Public Services Provision in South Africa

The Variation in Access to Electricity, Water, and Sewerage at the Municipal

Ward Level between 1996 and 2001.

Sarah Gray Knoesen

University of California, San Diego

sknoesen@ucsd.edu

Draft Prepared for Presentation at Democracy and its Development Conference

Center for the Study of Democracy, UC Irvine

May 2007

In 1994, the African National Congress (ANC) won South Africa's first democratic elections with 62.6% of the vote. Every election since then has served to strengthen the ANC's grasp on political power – not only at the national level, but also at the provincial and municipal level. The ANC inherited a highly unequal society, where the top 5% of the population consumed more than the bottom 85%. In 1995, state social spending on black South Africans was a mere one-third of social spending on white South Africans, while white South Africans had an average per capita income of more than eight times that of black South Africans.¹

The ANC faced a momentous task; they needed to address these social inequalities without doing any serious damaged to the economy. Rather than opting for a radical program of redistribution, the ANC elected to address the inequality in social spending by reallocating taxes to fund social programs, rather than increasing taxes to do so. Van der Berg (1998) argues that addressing social spending is the most effective method of redistribution the ANC has at its disposal.

Addressing the social inequalities in South Africa is of fundamental importance for the survival of the ANC as ruling party and for democratic government in general. By addressing the inequalities, the ANC can establish and increase the economic legitimacy of the democratic regime, which in turn will increase their political legitimacy.² Establishing and maintaining the legitimacy of the democratic regime is important, as a lack of legitimacy can lead to either the

¹ Van der Berg and Louw, 2004, p14.

² Van der Berg, 1998, p251

failure of democracy to consolidate (O'Donnell, 1986) or the failure of democracy as a whole (Diamond, 1990).

The ANC adopted the Reconstruction and Development Programme (RDP) shortly after the 1994 elections. A primary goal of the RDP was to address social inequalities by meeting the basic needs of the population. The programme was initially put forth as part of the ANC's election manifesto, and was expanded (as detailed in the RDP White Paper) after its adoption. The RDP defined basic needs as "jobs, land, housing, water, electricity, telecommunications, transport, a clean and health environment, nutrition, health care, and social welfare"³ While the RDP was disbanded by 1996, the goals of the RDP – especially in terms of addressing basic needs concerns – live on in post-RDP programs.

In this paper, I focus on a subset of the basic needs as laid out by the RDP. In particular, I am interested in the number of households that received electricity, water, and sewerage connections, which the government defines as core services. I argue that the ANC uses the allocation of new electricity, water, and sewerage connections as political currency. The goal of this paper is to analyze what best explains why some wards had a substantially larger increase in households with water, electricity, and sewerage connections between 1996 and 2001⁴. Do wards with the lowest percentage of households with access receive the most new connections? In other words, is the ANC engaging in pure redistribution by spending the most money on wards that need it the most? Alternatively, is there a more political story that explains the difference between wards? Does the ANC choose to reward areas that supported the ANC at

³ ANC, 1994, p. 7

⁴ Please note that I use access to electricity, water, and sewerage interchangeably with the concept of having an electricity, water, and sewerage connection. In other words, the reader should assume that a household that has access to electricity actually has a connection to the gird, and uses electricity inside their home.

higher levels in the 1994 elections, or does it spend money in areas where it is trying to increase its political support?

I find that race has a significant effect on the change in the percentage of households with electricity, water, and sewerage connections in a given ward between 1996 and 2001. I also find that wards in provinces with higher levels of support for the ANC in the 1994 elections received a larger increase in the percentage of households with connections to the core services.

The paper will progress as follows; in Section II, I review the theories of redistribution that could explain the variation in the percentage of households that received new connections between 1996 and 2001. I also outline my hypotheses. Section III provides a short overview of South Africa – in terms of its political history, the resulting inequalities, and the RDP's plan to address these inequalities. Section IV presents my data and variables. I discuss my results in Section V, and conclude in Section VI.

Section II: Theories

Redistribution

The basic theory of redistribution in new democracies (with high inequality) states that governments must address the unequal resource distribution to reduce inequality if democracy is to survive. Although many people assume that income redistribution through taxes is the only way to address inequality, it is also possible to address inequality by adjusting social spending. In the latter case, the goal is to bring the disadvantaged groups to the same level as the currently more privileged group(s) by reallocating government spending without substantially increasing expenditure.

Van der Berg (1998) argues that the ANC will focus social spending on visible projects that have a significant, direct impact on people's welfare. He also argues that education will most likely not be a major focus of the redirected social spending, as it only brings benefits in the long run. This is not to say that we will not see the ANC addressing disparities in education and access to education, just that – especially in the years directly following the ANC's election - we are more likely to see activity with regard to more visible projects, which provide short run benefits. Increasing access to core public services (water, electricity, and sewerage) are visible projects that bring substantial benefits to the beneficiaries almost immediately.

If redistribution through redirected social spending is the main driving force behind which wards receive new connections to the core public services, wards with the lowest percentages of households with connections to each service respectively should see the largest increase in connections to that service, all else equal.

Patronage

The redistribution theory discussed above does not take into account that the ANC is a political party, and that it has an incentive to act politically in order to maintain and/or increase its political support. Unfortunately, assuming that the ANC approaches redistribution from a political point of view does not lead us to a clear set of predictions regarding which wards the ANC will favor. There are two major theories present in the literature. The first predicts that politicians will reward their core support group (c.f. Mayhew 1974, Cox and McCubbins 1986), while the second predicts that politicians will concentrate their rewards on swing-voters (c.f. Lindbeck and Weibull 1987). Dixit and Londregan (1996, 1998) develop a general model of transfers in which both the Cox and McCubbins (1986) and the Lindbeck and Weibull (1987) are

special cases (Cox, 2007). Dixit and Londregan show that if there is not a significant difference in parties' ability to levy and collect taxes, politicians will reward their core as in the Cox and McCubbins model. If, on the other hand, the parties have no special relationships with any groups, the parties' allocations are driven by the density of swing voters in each group—as in the Lindbeck-Weibull model.

It can certainly be said that the ANC has a special relationship with black voters. The ANC is seen as the party that brought about the fall of the apartheid government and the resulting freedoms for all black South Africans. Additionally, there is no reason to believe that one party will be better able to levy and collect taxes than any other in South Africa – taxes are levied at the national level by the South African Revenue Service, not by the political parties at the local level. These observations lead me to conclude that the Cox and McCubbins core support model is the most applicable to the South African case, and I will use it to analyze the ANC's behavior with regard to public services provision.

The phenomenon of rewarding your core supporters with particularistic policies or by diverting projects to their districts is generally known as pork-barrel politics in the American politics literature, and patronage in most other literatures. Scholars assume that patronage is the norm in African countries (c.f. Bratton and van de Walle 1997) which implies that voters will be better off when a co-ethnic holds office. The political actions of both political candidates and voters offer support for this theory. Chandra (2004) argues that voters in a patronage democracy do an ethnic head count and choose the party that has to most co-ethnics rather than using issue positions or ideology to differentiate between parties. Where ethnic groups are regionally concentrated, we often see a candidate receiving a majority of his home region's vote and barely

any support from other regions. Candidates also attempt to mobilize voters along ethnic lines by making implicit or explicit ethnic appeals.

Although patronage politics are assumed to be the norm, Kasara (2007) finds that cash crop farmers face higher taxes when they are from the same ethnic party as the president. She does not argue that this means that all voters are worse off when there is a co-ethnic in power, just that having a co-ethnic in power does not necessarily imply political benefits for co-ethnics. Kasara also argues that this effect of taxing the core will not be as strong in a democracy where voters have alternatives, since they can vote out politicians that tax them too much.

In South Africa, parties tend to align along racial, rather than ethnic lines, but the basic assumptions remain the same. The ANC has not made any serious attempts to portray itself as a multi-racial party, and South African voters tend to vote along racial lines. In 1994, 94% of people who voter for the ANC were black⁵ and white votes went almost uniformly to the two main opposition parties – the National Party and the Democratic Party.

Using public services provision to reward wards in areas that supported the ANC in the election is an easy and legal way for the ANC to reward its core supporters. The government is not required to spend the same amount of money on public services projects in each district, as the whole point of reallocating social spending is to equalize unequal districts. In other words, as long as the government does not completely neglect a district with almost no access to the core services it would be very difficult for the casual observer to notice whether or not the ANC is favoring its own constituencies.

If patronage is the driving force behind the allocation of new water, electricity, and sewerage connections, wards in areas that voted for the ANC at higher percentages should see the largest increase in households with access to the core services.

⁵ Reynolds, 1994, p191

In 1995 South African municipalities were redrawn. Unfortunately, this means that municipal level data for the 1994 election does not correspond to municipal level census data. This means that, with the current data, I can only analyze variation in ANC support at the provincial (rather than the municipal) level. To analyze the municipal level variation in ANC support, I use race a as a proxy for ANC support.

Race

Race (rather than ethnicity or language) is the most salient cleavage in South Africa due to the racist policies implemented by the apartheid regime, and the subsequent inequalities that fall mainly along racial lines. The ANC draws most of its support from black voters, although it receives some support from the other racial groups. This is especially true for the 1994 national elections. In 1994, 19.5 million people voted in the election, of the estimated 14.2 million black voters, 11.5 million voted for the ANC. That means that more than 80% of black voters cast their vote for the ANC. I thus find race to be a good proxy for party support, especially for the ANC.

Since race is simply a proxy measure of ANC support, the expectation is the same as for the party line patronage hypothesis above. Wards with a higher percentage of black residents will see a larger increase in households with access to the core public services.

Hypotheses:

Based on the theories discussed above I develop three hypotheses.

H₁: *Redistribution*.

Wards with a lower percentage of households with access to electricity, water, and sewerage will experience a larger increase in access to services between 1996 and 2001 than wards with a higher percentage of households with access.

H₂: Party line patronage

Wards in provinces with higher support for the ANC will experience a larger increase in the percentage of households with access to electricity, water, and sewerage between 1996 and 2001, than wards in provinces that showed less support for the ANC.

H₃: *Patronage* (where race is a proxy for party support)

Wards with a higher percentage of black residents will experience a larger increase in the percentage of households with access to electricity, water, and sewerage between 1996 and 2001, than wards with a lower percentage of black residents.

III: South Africa

South African democracy started under a strong power-sharing agreement. The interim constitution called for a Government of National Unity (GNU) where all major parties could claim cabinet seats. In 1994, the GNU consisted of the ANC, the Inkatha Freedom Party (IFP), and the National Party (NP). The GNU adopted the Reconstruction and Development Programme (RDP) which enumerated five key programs it hoped to implement; 1. meeting basic needs, 2. developing human resources, 3. building the economy, 4. democratizing the state, and 5. implementing the RDP (i.e. securing the funding and setting the programs into motion).⁶

A common misconception about the lack of public services in South Africa is that citizens did not have connections to these services because they lacked the ability to pay for these services. Income is only party of the story however. The apartheid regime implemented policies designed to oppress black South Africans. One of these oppressive policies confined all blacks to black townships or Bantustans. The infrastructure needed to provide these areas with electricity, running water, and sanitation was simply not developed. Thus race, much more so than income was the driving factor in whether or not an area received infrastructure and access to basic public services. The goal of the RDP is (in part) to correct these past injustices.

Van der Berg (1998, 2000, 2001) argues that equalizing social spending across racial groups is the best method of redistribution the South African government has at its disposal. He estimates that social spending on the poorest 40% of households rose by about 50% between 1993 and 1997, which was in part accomplished by reducing per capita social spending on the rich and in part by increasing social spending as a whole. Seekings and Nattrass (2002) argue that the ANC will not opt for income redistribution by extending the tax base. They argue that although the African working class earns significantly less than the upper class, the average annual household income of the African working class is above the median of the overall average household income. Accordingly, the working class seeks to protect their semi-privileged position, and resist any change in the tax code that might transform them from beneficiaries to contributors of fiscal redistribution. It has also been argued that the ANC fears that full-blown redistribution will fuel capital flight. White South Africans can credibly threaten to leave the country, since they have both transferable skills and the financial means to leave the country.

⁶ ANC, 1994, p7

Full-scale redistribution is also likely to decrease confidence in the South African economy, which will decrease foreign direct investment. Thus although the ANC can increase revenue and decrease inequality quite easily by simply increasing taxes on the elite (at least on paper), this analysis must include an analysis of how the economy will be affected by this decision. If increasing taxes on the elite leads to a decrease in the number of elite to be taxed and/or a decrease in investment, then it might not be in the ANC's best interest to change the tax code. Scholars thus agree that the ANC should and will focus on adjusting social spending rather than monetary or land transfers to address inequality.

IV: Data, Variables, and Methods

Unit of Analysis:

My unit of analysis is the ward, which is the smallest level of demographic analysis in South Africa. Wards are subdivisions of municipalities, which in turn are subdivisions of provinces. There are 9 provinces, 283 municipalities, and 3715 wards. The large number of wards in relation to the population of South Africa means that wards are approximately homogenous, and we see more variation between wards than within them. Using ward level data increases the number of observations tenfold, which means that I can have more confidence in my statistical measures.

Data:

I have census data for both the 1996 and 2001 censuses. The ward level data provided by the census contains detailed information about individuals and households. Specifically it has a

measure of the number of households in the ward with access to electricity, water, and sewerage. It also contains nearly all the other demographic variables I am interested in – income, race, and number of households. The census does not however contain a measure of urbanization. For this measure, I turn to the Municipal Demarcation Board's Capacity Assessments, which only disaggregate to the municipal level. The census also does not contain information on the 1994 election results. I use the vote share in the 1994 national elections to measure support for the ANC.

Due to missing observations, I had to drop a number of wards from the analysis – less than 20 in total. In general, these wards lacked information on either 1996 income levels, or service levels in 1996. Occasionally the missing data was from 2001. The wards I dropped from the analysis were not clustered in one province, but usually had very small population sizes (for the wards that this information was available). Thus, excluding these wards should not affect my results in an observable way.

Dependent Variable:

Although I have been talking about electricity, water, and sewerage as one concept up until this point, I actually test the change in access to each of these services separately. I measure the three services separately because the cost of providing each service is different. I measure having an electricity connection as using electricity for lighting. I measure having a water connection as having running water either inside the dwelling or inside the yard. The key here is that water inside a person's house or yard can be seen as a private resource, whereas water in a common area, whether from a well, a river, a vendor, or somewhere else is a communal resource. Finally, I measure having a sewerage connection as having a flush toilet.

I measure change in the percentage of households with an electricity connection as the difference between the percentage of households that use electricity for lighting in 2001 and the percentage of households that use electricity for lighting in 1996. I do not measure it simply as percentage change, because a large number of wards had no electrified houses in 1996, which means that percentage change would not accurately capture the size of the change.

I measure change in the percentage of households with a water connection, as the difference between the percentage of households that have water either inside their dwelling or inside their yard in 2001 as compared to the same measure in 1996. I do not use percentage change for the same reason as stated above.

Lastly, I measure change in the percentage of households with a sewerage connection, as the difference between the percentage of households that have a flush toilet in 2001 as compared to 1996. Once again, I do not use percentage change for the same reasons as above.

Explanatory Variables:

The three key explanatory variables in my study are; level of access in 1996 for electricity, water, and sewerage, ANC support in 1994, and percentage of black residents.

Initial level of access. The main explanatory variable in the redistribution hypothesis is the initial level of access. I measure this as the percentage of households with a connection to each core public service in 1996. The higher the initial level of access is, the smaller I expect the increase between 1996 and 2001 to be.

ANC support. I use the vote share in the 1994 national elections to measure support for the ANC at the provincial level. This is the main explanatory variable of the party line patronage hypothesis. I do not use the 1995 local elections because the boundaries were subsequently redrawn and do not match onto the census wards in my analysis.

Percentage of black residents. Finally, the percentage of black residents in a ward is a very straightforward – it is simply the number of people who identify as Black African on the Census as a percentage of the total population in that ward. This is the main explanatory variable of my racial patronage hypothesis.

Control Variables:

Urbanization. I control for the level of urbanization, since it is much cheaper on a per capita basis to provide services in densely populated areas, than in rural areas. I control for urbanization at the municipal level, not at the ward level. Although this is not ideal, the data is not available at the ward level, and it is not highly variable across municipalities because the most densely populated urban areas constitute their own municipalities. I would expect urbanization to have a positive effect on the percentage change in service.

Log Total population. I measure total number of households, rather than total population since the dependent variable is in terms of households. Following the same line of reasoning as above, it is more cost effective to provide services to a larger community, than a small one. I expect the number of households to have a positive effect on service provision.

Log Income. I control for average annual household income in 1996. Given the theory of redistribution, I expect income to have a negative effect on the percentage change in service – in other words, I expect that poorer wards will receive more per capita social spending.

V: Results

Table 1 presents the results for Hypothesis 1, which predicts that wards with a lower percentage of households with electricity, water, and sewerage connections will experience a larger increase in connections to the services between 1996 and 2001 than wards with a higher percentage of households with connections. I test the change in access for each of the three public services separately. As expected, the level of service in 1996 has a statistically significant negative effect on the percentage change in public service access, when controlling for urbanization, income, and number of households. In other words, the lower the percentage of households with connections to the core public services in 1996, the larger the increase in connections between 1996 and 2001. The problem with this model is that it does not control for political affiliation or race, which I expect will have a significant impact on which wards receive more access to the core services.

<< Table 1 About Here >>

Table 2 presents the results of the test of Hypothesis 2. This hypothesis tests the theory that wards in provinces that supported the ANC at higher levels in 1994 will experience a large increase in connections to core public services. The negative effect of the 1996 access levels remains significant for each public service. However, the coefficient on the ANC vote share in the national elections is also significant. Thus, as expected, a higher vote share for the ANC at the provincial level is correlated with an increase in public service access at the ward level between 1996 and 2001 when controlling for initial level of service, urbanization, income, and number of households.

It is important to note that the percentage of households with connections in 1996 has a statistically significant effect on the change in percentage of households with connections between 1996 and 2001, even when I include ANC support.

<< Table 2 About Here >>

Table 3 presents the results of Hypothesis 3. In this hypothesis, I use the proportion of black South Africans in a ward as a proxy for ANC support. This hypothesis predicts that wards with a higher percentage of black residents will experience a larger increase in the percentage of households with access to electricity, water, and sewerage between 1996 and 2001. Once again, the effect of initial level of service remains statistically significant and negative. Race, like ANC support above, has a statistically significant positive effect on the increase in access in a ward. In other words, even when controlling for initial level of service, urbanization, income, and number of households, wards with a higher percentage of black residents receive a larger increase in access than other wards.

<< Table 3 About Here >>

As mentioned before, the first model is problematic since it does not include any political variables. Although the second model includes an explicitly political variable – ANC vote share – this variable is not optimal, since it is measured at the provincial level. The third model uses percentage black resident in a ward as a proxy for ANC support. This measure is superior to the provincial vote share because it is measured at the ward level, and is an excellent proxy of ANC

vote share at the ward level, given that more than 80% of black voters supported the ANC in the 1994 elections. I do not include percentage of black residents and ANC provincial support in the same regression, as these two variables are highly correlated.

Table 4 presents the results of a slight variation on Hypothesis 3. Instead of simply using the proportion of black residents in a ward, I look at the racial fractionalization in a given ward. I use the standard definition of ethnic fractionalization (the probability that two people selected from the population at random will be from different ethnic groups) employed in the literature, but operationalize it as racial fractionalization by using the four main racial groups. I measure racial fractionalization for each ward separately using the census data. In general, those wards with higher racial fractionalization have a larger population of white residents, while wards with low racial fractionalization have mostly black residents. Thus, I expect that wards with higher levels of ethnic fractionalization will experience a smaller increase in access to public services. I find that for each public service, higher levels of ethnic fractionalization are significantly correlated with a smaller increase in access to public services.

<< Table 4 About Here >>

Finally, I run a regression with fixed effects at the municipality level for each public service. Using fixed effects allows me to control for unobserved variables at the municipal level, such as quality of governance. I find that, even when controlling for municipal effects and initial level of service, black wards still receive a higher increase in access to services between 1996 and 2001.⁷

⁷ Not shown.

VI: Conclusion

In this paper, I have shown that the ANC uses the allocation of new electricity, water, and sewerage connections as political currency. Rather than distributing new connections based solely on need, the ANC favors its constituencies. I have shown that else equal, wards in provinces that strongly supported the ANC in the 1994 elections will see a larger increase in households with access to the core services. This does not mean that the ANC ignores the wards that need water, electricity, and sewerage connections the most,

The government will be spending a set amount of money on addressing the basic needs of the population. If the ANC can ensure that, at least in the initial stages, their constituents receive the benefits first, they can get 'more bang for their buck.' In other words, the ANC can use government money to reward their constituents and increase loyalty to the party while reducing inequality and increasing the average standard of living in South Africa.

I also find that race is a significant predictor of whether or not a ward will see an increase in access to the core public services. In future research I hope to map the municipal level results for the 1994 election onto the current municipalities to test the effect of ANC vote share at the municipal level on the change in households with access in a given ward. Table 1: Redistribution Hypothesis.

Wards with a lower percentage of households with access to electricity, water, and sewerage will experience a larger increase in access to services between 1996 and 2001 than wards with a higher percentage of households with access.

COEFFICIENT	Electricity_Change	Water_Change	Sewerage_Change
percent_Elec_96	-0.437***		
	(-0.014)		
percent_Water_96		-0.264***	
		(-0.011)	
percent_Sewerage_96			-0.143***
			(-0.01)
propurban96	0.0608***	0.151***	0.121***
	(-0.012)	(-0.0098)	(-0.0092)
logincome96	0.0191***	0.0205***	-0.0218***
	(-0.007)	(-0.0051)	(-0.0051)
loghouseholds96	-0.00594	-0.0197***	-0.00205
	(-0.0054)	(-0.0039)	(-0.0037)
Constant	0.199***	0.0281	0.216***
	(-0.069)	(-0.049)	(-0.05)
Observations	3697	3697	3697
R-squared	0.3	0.17	0.12
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

 Table 2: Party line patronage

Wards in provinces with higher support for the ANC will experience a larger increase in the percentage of households with access to electricity, water, and sewerage between 1996 and 2001, than wards in provinces that showed less support for the ANC.

COEFFICIENT	Electricity_Change	Water_Change	Sewerage_Change
percent_Elec_96	-0.428***		
	(-0.014)		
percent_Water_96		-0.265***	
		(-0.011)	
percent_Sewerage_96			-0.137***
			(-0.01)
ancshare	0.209***	0.0254**	0.0435***
	(-0.014)	(-0.011)	(-0.01)
propurban96	0.0879***	0.155***	0.125***
	(-0.012)	(-0.01)	(-0.0093)
logincome96	0.0243***	0.0228***	-0.0208***
	(-0.0068)	(-0.0051)	(-0.0051)
loghouseholds96	-0.0124**	-0.0207***	-0.00335
	(-0.0053)	(-0.004)	(-0.0037)
Constant	0.0428	-0.00351	0.184***
	(-0.068)	(-0.05)	(-0.051)
Observations	3697	3697	3697
R-squared	0.34	0.17	0.12
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

Table 3: Patronage (Race as proxy for party support)

Wards with a higher percentage of black residents will experience a larger increase in the percentage of households with access to electricity, water, and sanitation between 1996 and 2001, than wards with a lower percentage of black residents.

COEFFICIENT	Electricity_Change	Water_Change	Sanitation_Change
percent_Elec_96	-0.432***		
	(-0.014)		
percent_Water_96		-0.264***	
		(-0.011)	
percent_Sanitation_96			-0.142***
			(-0.01)
Propblack96	0.0829***	0.0269***	0.0457***
	(-0.014)	(-0.01)	(-0.0096)
Propurban96	0.0691***	0.154***	0.126***
	(-0.012)	(-0.0099)	(-0.0093)
Logincome96	0.0446***	0.0291***	-0.00736
	(-0.0082)	(-0.006)	(-0.0059)
Loghouseholds96	-0.00997*	-0.0211***	-0.00437
	(-0.0055)	(-0.004)	(-0.0037)
Constant	-0.0909	-0.0684	0.0538
	(-0.085)	(-0.061)	(-0.061)
Observations	3697	3697	3697
R-squared	0.31	0.17	0.12
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

Table 4: Racial Fractionalization

COEFFICIENT	Electricity_Change	Water_Change	Sewerage_Change
percent_Elec_96	-0.443***		
	-0.014		
percent_Water_96		-0.266***	
		-0.011	
percent_Sewerage_96			-0.150***
			-0.01
Racial_Frac	-0.245***	-0.0624***	-0.158***
	-0.023	-0.017	-0.016
propurban96	0.0734***	0.155***	0.131***
	-0.012	-0.0099	-0.0091
logincome96	0.0627***	0.0316***	0.00727
	-0.008	-0.0059	-0.0058
loghouseholds96	-0.0115**	-0.0212***	-0.00573
	-0.0054	-0.004	-0.0036
Constant	-0.155**	-0.0618	-0.0217
	-0.076	-0.055	-0.055
Observations	3697	3697	3697
R-squared	0.32	0.17	0.14
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

Works Cited

- ANC, African National Congress. 1994. "The Reconstruction and Development Programme. A Policy Framework."
- Bratton, Michael and Nicolas van de Walle. 1997. Democratic Experiments in Africa: Regime Transitions in Comparative Perspective. New York: Cambridge University Press.
- Chandra, Kanchan. 2004. Why Ethnic Parties Succeed. Patronage and Ethnic Head Counts in India. New York: Cambridge University Press.
- Cox, Gary and Mathew McCubbins. 1986. "Electoral Politics as a Redistributive Game." *Journal of Politics* 48 (2).
- Cox, Gary. n.d. "Swing voters, core voters and distributive politics." Paper prepared for the Workshop on Elections and Distribution. Yale, 2007.
- Diamond, Larry. 1990. "Three Paradoxes of Democracy." Journal of Democracy 1 (Summer).
- Dixit, Avinash and John Londregan. 1996. "The Determinants of Success of Special Interests in Redistributive Politics." *Journal of Politics* 58 (4).
- Dixit, Avinash and John Londregan. 1998. "Ideology, tactics, and efficiency in redistributive politics." *Quarterly Journal of Economics* 113:497–529.
- Kasara, Kimuli. 2007. "Tax Me If You Can: Ethnic Geography, Democracy, and the Taxation of Agriculture in Africa." *American Political Science Review* 101 (01):159-72.
- Levitt, Steven D and James M Snyder Jr. 1997. "The Impact of Federal Spending on House Election Outcomes." *Journal of Political Economy* 105 (1).
- Lindbeck, Assar and Jorgen W. Weibull. 1987. "Balanced-budget Redistribution as the Outcome of Political Competition." *Public Choice* 52.
- Mayhew, David R. 1974. *Congress. The Electoral Connection*. New Haven: Yale University Press.
- O'Donnell, Guillermo. 1986. "Introduction to the Latin American Cases." In *Transitions from Authoritarian Rule: Prospects for Democracy*.ed. G. O'Donnell, Phillipe C. Schmitter and Laurence Whitehead. Baltimore: Johns Hopkins Press.
- Reynolds, Andrew. 1994. "The Results." In *Election '94 South Africa*, ed. A. Reynolds. New York: St Martin's Press.
- Seekings, Jeremy and Nicoli Nattrass. 2002. "Class, Distribution and Redistribution in Post-Apartheid South Africa." *Transformation* 50.
- van der Berg, Servaas. 1998. "Consolidating South African Democracy: The Political Arithmetic of Budgetary Redistribution." *African Affairs* 97.
- van der Berg, Servaas. 2000. "An analysis of 1997 school data flowing from work on the fiscal incidence of social spending in South Africa". Report for the Department of Finance.
- van der Berg, Servaas. 2001. "An analysis of fiscal incidence of social spending in South Africa, 1993-97", *Social Dynamics* 27(1).
- van der Berg, Servaas and Megan Louw. 2004. "Changing Patterns of South African Income Distribution: Towards Time Series Estimates of Distribution and Poverty." *South African Journal of Economics* 72 (3).