Others	-0.032 (0.020)	-0.015* (0.008)	-0.005 (0.005)	0.016 (0.010)																
ANC Majority					0.016 (0.024)	-0.004 (0.031)	0.011 (0.023)	-0.013 (0.032)	0.089** (0.038)											
Bandwidth	1	1	1	1	0.32	1	0.33	1	1	1	1	1	1	1	1	1	1	1	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Municipal FE	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
N	468	468	468	233	363	470	386	474	386	474	233	386	474	233	386	474	233	386	474	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal-council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 7: EFFECTS OF ANC POWER ON EXPENDITURE ON COUNCILLORS

	IV						RDD					
	$k = 1\%$		$k = 2\%$		$k = 5\%$		Seatshare		Voteshare		Placebo	
	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Placebo		
DA	-0.001 (0.008)	0.005 (0.004)	-0.002 (0.002)	-0.005 (0.005)	-0.002 (0.002)	-0.005 (0.005)						
IFP	-0.015* (0.009)	-0.021*** (0.007)	-0.011*** (0.003)	-0.007 (0.011)	-0.011*** (0.003)	-0.007 (0.011)						
Others	-0.002 (0.003)	0.000 (0.003)	-0.001 (0.001)	-0.002 (0.002)	-0.001 (0.001)	-0.002 (0.002)						
ANC Majority							0.003 (0.010)	0.019 (0.012)	0.020* (0.010)	0.037*** (0.011)	-0.006 (0.012)	
Bandwidth	1	1	1	1	1	1	0.23	1	0.25	1	1	1
Polynomial Degree	2	2	2	2	2	2	1	2	1	2	1	1
Municipal FE	Yes	Yes	Yes	No	Yes	No	No	No	No	No	No	No
N	468	468	468	233	468	233	237	470	263	474	233	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal-council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 8: EFFECTS OF ANC POWER ON EXPENDITURE ON REPAIRS

	IV			RDD		
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Seatshare	Votesshare	
	Placebo	Optimal BW	Quadratic	Optimal BW	Quadratic	Placebo
DA	-0.001 (0.008)	0.003 (0.004)	0.004* (0.002)			
IFP	-0.001 (0.009)	-0.011 (0.007)	0.005 (0.003)			
Others	-0.005 (0.003)	-0.001 (0.003)	-0.000 (0.002)			
ANC Majority				-0.016** (0.008)	-0.016** (0.008)	-0.023 (0.017)
Bandwidth	1	1	1	0.30	1	1
Polynomial Degree	2	2	2	1	1	1
Municipal FE	Yes	Yes	Yes	No	No	No
N	468	468	468	337	470	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 9: EFFECTS OF ANC POWER ON EXPENDITURE ON WATER DELIVERY

	IV						RDD						
	$k = 1\%$		$k = 2\%$		$k = 5\%$		Seatshare		Voteshare		Placebo		
	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Optimal	BW	Quadratic	Placebo
DA	0.117 (0.101)	0.005 (0.027)	-0.013 (0.014)	-0.039 (0.040)									
IFP	-0.144 (0.109)	0.017 (0.044)	-0.018 (0.023)	-0.028 (0.094)									
Others	0.063 (0.040)	0.042** (0.018)	0.017 (0.011)	-0.008 (0.020)									
ANC Majority					-0.161** (0.066)	-0.214*** (0.071)	-0.091 (0.069)	-0.156** (0.073)	0.029 (0.064)				
Bandwidth	1	1	1	1	0.24	1	0.24	1	1	1	1	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	2	2	2	2	2
Municipal FE	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No
N	468	468	468	233	249	470	252	474	474	233	233	233	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 10: EFFECTS OF ANC POWER ON EXPENDITURE ON ELECTRICITY DELIVERY

	IV				RDD				
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Placebo	Optimal BW	Quadratic	Optimal BW	Quadratic	Placebo
DA	0.021 (0.035)	-0.006 (0.013)	0.004 (0.008)	0.001 (0.014)					
IFP	-0.026 (0.038)	0.006 (0.022)	-0.003 (0.013)	-0.012 (0.034)					
Others	0.007 (0.014)	0.002 (0.009)	0.001 (0.006)	0.009 (0.007)					
ANC Majority					0.017 (0.035)	0.004 (0.035)	0.033 (0.032)	0.024 (0.041)	-0.023 (0.023)
Bandwidth	1	1	1	1	0.26	1	0.29	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	1
Municipal FE	Yes	Yes	Yes	No	No	No	No	No	No
N	468	468	468	233	267	470	333	474	233

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variables are shares of operating revenue, operating expenditure and capital expenditure. The budget data is the actual outcome of the 2004/2005 and the 2010/2011 budgets. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2004/2005. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2004/2005 outcome. We would not expect significant results in these two columns.

Table 11: EFFECTS OF ANC POWER ON THE SHARE WITH ELECTRICITY

	RDD												
	IV				Seatshare				Voteshare				
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Placebo	Optimal BW	Quadratic	Quadratic	Optimal BW	Quadratic	Quadratic	Placebo		
DA													
<i>All</i>	-0.004 (0.023)	0.006 (0.020)	-0.000 (0.007)	-0.007 (0.020)									
<i>Black</i>	-0.003 (0.023)	0.005 (0.020)	0.005 (0.008)	-0.000 (0.020)									
IFP													
<i>All</i>	-0.090* (0.054)	-0.034 (0.026)	0.039** (0.015)	-0.056 (0.046)									
<i>Black</i>	-0.089 (0.055)	-0.033 (0.026)	0.039** (0.016)	-0.054 (0.047)									
Others													
<i>All</i>	0.007 (0.011)	0.013 (0.010)	0.002 (0.007)	0.008 (0.010)									
<i>Black</i>	0.005 (0.012)	0.013 (0.010)	0.004 (0.007)	0.003 (0.010)									
ANC Majority													
<i>All</i>					-0.081 (0.077)	-0.145 (0.102)	-0.161** (0.074)	-0.163** (0.070)	-0.044 (0.071)				
<i>Black</i>					-0.011 (0.074)	-0.071 (0.094)	-0.082 (0.076)	-0.102 (0.070)	0.024 (0.056)				
Bandwidth	1	1	1	1	0.29/0.27	1	0.25/0.25	1	1	1	1	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	2	1	1	1	1
N	234	234	234	231	149/134	234	123/121	234	234	234	231	231	231

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal-council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The outcome variable *Electricity* is a combination of the shares who are using electricity for cooking, heating and lighting. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2001. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2001 outcome. We would not expect significant results in these two columns.

Table 12: EFFECTS OF ANC POWER ON THE SHARE WITH PIPED WATER

	IV						RDD						
	$k = 1\%$		$k = 2\%$		$k = 5\%$		Placebo		Seatshare		Voteshare		
	1	2	1	2	1	2	Optimal BW	Quadratic	Optimal BW	Quadratic	Placebo	Quadratic	
DA													
<i>All</i>	-0.025 (0.020)	0.012 (0.018)	0.008 (0.008)	0.008 (0.017)	-0.018 (0.017)								
<i>Black</i>	-0.025 (0.020)	0.007 (0.018)	0.013 (0.008)	-0.011 (0.015)									
IFP													
<i>All</i>	0.017 (0.047)	-0.026 (0.023)	0.040** (0.017)	0.007 (0.040)									
<i>Black</i>	0.023 (0.048)	-0.024 (0.023)	0.036** (0.017)	0.010 (0.036)									
Others													
<i>All</i>	0.009 (0.010)	0.012 (0.009)	0.005 (0.007)	0.005 (0.009)									
<i>Black</i>	0.003 (0.010)	0.004 (0.009)	0.012 (0.007)	0.002 (0.008)									
ANC Majority													
<i>All</i>							-0.157* (0.089)	-0.208 (0.126)	-0.263*** (0.094)	-0.234*** (0.088)	-0.052 (0.070)		
<i>Black</i>							-0.069 (0.077)	-0.120 (0.096)	-0.135* (0.077)	-0.123 (0.075)	0.010 (0.044)		
Bandwidth	1	1	1	1	1	1	0.30/0.28	1	0.26/0.26	1	1	1	1
Polynomial Degree	2	2	2	2	2	2	1	2	1	2	1	2	1
N	234	234	234	234	231	234	162/142	234	129/132	234	234	234	234

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal-council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2001. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2001 outcome. We would not expect significant results in these two columns.

Table 13: EFFECTS OF ANC POWER ON UNEMPLOYMENT

	IV						RDD						
	$k = 1\%$		$k = 2\%$		$k = 5\%$		Placebo		Seatshare		Voteshare		Placebo
	Optimal BW	Quadratic	Optimal BW	Quadratic	Optimal BW	Quadratic	Optimal BW	Quadratic	Optimal BW	Quadratic	Optimal BW	Quadratic	
DA													
<i>All</i>	-0.000 (0.027)	-0.009 (0.025)	-0.002 (0.011)	0.005 (0.024)									
<i>Black</i>	-0.005 (0.035)	-0.007 (0.034)	-0.012 (0.015)	0.006 (0.021)									
IFP													
<i>All</i>	0.066 (0.064)	-0.009 (0.033)	0.012 (0.023)	0.095* (0.057)									
<i>Black</i>	0.102 (0.084)	-0.017 (0.044)	0.017 (0.030)	0.056 (0.049)									
Others													
<i>All</i>	-0.018 (0.013)	-0.012 (0.013)	-0.012 (0.010)	-0.030** (0.013)									
<i>Black</i>	-0.020 (0.018)	-0.011 (0.017)	-0.020 (0.013)	-0.027** (0.011)									
ANC Majority													
<i>All</i>							0.040 (0.067)	0.042 (0.093)	0.117 (0.073)	0.104 (0.066)	0.046 (0.055)		
<i>Black</i>							-0.038 (0.083)	-0.029 (0.098)	0.059 (0.087)	0.066 (0.076)	-0.030 (0.051)		
Bandwidth	1	1	1	1	1	1	0.30/0.28	1	0.24/0.23	1	1	1	1
Polynomial Degree	2	2	2	2	2	2	1	2	1	2	1	2	1
N	234	234	234	229	229	229	161/139	234	119/112	234	230	234	230

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaram (2009). All data is utilized in the estimation of the quadratic specification. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2001. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2001 outcome. We would not expect significant results in these two columns.

Table 14: EFFECTS OF ANC POWER ON POVERTY

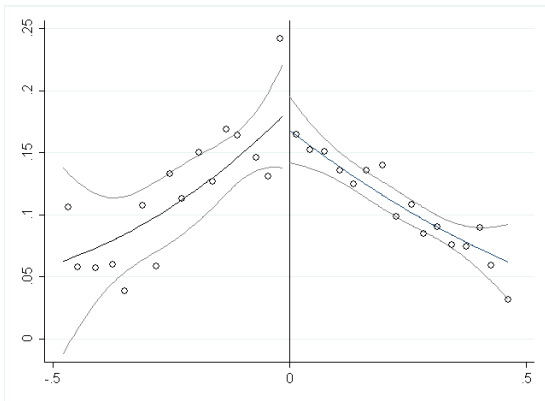
	RDD											
	IV				Seatshare				Voteshare			
	$k = 1\%$	$k = 2\%$	$k = 5\%$	Placebo	Optimal BW	Quadratic	Quadratic	Optimal BW	Quadratic	Quadratic	Placebo	Placebo
DA												
<i>All</i>	0.014 (0.016)	0.005 (0.015)	0.008 (0.007)	-0.021 (0.022)								
<i>Black</i>	0.013 (0.020)	0.006 (0.019)	0.008 (0.009)	-0.021 (0.024)								
IFP												
<i>All</i>	0.012 (0.037)	0.016 (0.020)	0.002 (0.014)	0.074 (0.053)								
<i>Black</i>	0.022 (0.047)	0.012 (0.025)	0.007 (0.018)	0.072 (0.057)								
Others												
<i>All</i>	-0.008 (0.008)	-0.004 (0.008)	-0.008 (0.006)	-0.008 (0.011)								
<i>Black</i>	-0.014 (0.010)	-0.007 (0.010)	-0.015** (0.008)	-0.006 (0.013)								
ANC Majority												
<i>All</i>					0.079 (0.062)	0.095 (0.066)	0.147*** (0.056)	0.136*** (0.043)	0.031 (0.036)			
<i>Black</i>					0.037 (0.064)	0.047 (0.069)	0.120* (0.066)	0.104* (0.056)	0.038 (0.041)			
Bandwidth	1	1	1	1	0.22/0.23	1	0.21/0.23	1	1	1	1	1
Polynomial Degree	2	2	2	2	1	2	1	2	1	1	1	1
N	234	234	234	229	102/108	234	102/107	234	234	229	229	229

Standard errors in parentheses.

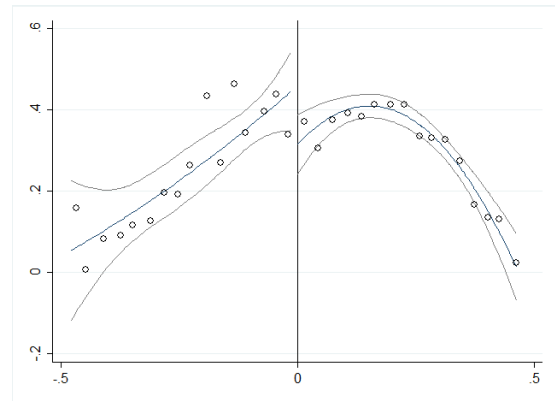
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The first three columns refer to the estimates of IV regressions where each party's seatshare is instrumented by seatshare shifts around a threshold in close elections, as described in Freier & Odendahl (2012). The instrument is based on 1000 perturbations of the vote vector of each party, using three different variances of the vote count. These regressions include a control for the municipal council size, dummies for each party if the party did not receive any votes, and a year dummy. The next two columns display the results of an RD estimation using the ANC's seatshare as running variable, while the last two columns use the voteshare as running variable. The bandwidths are optimal as specified by Imbens & Kalyanaraman (2009). All data is utilized in the estimation of the quadratic specification. Poor are those individuals who earn less than 400 Rand per month. The first placebo column runs an IV regression with $k=1\%$ with election results from 2006 on outcome from 2001. The second placebo column uses an RDD with a linear regression with full bandwidth on the seatshare, using 2006 election results on 2001 outcome. We would not expect significant results in these two columns.

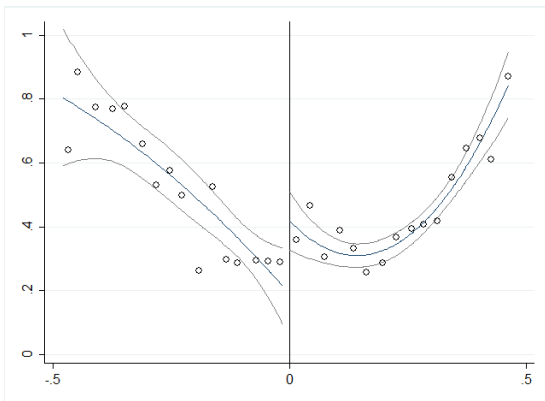
Figure 1: THE RD DESIGN: MUNICIPAL BUDGET



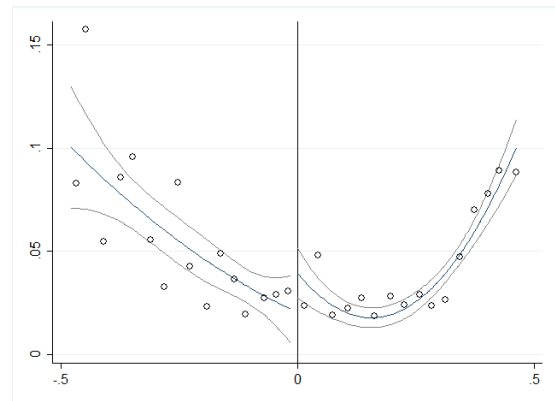
(a) PROPERTY RATES



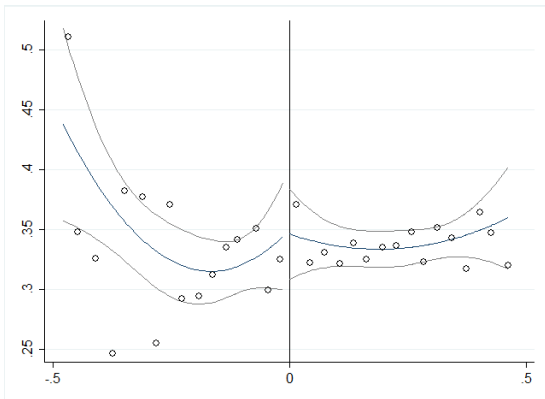
(b) SERVICE CHARGES



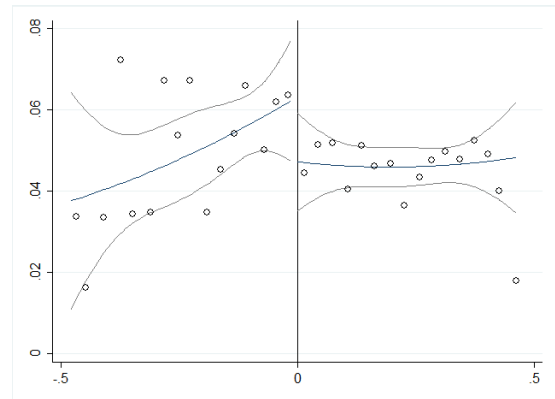
(c) GOVERNMENT GRANTS



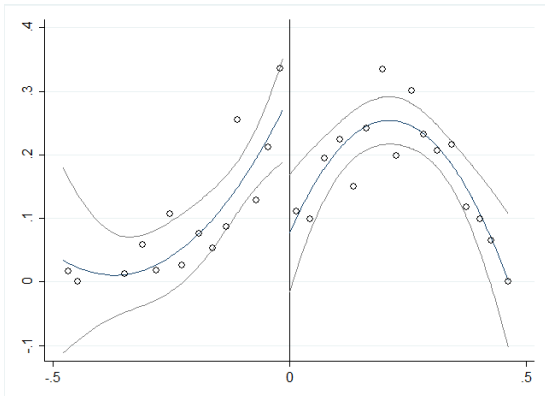
(d) COUNCILLOR REMUNERATION



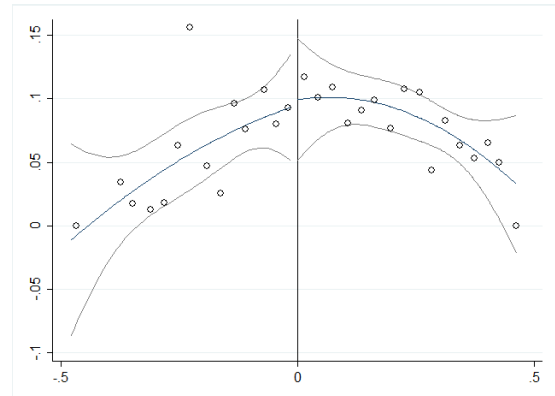
(e) EMPLOYEE COSTS



(f) REPAIRS

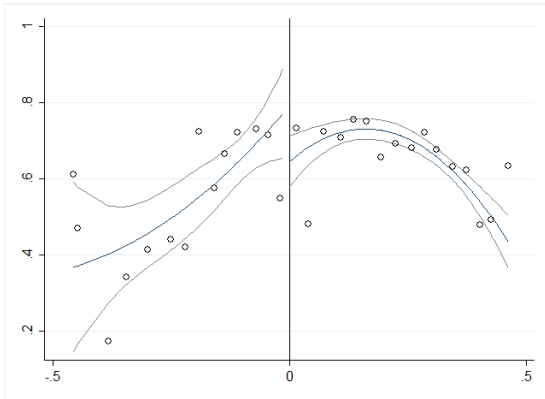


(g) WATER EXPENDITURE

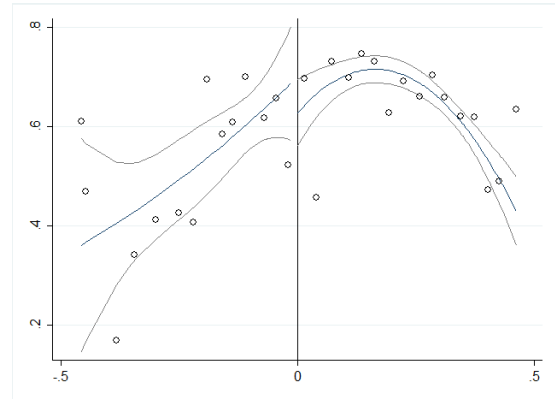


(h) ELECTRICITY EXPENDITURE

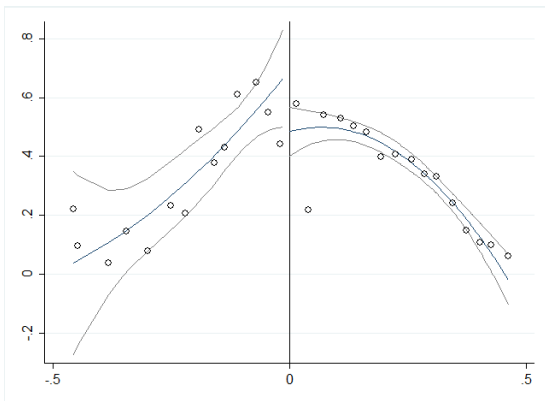
Figure 2: THE RD DESIGN: ECONOMIC AND SOCIAL VARIABLES



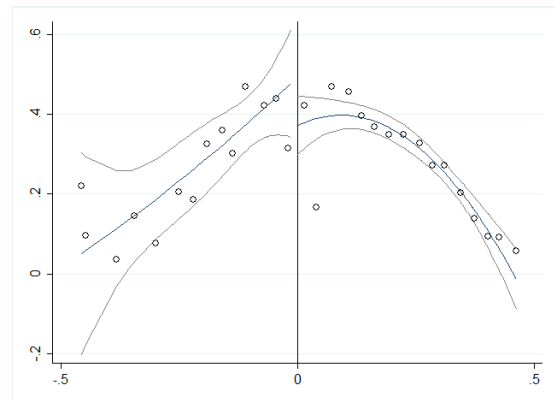
(a) SHARE WITH ELECTRICITY



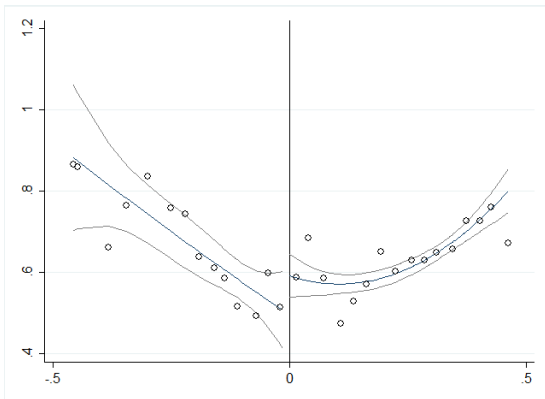
(b) SHARE BLACK WITH ELECTRICITY



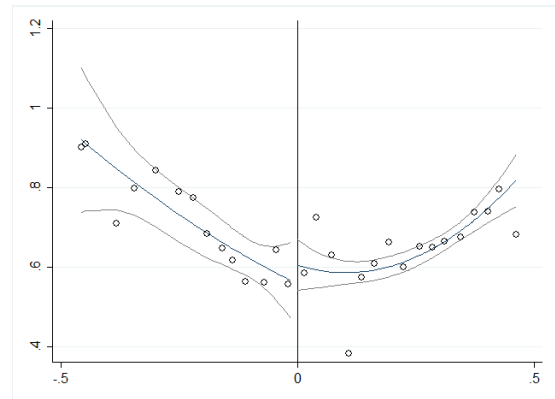
(c) SHARE WITH PIPED WATER



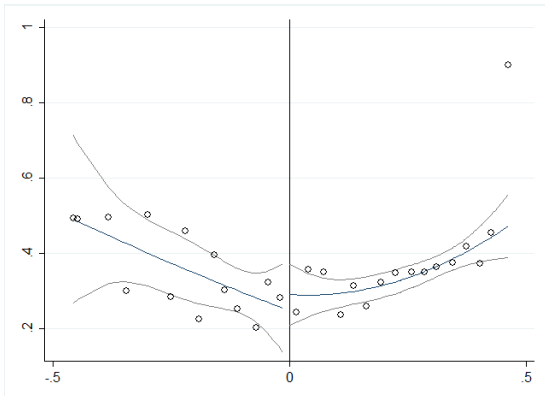
(d) SHARE BLACK WITH PIPED WATER



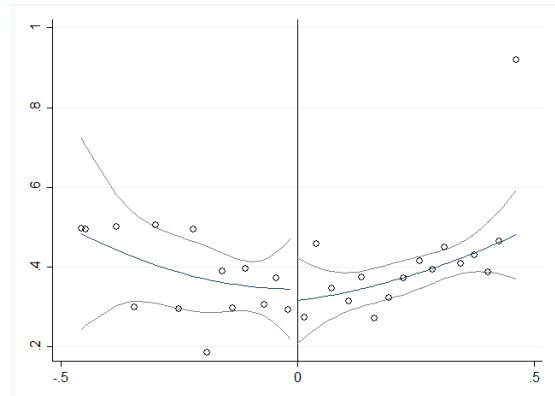
(e) POVERTY



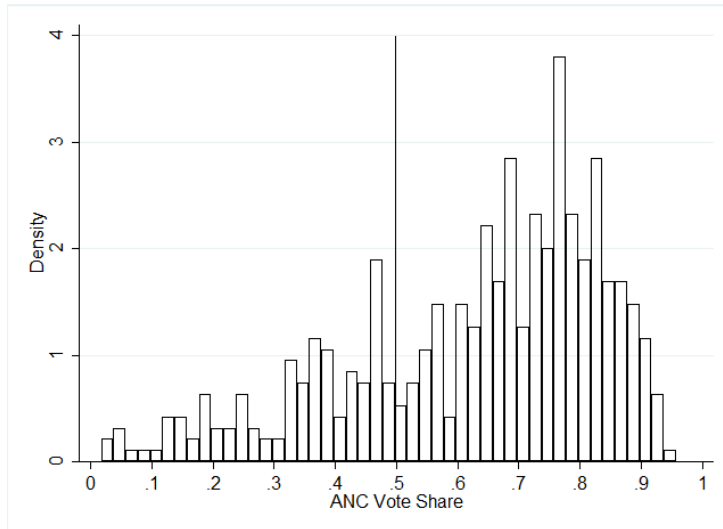
(f) BLACK POVERTY



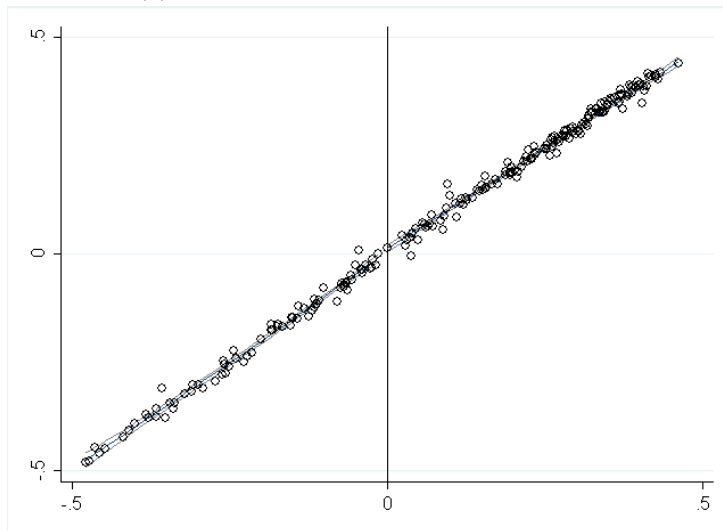
(g) UNEMPLOYMENT



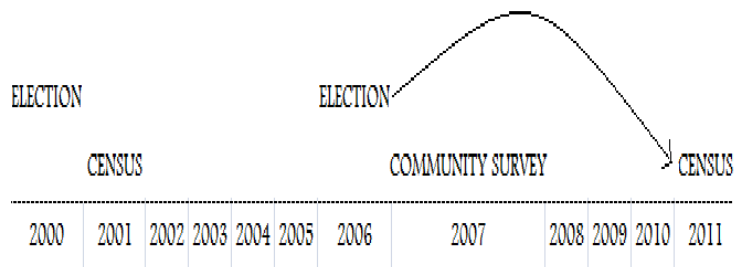
(h) BLACK UNEMPLOYMENT



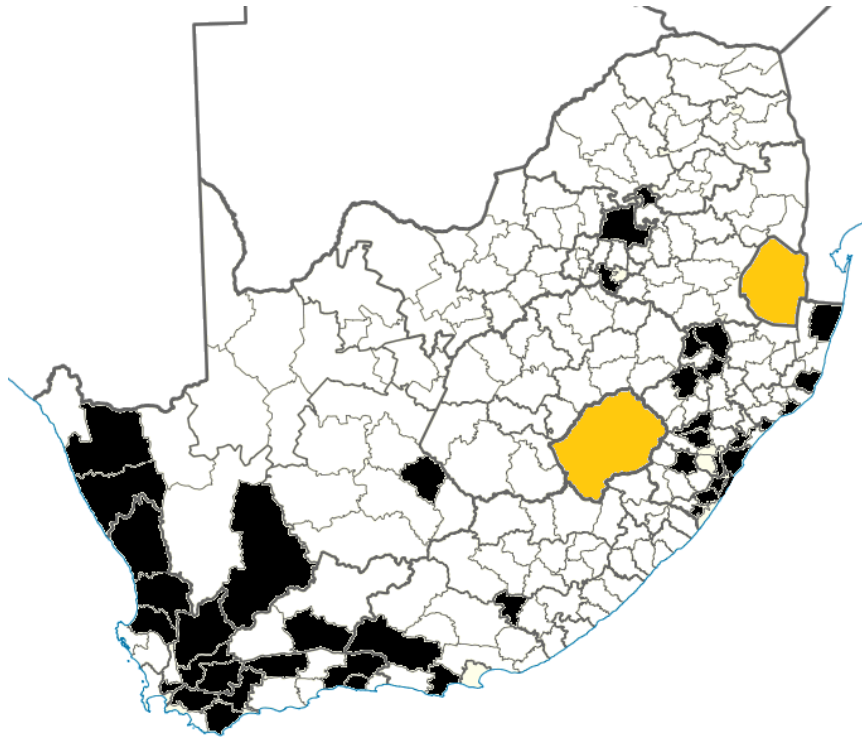
(a) DENSITY OF ANC VOTE SHARE



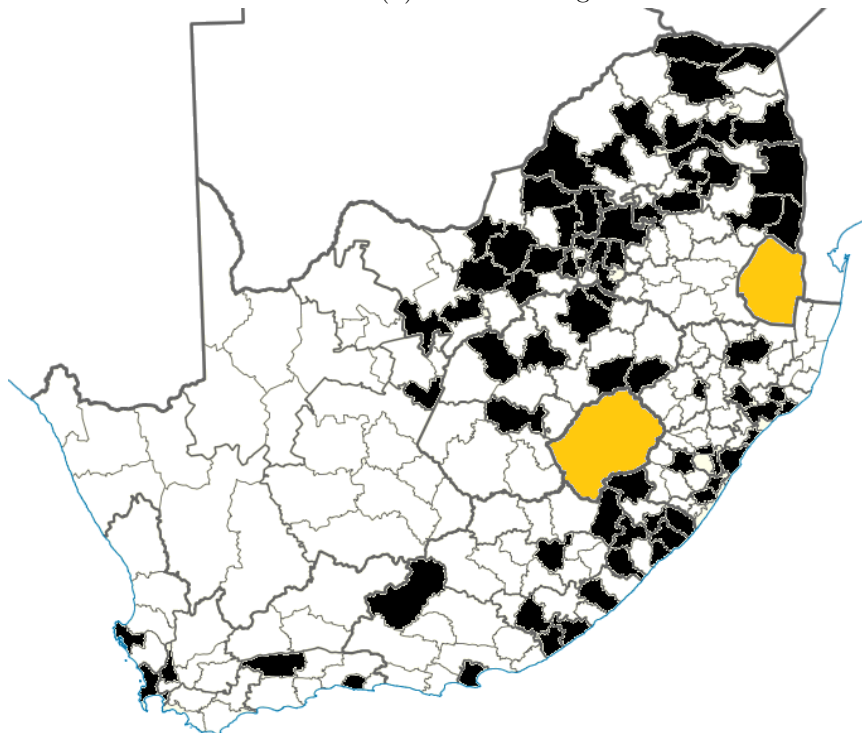
(b) RELATIONSHIP BETWEEN SEAT- AND VOTE SHARE



(c) CHOICE OF ECONOMIC OUTCOME DATA



(d) The RD Design



(e) The IV Design

The black areas in the top figure show close-election municipalities, defined as being within a ten per cent bandwidth of the ANC seat share were we to use an RD design. The second figure displays close elections for the ANC such as defined with the IV approach. The yellow areas are Lesotho and Swaziland.