Is democracy working? Determinants of local government performance (failure) in Mali

Jessica Gottlieb

Stanford University, Political Science

April 27, 2010

Abstract

This paper contributes to the ongoing debate about democracy's role in development by identifying avenues of democratic failure in a developing country context. I argue that particular featrues of developing countries make voters less likely to control politicians and political parties more likely to collude with one another. Using a unique local-level dataset from one developing democracy, Mali, I test these sources of democratic failure and the conditions that make them more or less likely. I explore variation in local public goods provision across localities as a proxy for understanding the determinants of government performance. I find that voters are better able to control politicians when parties are more numerous and fragmented and when information asymmetries are reduced, but that the effects of party competition are conditional on information. I also find that collusion is less likely in the prescence of relatively strong opposition parties that provide a credible threat. Matching and regression discontinuity are some of the identification strategies used to reach these conclusions.

1

1 Introduction

It is often taken for granted that democracy has a positive impact on development, but this relationship has proven less clear particularly in developing countries. While some cross-country studies find that democracy has a positive effect on public goods provision (Stasavage, 2005; Besley and Kudamatsu, 2006), others find either no effect in poor settings (Boix, 2001) or no significant effect at all (Ross, 2006). This paper aims to fill a gap in the literature which is inconclusive about democracy's role in development by identifying the mechanisms by which democratic institutions influence development outcomes. It improves upon cross-country studies, by exploiting the wealth of within-country variation created by political decentralization in one developing democracy, Mali. Using a unique new dataset disaggregated to the local level, I examine political determinants of variation in local public goods provision. With these commune-level data, I can evaluate whether democracy is working as theory predicts by identifying the mechanisms through which local elections influence public goods provision.

In democracies, elections are the main mechanism by which politicians are disciplined to produce policies favorable to voters. Barro's (1973) seminal work on control of politicians shows that without elections, the office holder will not automatically act in the public interest. With elections, the office holder will act in the public interest if staying in office is more valuable than corrupt or self-interested activity. I argue that elections will only generate accountability, or induce the office holder to act in the public interest, if two conditions are met. First, voters must be able to exert some control over politicians. And second, there must be an adequate level of party competition. These conditions are not independent, but rather mutually reinforcing. Party competition is more likely to be meaningful in a context where voters are active citizens. On the other hand, voters are more likely to exercise control over politicians if there are meaningful differences between parties.

I argue that particularly in developing country settings, these two conditions can fail leading to a bad democratic equilibrium. First, low voter expectations resulting from poor literacy, geographic isolation and a history of bad governance impede voters from holding elected officials sufficiently accountable. Second, a defined elite class and lack of policy-relevant cleavages make it easier for political elites from different parties to collude rather than compete. This paper explores these two related sources of democratic failure: when voters fail to sanction

politicians for bad behavior, and when parties collude rather than compete. Using variation in local governance across Mali's communes, I identify conditions under which such democratic failure is more likely.

Mali is a germane case in which to examine how democracy is functioning in a poor country because it is largely rural and underdeveloped with a democratic political system nearly two decades old. The recent policy of decentralization divided the country into 703 locally-governed "communes," bringing democratic governance closer to the people. Theory predicts that decentralized levels of democratic government are more responsive because they are presumed to have better information about the "particular preferences and circumstances of their constituencies" and are thus able to more efficiently provide goods and services resulting in "increases in economic welfare above that which results from the more uniform levels of such services that are likely under national provision" (Oates, 1999). However, Malians are twice as poor and half as literate as those in the average sub-Saharan African country – with a literacy rate in Mali of 24 percent and GNI per capita at 500 USD[1]. Poverty and education are important determinants of the strength of a civic community: voters who are wealthier and more educated are better able to exert control over politicians. And civic culture has been argued by some to explain the responsiveness and effectiveness of democratic governance (Almond and Verba, 1963; Putnam, 1993). In essence, this paper is testing how some of the best democratic institutions fare in one of the most challenging settings.

In the empirical analyses of whether local governments are being held accountable, I use local public goods provision as an observable measure of electoral control. I make the assumption that citizens in Mali prefer to increase the bundle of public goods provided relative to the status quo. Politicians do not prefer to increase public goods either because it comes at a cost to them, or because they prefer to consume the public goods budget as private income. With this assumption, I can infer that democratically administered localities achieving higher local public goods provision have done so through improved electoral control, all else equal.

To test whether voters failing to sanction elected officials is engendering poor performance, I explore the relationship between information and public goods provision. Through a matching strategy, I find that in otherwise similar communes, those with a local radio station deliver relatively higher levels of

---

[1]World Bank. 2009. "Mali at a Glance." http://devdata.worldbank.org/AAG/mli_aag.pdf. Accessed June 9, 2009.

local public goods. I then show that voter control and political competition are interrelated. I find that local public goods provision is increasing in political competition only in communes with a local radio station. This suggests that political competition without voter informaiton will not generate better accountability.

I test the second avenue of democratic failure, the incidence of collusion among party elites, using regression discontinuity design. In Malian communes, councilmembers are directly elected to local government by a proportional vote with over five political parties represented on the average council. In nearly a third of communes, all candidate parties get at least one member on the council. I test whether there is more collusion in these communes than in communes where there is at least one out-party that ran but did not get any seats on the council. I suggest that relatively strong opposition parties that do not win seats on the council may be able to reduce the amount of collusion within local government by posing a credible threat. Because there may be some unobservable leading to both low public goods provision and no out-parties, I use regression discontinuity as an identification strategy. I compare public goods provision in communes where where one party barely lost a seat on the council to communes where all parties that ran won seats but the weakest party won by a small fraction. The test is confirmatory: those communes in which a party lost by a small margin are better at providing local public goods than communes in which all parties gained seats on the council.

The empirical findings are suggestive of democratic failure in Mali via lack of voter control and inter-party collusion. The data shows that voter control improves when there is both sufficient information among voters and higher party competition. It also shows that collusion is less likely when there are reasonably strong opposition parties that are not elected to the local government council. The paper proceeds as follows. First, it reviews theories of accountability and proposes hypotheses to be tested empirically. Second, it lays out some of the relevant features of Mali's social and political system, thus suggesting how we might be able to appropriately generalize results of the paper. Third, it presents and analyzes the data. The last section concludes.

2 Theories of accountability

While cross-country studies are helpful in uncovering patterns in the rela-

tionship between regime type and outcomes, answering questions about how democracy is working in poor countries requires understanding the mechanisms underlying democratic governance. Specifically, we must understand the key characteristic that sets democracy apart from other systems of government: the ability of citizens to hold their government accountable (Riker 1953; Schmitter and Karl 1991). In this paper, accountability refers to the ability of the electorate to wield control over the politician and to bring the outcomes of his actions closer to the preferred outcomes of the voter. As in Barro (1973), voters are assumed to share preferences over public goods provision that are different from that of the politician. I argue that this is justified in a developing country setting because public goods are chronically underprovided, so citizens largely prefer more public goods compared to the status quo. While this idea may be challenged in the presence of higher income citizens who prefer fewer publicly provided services, the following analysis is restricted to rural areas where such individuals are rare.

First, I address some of the mechanisms through which voter control is postulated to improve accountability, and conditions that make these mechanisms more likely. Then, I address mechanisms through which party competition should improve accountability and where barriers to collusion are more likely. Fearon (1999) suggests there are two mechanisms driving voter control of politicians in democratic elections: sanctioning and selection. Voters either choose leaders retrospectively by holding them accountable for bad performance or prospectively by selecting good types. Where politicians are generally of low quality, the second mechanism is less likely. And where monitoring is weak, "the electoral sanction will not deter shirking by bad types, leaving electorates the option of sorting them out by performance and other measures, albeit poorly." Ferejohn's (1986) paper on electoral control favors the sanctioning mechanism reasoning that if officeholders have dissimilar preferences to voters, they will not find it in their interest to keep voter-friendly campaign promises, so voters will learn that selection based on campaign rhetoric is incredible. Myerson's (2006) model of democracy, however, relies on the selection mechanism. The commitment of keeping campaign promises is made credible by politician's interest in upholding a good reputation. The analyses in this paper will focus on the sanctioning mechanism, in part because Mali's democracy is young giving politicians little time to develop reputations, and in part because sanctioning for bad behavior is easier to observe than differences in types across candidates.

Voters are more likely to sanction officeholders when they have more infor-

mation with which they can better evaluate government performance. In an evaluation of performance, voters judge perceived government action against their own expectation of what government should be doing. Increasing information to voters can influence voter behavior in one of two ways. It can either improve voter perception of government activity, bringing perceptions closer to actual performance. Or, information can improve voter expectations, bringing expectations closer to government's true capacity. In either case, information will improve voter control by making voters more likely to sanction candidates that do not act in their interest (or retain incumbents who do).

The positive effect of information on voter control is supported by formal models (Ferejohn, 1986; Fearon, 1999; Besley, 2006) and also by empirical studies. Besley and Burgess (2002) compare how states in India respond to negative food shocks across different levels of newspaper circulation and find that government responsiveness is conditional on access to information. Similarly, Ferraz and Finan (2008) find that positive effects of re-election incentives on corruption in Brazilian municipalities are conditional on the presence of local media.

The distinction between types of information, i.e. information that improves perceptions vs. expectations, has not, to my knowledge, been made in the literature. It may become important in the context of democratic failure because only one of these types of information would be able to nudge a failing system out of its bad equilibrium. Democratic failure can be characterized as a bad equilibrium where voters expect little of their government officials and the government provides little in return. Both Fearon (2006) and Myerson (2006)'s models of democracy support such a bad equilibrium in democracies. In a successful democracy, voters have high enough expectations to induce wealth redistribution by elected leaders. In a failing democracy, voters expect nothing of government, so politicians fail to act in the public interest without retribution. An information shock to this latter system could result in a new equilibrium with higher expectations and better government performance. This would only work, however, if the information shock increased expectations of voters. If information simply served to provide better information about government inactivity without also increasing expectations, voters would not change their behavior. Section three provides qualitative evidence of how this conception of a bad equilibrium could characterize Mali's democracy. If the data shows that information indeed has positive effects on government performance, this is suggestive that a particular kind of information is at work: information that increases voter expectations rather than information that improves voter perceptions.

6

H1:   *Voter ability to control politicians is increasing in availability of information.*

Party competition can lead to improved government accountability through several mechanisms. First, if parties are more fractionalized and power more evenly distributed between them, they will be less able to collude. Second, parties in more competitive elections will seek to mobilize more voters to improve their chances of winning. A larger voter base, can in turn make public policy more representative. Third, competitive parties will invest more in election campaigns. These campaigns often disseminate politically relevant information to voters which *H1* predicts is positively related to voter control. And lastly, competitive parties will often political platforms that are more in line with voter preferences than their own preferences to try to capture as much of the vote share as possible. Ferejohn (1986) finds that not only party competitiveness, but also number of parties matters for government performance. As the number of parties falls, the out-of-office candidate is more likely to accede to office in the next term and the incumbent values being in office less because his chances of getting back into office in the future are higher. When the incumbent's relative valuation of office thus declines, he becomes less controllable by voters.

H2:   *Voter ability to control politicians is increasing in party competition and in the number of parties competing in the election.*

As suggested in the introduction, a voter's ability to sanction politicians and the extent of political competition are interrelated. If we introduce the possibility of collusion, then high levels of party competition will be meaningless without the underlying threat of sanctions. Thus, we should expect the effect of party competition to be conditional on the voter's ability to sanction politicians. First, there must be some information threshold where expectations are sufficiently high for party competition to produce an effect on voter behavior. Once that information threshold is reached, collusion is made more difficult by higher levels of fractionalization. If voters have poor information, on the other hand, then collusion is strictly preferred to providing public goods and it will occur with or without party competition.

H3:   *The effect of party competition on electoral control is conditional on information. Party competition is strongly correlated with electoral control in high-information contexts and weakly correlated or uncorrelated with electoral control in low-information contexts.*

7

The particular institutional design of local government in Mali presents another potential mechanism through which party competition could be working. The lowest level of territorial disaggregation in Mali for which there is a democratically elected government is the commune. Each commune is governed by a mayor and a council that has an average of 15 seats which varies with population size. Members of the council are democratically elected in nationwide municipal elections that occur every 5 years and are off-cycle from the presidential election. Seats are granted to parties based on proportional representation with an average of 5.5 parties represented. The mayor is chosen indirectly by the councilmembers.

I argue that the institutional design of local government in Mali facilitates collusion among parties represented on the council.[2] In the absence of effective means of monitoring by the population, parties that have successfully gained seats on the local government council have an incentive to participate in a collusive bargain to steal from the public coffers rather than use those funds in the public interest. Support for this type of elite behavior can be found in studies of political parties in authoritarian regimes (Bueno de Mesquita et al 2003; Haber 2006; Magaloni 2008) where incumbent parties ensure their survival by sharing power and goods. Such elite behavior is more likely when there exist information asymmetries between elites and voters. If all candidate parties that run in local elections win seats on the commune council (the case in nearly a third of all communes), then there is the greatest potential for collusion. If parties on the council are colluding, then the ability to undermine collusive bargains largely depends on the presence of opposition elites as they are likely to have more information and better incentive to undermine elite collusion. A party that gains no seats in council elections and therefore is excluded from the collusive bargain will seek to expose corrupt behavior to put itself in a better position for the next election. The stronger an out-of-office party, the more successful it will be in disciplining incumbent parties.

H4:   Commune councils in which there is a strong out-of-office party will

---

[2]Anecdotal evidence from a preliminary field visit to Mali in December 2008 suggests collusion among councilmembers may be occurring. In one commune, there was a much higher rate of tax recovery among villages that were of the opposition party compared to a lower rate of recovery in villages that allied with the commune council. In a second case, I observed evidence of the use of public funds for personal gain. Funds that had been granted to the commune government for school renovation were not used as intended. A teacher in the school knew nothing of the funds allocated to the project and was satisfied by the toilets that were installed using a small fraction of the total project budget.

> *be better disciplined than commune councils where all candidate parties are represented.*

3 Local government in Mali

For local government to be an interesting unit of analysis, it has to have some measure of autonomy, distinct responsibilities within its jurisdiction and the capacity to carry its responsibilities. *De jure*, Mali's communal governments have significant autonomy. Each is granted both the right to tax and the responsibility to provide for local public goods as well as make decisions on behalf of its people. Commune governments can decide to implement certain taxes to fund local initiatives.[3] In addition, they are entitled to 60 to 100 percent of certain state taxes[4] which make up a considerable portion of their budget and which they are also partly responsible for collecting.[5] Other fiscal revenue includes operating income and user fees, revenue from land, central government transfers, grants and loans. Communes legally possess the right to borrow, but none has yet exercised this right due to a lack of fiscal infrastructure. Communes and other subnational governments are granted autonomous administration of their budgets, though the budget drafted by the mayor must be approved by the state entity with supervisory responsibilities over the commune. Local governments are solely responsible for providing local public goods including health, sanitation, public transport, primary education, and communication and transportation infrastructure within the commune's jurisdiction. Communes are also responsible for the general management of the communal domain including the provision of security.[6]

While communes have significant autonomy and responsibility, the necessary capacity is often lacking. Commune governments can and do tax, but tax revenue, particularly in rural communes, is too small to finance the required outputs. Without formal businesses or factories, the primary source of tax revenue in rural communes comes from the TDRL, essentially a head tax, and from taxes

---

[3] These include an exit tax on public transport vehicles leaving the commune, a boat tax, a carriage tax, an event tax, a beverage tax, taxes on publicity, a construction tax, taxes on goats, and a garbage collection tax.

[4] These include taxes on local business, licensing fees, local development tax, taxes on cattle and firearms, vehicle taxes and taxes on timber cut from government forests.

[5] L'Assemblé Nationale du Mali. Loi N°00-044 du 07 JUILLET 2000. Déterminant les ressources fiscales des communes, des cercles et des régions.

[6] L'Assemblée nationale du Mali. Loi No. 95-034/AN-RM du 12 avril 1995. Code des collectivités territoriales.

on small market vendors. Not only is this revenue small compared to financing needs, but less than half of the taxable income is ever recovered. However, a para-statal agency called the ANICT (Agence Nationale d'Investissements dans les Collectivités Territoriales) was established in 2001 to alleviate capacity problems in the communes. It is responsible for transferring funds specifically for annual development projects to each commune. The amount of the transfer is determined by a specified formula that is contingent on observable factors such as the commune's poverty level and its distance to major cities. Each commune is eligible to receive a pre-designated amount of project funds every year, but must make a feasible project proposal to acquire these funds. Importantly, only 10 percent of ANICT is funded through the national Malian government while the remaining 90 percent of funds come from external sources. In 2006, ANICT funds made up more than half of the average commune government budget whereas locally-generated funds comprised only 15 percent, according to a UN-administered commune-level survey. While local government capacity remains a problem, the support of ANICT provides commune governments with resources to provide significant public goods—enough to induce variation across communes that can be attributed, in part, to local government performance.

The theoretical predictions in the previous section suggest that the effects of information on democratic performance are contingent on underlying expectations of voters: information should have greater effects where expectations are particularly low. Qualitative evidence suggests that voters in Mali have low expectations of local democratic governance. According to the 2003 Afrobarometer survey, 72 percent of people said they would contact a customary or religious local leader for help in resolving a problem while only 26 percent of people said they would contact an elected member of the commune council. Another indication of low expectations among rural or uneducated populations is the satisfaction with government performance among different groups. Two-thirds of uneducated people say they are satisfied with the government while two-thirds of highly educated people say they are dissatisfied with government performance. It is unlikely that this is a result of preferential treatment of uneducated populations by the government and more likely a result of higher expectations among the educated. Moehler (2008) finds a similar phenomenon in Uganda where democratic citizens become more distrusting of government the more they learn about and participate in the political system.
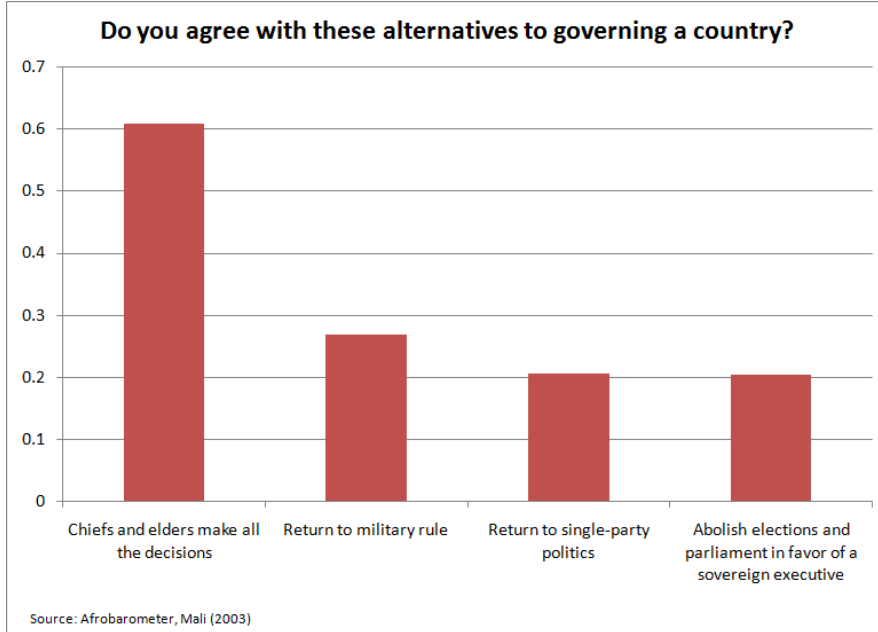
One explanation of low voter expectations is the failure of rural populations to update their expectations of government after decades of coercive rule. In

peripheral areas, there are few observable differences between former regimes and the current one, in part, because the state has limited capacity to extend its reach. During the colonial era, local chiefs were appointed to extract taxes from rural farmers, fishermen, and pastoralists. Rural populations received little in return for their taxes, but they paid to avoid violent retribution. The post-independence authoritarian governments continued the practice of tax extraction with little change in the process at the local level: government-appointed prefects in the arrondissements, the local territorial unit predating the commune, collaborated with the same chiefs to garner taxes. Today, the democratically-elected commune councils continue to tax in much the same way, perhaps using less force, but relying upon the same institutionalized process. The village chief collects household taxes from members of the village and then hands them over to a higher authority–in this case the mayor rather than the prefect. Prior to decentralization, the chief had no expectation that some of those taxes would return to his village in the form of public goods. Among 12 village chiefs from three different regions interviewed during a field study in December 2008, none said that they expected their taxes to be returned to their village in the form of goods and services. Furthermore, there was no evidence of willingness on the part of the village chief to withhold votes for a certain candidate or to withhold taxes if local politicians failed to deliver critical public services or keep campaign promises. Some chiefs even failed to perceive a difference between the current locally elected mayor and the state-appointed sub-prefects of the past.

If democratic leaders gave voters a reason to update expectations, perhaps they would. However, survey evidence calls into question whether voters perceive positive changes since the onset of democracy. The 2003 Afrobarometer surveys found that Malians, on average, prefer their traditional leaders to the elected government government. While about 26 percent of the representative sample of respondents said they would go to the commune council to solve a problem, 72 percent said they would go to their customary or religious local leader instead. Figure 1 shows there are a surprising number of respondents who would prefer different governance alternatives to the current democracy. Local democracy did not fare better than federal democracy. In rural areas, just as many people said they would prefer communes to be governed by the central authority than for communes to be self-governing.

When voters have low expectations of elected officials, then what explains voter behavior? Those voters who do not expect governments to act in the public interest will not vote based on perceived government performance. There

Figure 1: Low expectations of democratic government

Do you agree with these alternatives to governing a country?

Source: Afrobarometer, Mali (2003)

is anecdotal evidence that voters are making decisions based on other dimensions than performance. In interviews with village chiefs and other villagers, answers to how individuals chose their preferred candidate consisted of the following: I randomly selected, I voted based on who my family voted for, I voted for the person that seemed nicest, and I voted based on who gave me the most money on the day of the election. Indeed, vote-buying is an important phenomenon in Mali as it is in many developing democracies. Afrobarometer reports that 80 percent of Malian voters said politicians often or always engaged in vote-buying during elections. Further research with more representative sampling is necessary to determine the generalizability of the other responses.

The qualitative evidence of low voter expectations in Mali motivates the prediction that information will have an important effect on public goods provision. When expectations are low, information about government capacity and responsibility can lead voters to evaluate their elected leaders differently. With more information, voters are more likely to exert control over politicians, sanctioning them for failing to meet expectations. In contexts where voters have more appropriate expectations of elected officials, increasing access to information will not necessarily have the same predicted effects.
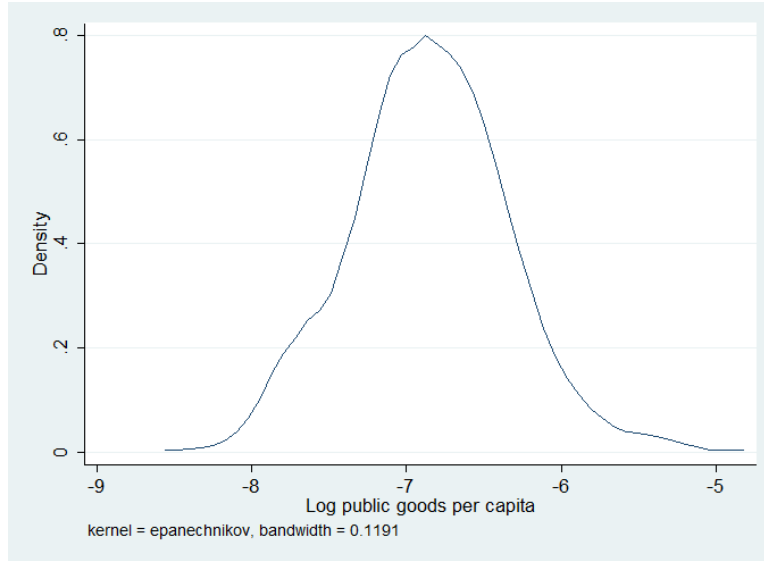
12

4 Data

The primary dataset providing commune-level observations in Mali is from a survey funded by the United Nation's Observatoire du Développement Humain Durable (ODHD) and carried out in conjunction with the Malian Ministry of Social Development. Completed in 2006, the purpose of the survey was to develop a poverty index to compare social and economic development across local decentralized units or communes following the decentralization policy of 1996. With these data, I construct a dependent variable that proxies for electoral control: local public goods provision. If we assume that voters want more local public goods than politicians, either because politicians prefer to privately consume the budget for public goods or because they do not want to incur the costs of providing public goods, then marginal increases in public goods provision reflect improved voter control over local politicians.

I restrict observations to rural communes because the political and social dynamics in urban communes are different, not only in degree but in nature, than those dynamics in rural communes. Because 95 percent of Mali's communes are rural, little explanatory value is lost by restricting our observations in this way. Whether a commune is considered rural or urban is based on an administrative decision during the implementation of decentralization in 1996 and stated in Law N°96-059 on the creation of communes. It is unclear what exact criteria were used to distinguish rural from urban communes, but urban communes are on average more populous, wealthier, more highly educated and have better infrastructure than rural communes. And importantly for this analysis, there is far more political competition and information dissemination in urban communes than rural ones.

Local public goods are measured using a composite indicator of health and education. With the implementation of decentralization, local governments became responsible for providing primary schooling and primary health care while higher levels of government continued to fund secondary schools and hospitals. Among the ANICT-funded development projects in communes, more than half are in the area of health and education. Another commonly-funded project category, local government infrastructure, is not included in the measure because such projects are not as clearly serving the public interest. The measure of local public goods provision is constructed by adding the number of primary schools per commune to the total number of primary health care staff in the commune

Figure 2: Distribution of dependent variable: logged local public goods per capita

kernel = epanechnikov, bandwidth = 0.1191

including doctors, midwives, nurses and health assistants[7]. Measuring health care provision in this way attempts to overcome some of the weaknesses in data collection. The types of primary health care facilities are labeled differently across communes, i.e. maternities vs. clinics vs. dispensaries, so summing over primary health care staff diminishes some of the anticipated measurement error from using any one type of health care facility. The mean number of primary schools per commune is 9 and the mean number of total health staff is 6, though there is considerable variation across communes with standard deviations of 8 and 6, respectively. Total public goods are divided by commune population to provide a measure of local public goods per capita. Because the distribution of public goods per capita is positively skewed, I log the data to create a more normally distributed dependent variable (see Figure 2) with a mean of -6.9 and a standard deviation of 0.51.

The independent variables of interest, information and political competition, are measured using data from the 2006 ODHD survey and from the 2004 municipal elections obtained from the Ministry of Territorial Administration in Bamako. Access to information is measured by the existence of a local radio
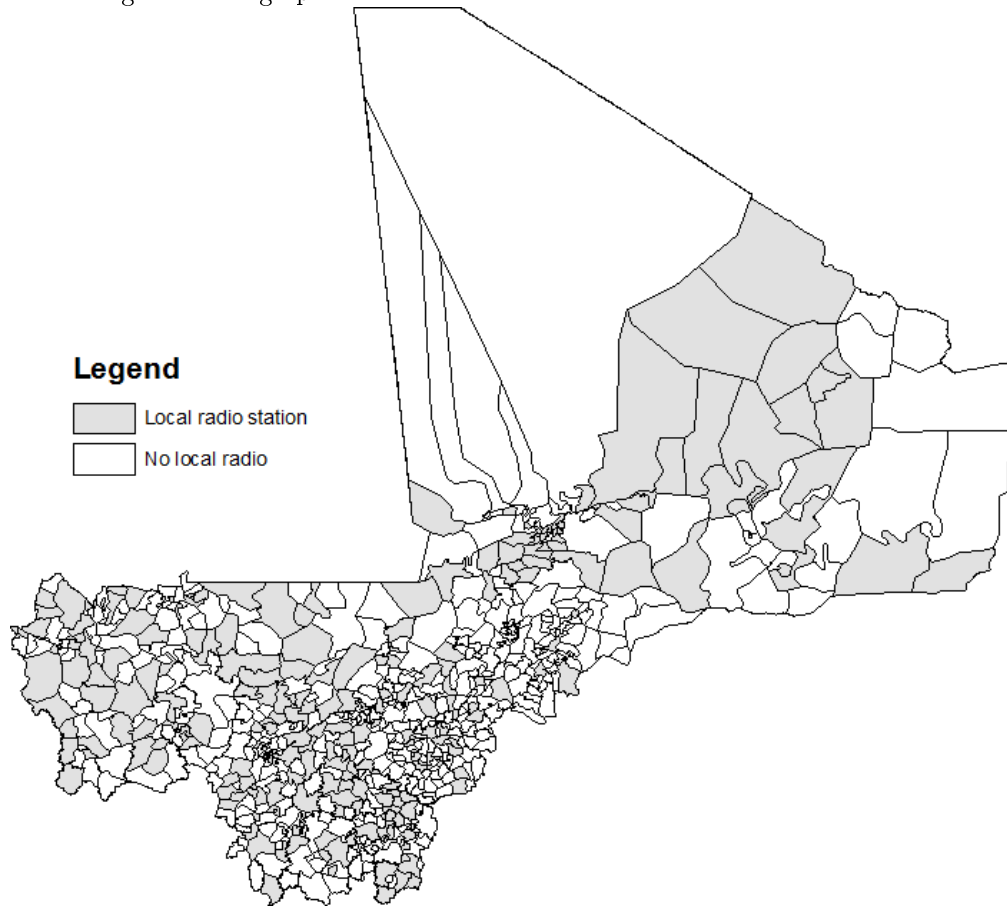
---

[7]The indicators for health staff and primary schools are positively and significantly correlated at 0.61. All the cross-commune results hold if each individual indicator is used as the dependent variable rather than the composite indicator.

station in the commune. Having a local radio station is a more appropriate measure than radio coverage for the purposes of this study. While radio coverage implies access to information, the existence of a local radio station implies that listeners will have access to information particular to their own commune. Information about government and politics will be more salient to voter behavior in municipal affairs if broadcast via local rather than national radio. National radio may help educate voters more broadly about the national decentralization effort, but this is less likely to change the expectations of voters or behavior of local candidates. A study by USAID of a non-representative sample of local stations in Mali reports that content can be quite relevant to political behavior. Not only do stations report on local government activity, but some provide opportunities for local administrators to discuss development programs while others provide a forum for listeners to voice community concerns. In a few cases, these radio programs resulted in improved financial contributions to public goods by citizens and improved management of public goods provision by local governments.

Radio is clearly the most important channel of information dissemination in rural Mali, eclipsing television and newspapers. According to the 2006 Demographic and Health Survey in Mali, 70 percent of rural households say they have a radio. Seventy-five percent of men and 60 percent of women in households interviewed say they listen to radio at least once a week while only 26 percent of these women say they watch television and only 2 percent say they read newspapers at least once a week. Figure 3 shows the geographic distribution of local radio stations across Mali's communes. The independent variable measuring access to information is simply a binary indicator of whether there is a local radio station in the commune. Twenty-three percent of rural communes report having local radio stations.

Political competition is measured first by *Number of parties* that ran candidates in the 2004 municipal election. An average of over 5 parties present lists for candidates on the commune council, though the variable ranges from 1 to 19. About 88 percent of parties that present candidates succeed in obtaining at least one seat on the council. A second measure, *Party competition*, serves as an additional indicator of electoral competitiveness, but also reflects internal council dynamics. Because the mayor is elected indirectly by the commune councilors, party competition refers to councilmember elections rather than mayoral elections. However, the party with the largest share of votes has important influence in mayoral selection. Data shows that mayors do not always belong to the party

Figure 3: Geographic distribution of local radio stations in Mali

Legend

Local radio station

No local radio

with the largest seat share on the council, but this is explained by the fact that strong parties often ally with weak ones to ensure that mayoral seats do not fall into the hands of strong opposition parties. Party competition is constructed using a Herfindahl index that sums the squares of council seats shares won by each party in the commune council. Traditionally used to measure competitiveness among firms in the market, a higher value of the index indicates lower competitiveness. A higher index can also be interpreted as higher concentration or lower competition among parties on the council as it implies fewer parties with larger seat shares as opposed to more numerous parties with smaller seat shares. Party competition is measured by $1 - Herfindahl index$ such that a higher value of the indicator reflects more competitiveness.

While theory predicts that information and competition should explain some variation in local public goods provision across communes, other commune features may influence both levels of the independent and dependent variables that, if not accounted for, could generate omitted variable bias. In particular, the level of economic development in a commune could reasonably correlate with the existence of a radio station and levels of party competition as well as have a positive impact on public goods provision. Communes that are wealthier have higher tax revenue and communes that are more developed have a higher capacity to supply public goods. I will control for various indicators of commune development that could contribute to omitted variable bias. Roads should correlate positively with party competition, as they provide parties easier access to the commune, and radio, as NGOs are partly responsible for developing local radio stations and prefer more accessible communes. More public goods should also be provided in places with better roads which facilitate mobility of health staff, teachers, and materials. Markets should also improve public goods provision through higher tax revenue and access to goods and services. Parties will prefer to compete in communes with markets because they generate more benefits to holding office and they can make campaigning easier. Access to electricity and telecommunication should also correlate with radio and competition as well as facilitate public goods provision.

The control variables in the following estimations are thus four indicators of commune development and population size. Population size is important to control for because public goods are supplied at the unit of the commune and not on a per person basis. Therefore, smaller communes will tend to have more goods per person than larger communes which would create an artificial bias if not taken into account. Commune population ranges from 2,000 to 63,000

with a mean of 13,000. The variable, *Population*, logs the data. *Electricity* is a categorical variable that takes the value of the number of different sources of electricity found in the commune. These sources include state-provided electricity, privately-supplied generators, solar panels, and multifunctional platforms (diesel motors). The measure ranges from 0 to 3 with about a third of communes having no source of electricity. The variable for *Roads* is a binary indicator of whether there are dirt roads in the commune. So few communes have paved roads that there is not enough interesting variation to exploit. However, about 56 percent of rural communes report having some dirt roads. Road density would be misleading as communes vary greatly in size and many vast communes are sparsely populated, so low road density could either be an indicator of few roads or population in concentrated in only a few areas. *Phones* is a categorical variable that takes the value of the number of major phone networks providing coverage to the commune. It also ranges from 0 to 3, and about half of communes have no phone coverage. The measure for markets is the number of localities in the commune with weekly outdoor markets. The variable *Markets* ranges from 0 to 9 with a mode of 1. Only 101 communes have no weekly market.

5 Determinants of voter control of politicians

5.1 Radio, number of parties and party competition

First, I examine the direction of the relationships between the independent variables of interest, information and party competition and local public goods provision. A simple linear regression estimates the correlation between radio r and number of parties n in commune i and public goods provision pg_i, holding population size p_i, electricity e_i, dirt roads d_i, phone h_i and market m_i constant. Model 1 includes regional fixed effects α_i for the 8 non-urban regions:

$$pg_i = \beta_0 + \beta_1 r_i + \beta_2 n_i + \beta_3 p_i + \beta_4 d_i + \beta_5 h_i + \beta_6 m_i + \alpha_i + \varepsilon_i$$

Models 3 and 4 substitute party competition for number of parties. Models 2 and 4 include fixed effects at the *cercle* level instead of the region. Cercles are an administrative division between the region and the commune, similar to counties. There are a total of 50 cercles. For all models, the dependent variable is the logged measure of local public goods per capita. The results are presented

in Table 1.

Table 1: Effect of radio and party competition on public goods per capita

Variable	Coefficient			
	(Standard Error)			
	M1	M2	M3	M4
Local radio	0.16***	0.15***	0.17***	0.17***
	(0.036)	(0.037)	(0.037)	(0.037)
Number of parties	0.05***	0.04***		
	(0.007)	(0.008)		
Party competition			0.31***	0.19*
			(0.100)	(0.102)
Population (logged)	-0.38***	-0.40***	-0.36***	-0.37***
	(0.031)	(0.031)	(0.032)	(0.031)
Electricity	0.06**	0.05**	0.06***	0.05**
	(0.024)	(0.025)	(0.024)	(0.025)
Roads	0.08**	0.05	0.08**	0.06
	(0.035)	(0.035)	(0.036)	(0.036)
Phone coverage	0.08***	0.09***	0.10***	0.11***
	(0.019)	(0.019)	(0.019)	(0.020)
Markets	0.06***	0.05***	0.06***	0.05***
	(0.010)	(0.010)	(0.010)	(0.010)
Intercept	-3.87***	-3.67***	-4.07***	-3.86***
	(0.267)	(0.267)	(0.272)	(0.271)
Regional fixed effects	Y	N	Y	N
Cercle fixed effects	N	Y	N	Y
N	661	661	661	661
R^2	0.23	0.25	0.19	0.21

Significance levels: * $p<0.10$, ** $p<0.05$, *** $p<0.01$

These results are consistent with the theoretical expectations, though a causal effect cannot be rigorously identified. Radio is positively and significantly correlated with public goods provision holding constant a number of indicators of commune development. This finding is robust to adding regional and cercle fixed effects and the coefficient can be interpreted as the existence of a local radio station being associated with about a 20 percent increase in local public goods provision. Fixed effects help diminish the problem of omitted variable bias by ruling out unobserved heterogeneity in the data that is constant across regions or cercles. However, we cannot rule out heterogeneity that varies across regions.

Number of parties is positively and significantly correlated with public goods provision in both models and can be interpreted as the addition of one party

running candidates in a municipal election is associated with a 4 to 5 percent increase in public goods provision in the commune. Party competition is also positive and significant with a 0.1 increase associated with a 2 to 3 percent increase in public goods provision. Unsurprisingly, all development measures are positively and significantly correlated with public goods provision, though roads loses significance when cercle fixed effects are included. As expected, population size is negatively correlated with public goods. This can be explained by the fact that public goods are provided on a per district rather than per person basis, so larger communes should provide fewer public goods per capita than smaller ones.

5.2 Robustness check on information effects: nearest neighbor matching

In this section, I use matching estimation to provide another estimate of the relationship between radio and public goods provision. Because radio is a binary variable, it can be considered as a treatment condition. I match communes on observable indicators of development and check whether local public goods provision in two otherwise similar communes is higher in the one with the treatment, a local radio station. Using nearest neighbor matching, I estimate the average treatment effect of radio on public goods provision. The five control variables used in the previous regression are used here as the matching variables. Because they are alike in ways that are observable but dissimilar in that they did not receive the treatment, communes without radio provide a counterfactual outcome to the effect of radio on public goods provision.

In the matching estimation, I pair observations in communes with radio stations to the closest matches in the subset of communes without radio. Table 2 reports the results. Irrespective of how many matches I choose (1 to 3), the resulting average treatment effect is large and significant at <0.01. Though the magnitude of the sample average treatment effect increases with the number of matches used, there is a tradeoff. More matches used in the estimation yield a greater the distance between each obesrvation and its matched counterfactual observations and the worse balance on the covariates as shown below.

Because I match on population size, I use the simple measure of local public goods provision rather than public goods per capita as the dependent variable. The magnitude of the sample average treatment effect ranges from 3.5 to 4.1 depending on the number of matches used. The mean value of local public

goods across all communes is 15 with a standard deviation of 13. Using nearest neighbor matching, the treatment effect of radio on public goods is one-fourth to one-third of one standard deviation – a sizable effect. This finding is comparable to the OLS regression results in Table 1. In that estimation, the coefficient on the indicator variable for radio is about 0.17, exactly one-third of one standard deviation of the dependent variable, logged public goods per capita.

Table 2 also reports the balance on the covariates in each of the estimations. We see that there is no significant difference between the matching variables in the first estimation and population is the only variable that is significantly different when matching with two or three observations. While the treatment effect increases in magnitude the more matches are used, the effect remains very significant with only one matched observation. Finally, Table 2 reports a measure of distance between the primary observations and their matches. As expected, distance increases with the addition of more matches.

It is not surprising that we get similar results using linear regression and matching because they are doing much the same thing. One advantage of matching is that it does not assume linearity in the relationship between variables. But while matching can sometimes help overcome some of the bias that regression analysis is subject to, it still does not strictly identify causal effects. Reverse causality is a concern in this case because it is reasonable to believe that communes with more primary schools and better health care would be more likely to set up local radio stations. One claim helps rule out this possibility, though not entirely. Because of the expense of setting up and maintaining a radio station, outside NGOs are often involved in the development of local radio stations. There is no reason to believe that NGOs would choose communes with better health and education to do this, in fact, they would most likely target the opposite–poorer and more underdeveloped communes.

5.3 Conditional effects of party competition

One reason that party competition is predicted to have a positive effect on local public goods provision is because, like number of parties, it is a determinant of voter control over politicians. Higher party competition means that each party is more uncertain of its chances for reelction and thus value their current position more highly. Higher valuation of the position makes politicians more easily controlled, and voter preferences for higher public goods provision will more likely manifest.

Table 2: Effect of radio on public goods with nearest neighbor matching

#	SATE	Distance	Balance (treatment - control)				
			Pop.	Elec.	Roads	Phone	Market
1	3.522***	0.387	0.032	-0.005	0.003	-0.002	-0.071
	(0.921)	(0.024)	(0.035)	(0.041)	(0.027)	(0.050)	(0.100)
2	3.980***	0.540	0.042*	-0.007	0.003	-0.007	-0.035
	(0.856)	(0.020)	(0.025)	(0.029)	(0.019)	(0.035)	(0.070)
3	4.092***	0.676	0.039*	-0.012	0.002	0.003	-0.042
	(0.826)	(0.018)	(0.020)	(0.023)	(0.016)	(0.028)	(0.057)

Dependent variable: Public goods in commune (health staff + primary schools)
Treatment condition: Existence of local radio
Matching variables: Population size, Electricity, Roads, Phone, Markets
Significance levels: * $p<0.10$, ** $p<0.05$, *** $p<0.01$; standard errors in parentheses

However, another reason party competition may have a positive effect on public goods provision is its potential role in reducing collusion. Consider the indicator of party competition as instead describing intra-council dynamics. If parties on the council are more evenly matched, it will be more difficult for them to strike a collusive bargain in which they consume political revenue at the expense of the local voters. In the absence of information, voter expectations will be low and parties on the council can more easily steal from the public coffers or simply fail to provide public goods without fear of voter sacntions. However, access to information allows parties that are unhappy with their share of the pie to threaten each other with voter sanctioning. So in order to engage in corrupt activities without sanctions from the public, the parties on the council must cooperate. This logic suggests that the accountability mechanism of intra-council party competition should only work in places with a certain level of access to information.

To test whether this might be the case, I evaluate the impact of party competition first in communes without local radio stations and then in communes with a local radio station. Results are presented in Table 3. In the first two models, I include regional fixed effects while in the second two models, cercle fixed effects are used. Models 1 and 3 run the regression in communes without radio and models 2 and 4 with radio.

The results show that the marginal impact of party competition on public goods provision is indeed conditional on access to information. In both fixed effects models, the coefficient on party competition is small and insignificant when the analysis is run in the 439 communes without local radio stations. The coefficient becomes large and very significant when the model is run in the 222

Table 3: Effect of competition conditional on radio

Variable	Coefficient			
	(Standard Error)			
	M1	M2	M3	M4
Party competition	0.15	0.61***	0.06	0.58**
	(0.118)	(0.188)	(0.119)	(0.232)
Population (logged)	-0.38***	-0.31***	-0.39***	-0.34***
	(0.038)	(0.058)	(0.038)	(0.066)
Electricity	0.07**	0.01	0.05	0.01
	(0.030)	(0.042)	(0.031)	(0.052)
Roads	0.07*	0.07	0.05	0.01
	(0.042)	(0.066)	(0.043)	(0.073)
Phone coverage	0.06***	0.15***	0.07***	0.14***
	(0.023)	(0.034)	(0.024)	(0.040)
Markets	0.07***	0.04**	0.05***	0.02
	(0.013)	(0.018)	(0.012)	(0.023)
Intercept	-3.80***	-4.45***	-3.57***	-4.06***
	(0.332)	(0.500)	(0.330)	(0.561)
Local radio station?	No	Yes	No	Yes
Regional fixed effects	Y	Y	N	N
Cercle fixed effects	N	N	Y	Y
N	439	222	439	222
R^2	0.20	0.18	0.23	0.16

Significance levels: * p<0.10, ** p<0.05, *** p<0.01

communes with a local radio station. The magnitude of the impact is more than twice as big as before when the analysis was carried out in all communes.

5.4 Robustness check on conditional effects: interactions with covariates

To test whether the finding that party competition is conditional on radio coverage is correctly interpreted as an information effect rather than a broader modernization effect, I run models with interaction terms between party competition and other covariates. Table 2 shows that party competition only has a significant positive effect on public goods outcomes in places where there is a local radio station. The hypothesized explanation is that radio facilitates the spread of information, raising voter expectations and making competition between parties salient. However, an alternative explanation is that radio is proxying for modernization of the commune, and we should instead interpret the finding to mean that party competition is conditional on social or economic development more broadly. This is plausible if we think that parties in a more developed commune will engage in more meaningful competition. To help adjudicate between these two potential interpretations, I interact the party competition variable with each independent variable, including radio. The findings are presented in the five models in Table 4, all of which include region-level fixed effects.

The findings from Table 4 suggest that the conditional relationship between party competition and radio coverage is produced by an information effect rather than a modernization effect. The coefficients on the interaction terms with radio, roads, and phone coverage are positive and significant while the coefficients on the interaction terms with electricity and markets are small and insignificant. Of the five variables, radio, roads and phones are better indicators of the capacity to spread information. While radio is the variable most closely related to the production of information, roads and phones are means of communicating information over sparsely populated or disconnected territory. Conversely, electricity and markets are better proxies for economic development than for information transmission.

Table 4: Effect of competition conditional on covariates

Variable	Coefficient				
	(Standard Error)				
	M1	M2	M3	M4	M5
Party competition	0.20*	0.09	0.21*	0.28*	0.32**
	(0.117)	(0.141)	(0.117)	(0.153)	(0.145)
Population (logged)	-0.36***	-0.36***	-0.36***	-0.36***	-0.36***
	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)
Local radio	-0.04	0.17***	0.17***	0.17***	0.17***
	(0.119)	(0.037)	(0.037)	(0.037)	(0.037)
Roads	0.08**	-0.16	0.08**	0.08**	0.08**
	(0.036)	(0.115)	(0.035)	(0.036)	(0.036)
Phone coverage	0.09***	0.10***	-0.02	0.10***	0.10***
	(0.019)	(0.019)	(0.071)	(0.019)	(0.019)
Markets	0.06***	0.06***	0.06***	0.06***	0.06
	(0.010)	(0.010)	(0.010)	(0.010)	(0.040)
Intercept	-3.96***	-3.92***	-3.97***	-4.04***	-4.07***
	(0.277)	(0.279)	(0.277)	(0.283)	(0.281)
Competition x Radio	0.36*				
	(0.189)				
Competition x Roads		0.41**			
		(0.184)			
Competition x Phone			0.19*		
			(0.107)		
Competition x Electricity				0.04	
				(0.126)	
Competition x Markets					-0.00
					(0.060)
Regional fixed effects	Y	Y	Y	Y	Y
N	661.00	661.00	661.00	661.00	661.00
R^2	0.20	0.20	0.20	0.19	0.19

Significance levels: * $p<0.10$, ** $p<0.05$, *** $p<0.01$

6 Do opposition parties undermine collusion? A regression discontinuity design

To test the hypothesis that commune councils in which there is a strong out-of-office party will be better disciplined than commune councils where all candidate parties are represented, I employ a regression discontinuity design. I examine the differences in public goods provision between communes in which there is a party that ran but did not make it on the council and communes in which all parties that ran won seats. Running this test without further specifications would risk making unfounded inference about the effect of losing parties. There is likely some unique unobserved characteristic of those communes in which all parties that run win seats, making these communes incomparable to communes in which at least one party gained no seats. For example, the communes in which there were no parties without seats may be less remote and thus better connected to the national party and so able to mobilize more funds for electoral campaigns. To minimize this omitted variable bias, I use a regression discontinuity design which allows me to exploit the randomness that occurs within a narrow bandwidth on either side of the discontinuity.

The discontinuity in the design occurs at the threshold that determines whether a party gains a seat in the commune council. In Malian municipal elections, this threshold is the Hare quota, the total votes received divided by the number of available seats. The number of seats each party receives is determined by a proportional representation formula based on the largest-remainder method. Seats are first distributed to parties that exceed the threshold with the number of seats corresponding to the multiple of the quota of votes received. Then, remaining seats are distributed to those parties with the greatest remainder of votes. Because the vote count and total seat number differs across communes, so too does the Hare quota. I thus normalize the evaluation of how close a party got to the threshold by dividing the difference between received votes and the Hare quota by total clean votes in the commune election.
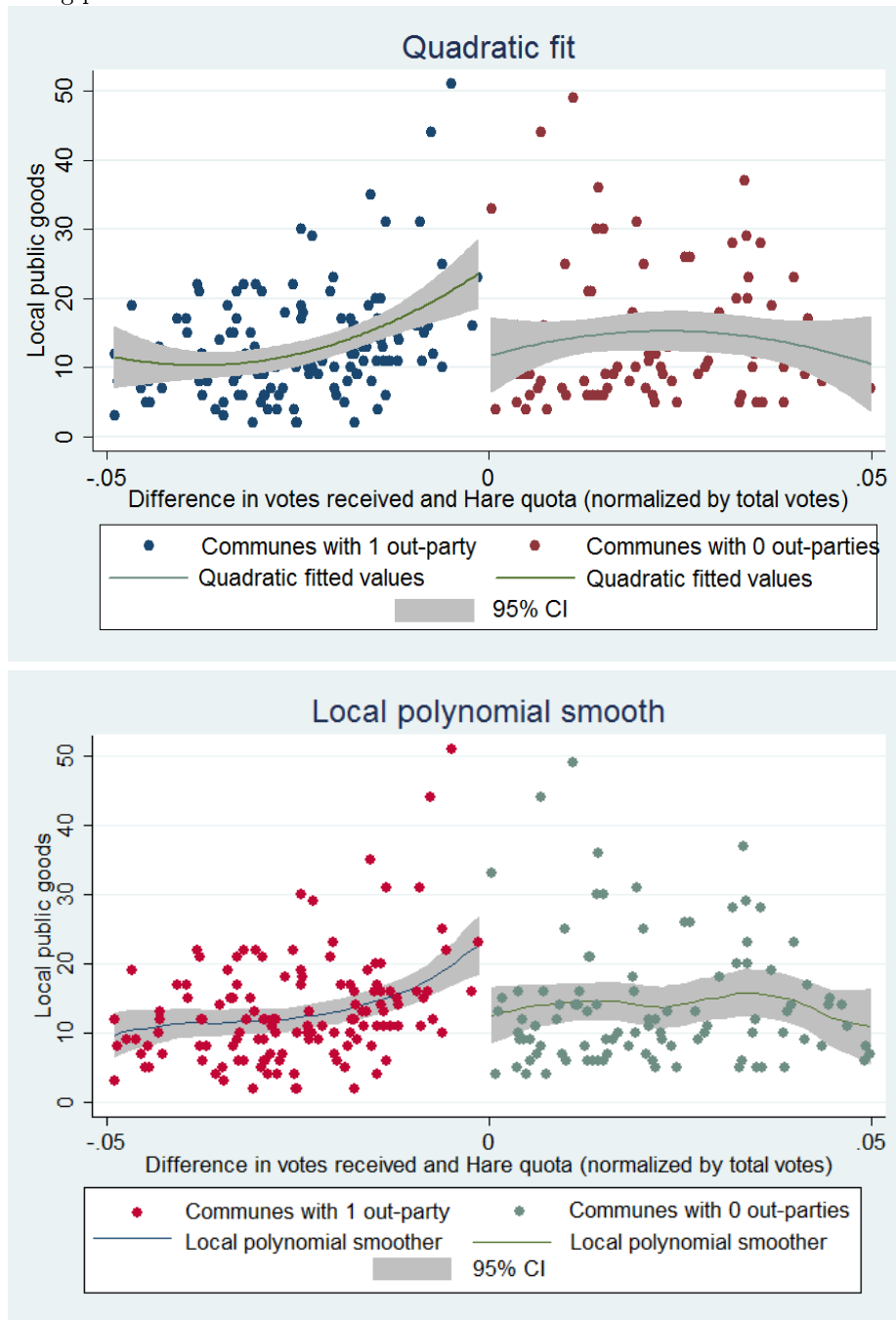
The hypothesis predicts that the existence of at least one losing party will change the dynamic by which public goods are distributed. While we could consider communes in which there are more than one losing party, those communes in which there is only one losing party will look most similar to communes in which there are no losing parties. As such, the following analysis compares communes in which only one party got zero seats against those in which at least one

party got one seat and no parties got zero seats. This analysis is made possible by the assumption that the effect is invariant to which party is left out of the commune council. Such an assumption is credible for three reasons: the local manifestation of a national party in one commune may look quite different than the same party in a different commune, parties have very little that distinguish them in terms of ideology or platform, and the current president does not belong to any party – he is an independent that won with a coalition of a lot of parties, so there is no party that is currently considered the opposition party. Instead, the theory rests on whether there is any out-group of elites that have incentives to undermine the coalition in power, irrespective of which group is left out.

Comparing communes in which one party just lost by a small vote share against those in which one party gained one seat by a similarly small vote share minimizes unobservable differences in the two types of communes. The intuition is that some randomness governs whether a party received a marginally higher or lower share of the votes in any election, minimizing selection bias within close range of either side of the discontinuity. Lee (2008) formally shows that treatment status "is as good as randomized" in a local neighborhood of the threshold. Here, the treatment can be considered having one party that wins zero seats, with the predicted effect of increasing public goods provision.

Figure 4 plots the dependent variable of local public goods on the y-axis and the normalized difference between the votes received and the Hare quota on the x-axis with the discontinuity occurring at zero. Recall that local public goods are measured by adding the number of primary schools and health staff in each commune so each unit can be considered an additional unit of local public goods. The first graph in the figure fits a line through the data using a quadratic model while the second fits a local polynomial in each bin of bandwidth .005. A 95 percent confidence interval is constructed around each fitted line. The observations to the left of zero are those communes in which one party ran and gained no seats. The observations to the right of zero are those communes in which at least one party ran and gained one seat and no parties that ran gained zero seats. If there were multiple parties that gained one seat, I measure the independent variable using the party that received the least number of votes. In sum, those parties that won or lost by a higher margin will be further away from the discontinuity. There were twenty observations in the data in which the calculation of seats won did not abide by the formula, i.e. a party that surpassed the threshold gained zero seats or a party that did not reach the threshold gained a seat. These are excluded from the analysis because of a

Figure 4: Comparing public goods in communes with one losing party vs. no losing parties

lack of information about why these communes broke the electoral rules which prevents any prediction about which way it would bias the outcome.

Figure 4 graphically demonstrates the difference in the dependent variable between communes falling on either side of the threshold. The vertical gap between the confidence bands on either side of the discontinuity lend support to the idea that there is an identified impact of out-parties on local public goods provision. Furthermore, at the left and right edges of the graphs, the levels of public goods provision converge. This is also consistent with the hypothesized mechanism because out-parties will only succeed in undermining collusion among councilmembers if they provide a credible threat. As such, weaker parties or parties that lose by a larger margin will not credibly threaten councilmembers and so we should not expect to see a difference in public goods provision in their commune.

Table 4 exhibits a further test of the significance of this difference. I run two-sample t-test comparing means of the dependent variable on either side of the discontinuity. I do this for 3 different bandwidths of data (0.05, 0.1, and 0.2) and then repeat the analysis for four key covariates that have been shown to have a significant effect on the dependent variable. This analysis exhibits a pattern that confirms our hypothesis. The difference in means of the public goods variable becomes increasingly significant as the bandwidth narrows. This indicates that as we are more confident that the observations on either side of the discontinuity can be considered randomly selected, we see a greater effect of the treatment on the outcome of interest. In contrast, we find that as the bandwidth narrows, the difference in means of the covariates become less significant.

These patterns can be seen by looking at both the t-value from the t-test as well as the result of the Kolmogorov-Smirnov test. The t-value shows that with greater confidence as we move from larger to smaller bandwidths, we are able to reject the null hypothesis that the means are the same for the dependent variable and the opposite is largely true for the covariates. Furthermore, the difference in means of the dependent variable is in the predicted direction with communes that have a losing party exhibiting higher rates of public goods provision than those communes in which there is no losing party. The K-S test allows us to determine whether the data in each sample are being drawn from the same or different distributions. For the dependent variable of logged public goods per capita, we are increasingly able to reject the hypothesis that the data are from the same distribution as the bandwidth narrows. The opposite is largely true for the covariates: as the bandwidth narrows, it is increasingly difficult to reject

Table 4: Impact of discontinuity on public goods provision and other covariates, using different bandwidths

Variable	|Margin| < 0.2				|Margin| < 0.1				|Margin| < 0.05			
	1 out-party	0 out-parties	Diff in means	K-S test	1 out-party	0 out-parties	Diff in means	K-S test	1 out-party	0 out-parties	Diff in means	K-S test
Local public goods	13.123 (0.735)	13.360 (0.843)	-0.237 [-0.21]	0.717	13.735 (0.839)	14.062 (0.935)	-0.327 [-0.257]	0.621	16.716 (1.464)	13.607 (1.250)	3.110 [1.60]	0.030
Wealth index	-0.214 (0.036)	-0.178 (0.041)	-0.036 [-0.65]	0.562	-0.170 (0.042)	-0.147 (0.045)	-0.023 [-0.37]	0.628	-0.079 (0.066)	-0.169 (0.060)	0.090 [1.00]	0.542
Remoteness	5.09 (0.192)	4.61 (0.186)	0.485 [1.74]	0.127	4.99 (0.211)	4.57 (0.188)	0.421 [1.42]	0.130	4.89 (0.332)	4.93 (0.249)	-0.035 [-0.08]	0.562
Voter turnout	0.498 (0.008)	0.473 (0.010)	0.025 [2.04]	0.061	0.496 (0.008)	0.473 (0.011)	0.023 [1.72]	0.132	0.482 (0.011)	0.485 (0.015)	-0.003 [-0.15]	0.531
Population	12.3 (0.532)	14.1 (0.745)	-1.83 [2.06]	0.058	12.9 (0.592)	14.9 (0.804)	-2.01 [2.05]	0.091	14.6 (0.918)	14.0 (0.974)	0.519 [0.39]	0.711
N	169	114			140	100			69	63		

Standard errors in parentheses, t-values in brackets

the null hypothesis that the data are from two different distributions. In sum, the effect of treatment at the proposed discontinuity cannot be attributed to the impact of the covariates which are balanced on either side of the threshold. The positive effect on public goods is attributable to the treatment or the existence of one party that gains no seats in a commune election.

7   Conclusion

This paper produces evidence that local elections are indeed engendering accountability in Mali. However, it also suggests that democratic failure is likely under certain conditions. First, voters will fail to sanction public officials for bad behavior in the absence of information. Comparing otherwise similar communes, I found those with a local radio station exhibited higher public goods provision. Second, collusion is more likely when all political parties are represented on the local government council. Communes in which there was one out-of-office party exhibited higher public goods provision than those in which all parties were represented on the council. And, public goods provided in the first type of commune is increasing with out-party strength. While I find a positive relationship between party competition and public goods provision, this effect is conditional on the presence of information. Party competition had a large and significant effect on public goods provision only in communes with a local radio station.

These findings suggest that there is no quick-fix to improving government accountability. Both well-informed voters and meaningful party competition are critical for democracy to produce public policies in the interest of voters. This helps explain ambiguity in the cross-country data regarding the effect of democracy on public goods provision. If the effect is conditional, the relationship should hold in some settings but not others. My results suggest which settings are more conducive to democratic success and which are more likely to produce democratic failure. Information is key to generating government accountability. And, while a minimum level of information is necessary for voter control to occur, meaningful party competition is also important.

This paper makes a new contribution to the research agenda on the effects of information on accountability. While it has been established that information has a positive effect on democratic outcomes in certain settings, the channels

through which information produces this effect have not been well-identified. In Mali, voters are assumed to have low expectations of government on average, and the data suggests that information can have a significant effect. This is suggestive evidence that the effect of information is working through the mechanism of increasing voter expectations. Further research is necessary to determine whether and the extent to which increasing expectations affects voter behavior, especially relative to other information strategies. Because improving voter expectations can be less costly and less contentious than improving information about government performance, such a research agenda would be fruitful for countries and development organizations interested in better democratic accountability in poor settings.

References

Almond, Gabriel A. and Sidney Verba. 1963. *The Civic Culture*. Boston: Little, Brown.

Barro, Robert J. 1973. "The control of politicians: an economic model." *Public Choice* 14 (1): 19–42.

Besley, Timothy. 2006. *Principled agents?: the political economy of good government*. New York: Oxford University Press.

Besley, Timothy and Robin Burgess. 2002. "The Political Economy of Government Responsiveness: Theory and Evidence from India." *Quarterly Journal of Economics* 117 (4): 1415–51.

Besley, Timothy and Masayuki Kudamatsu. 2006. "Health and Democracy." *Political Economy* 96 (2): 313–318.

Boix, Carles. 2001. "Democracy, Development, and the Public Sector." *American Journal of Political Science* 45 (1): 1–17.

Fearon, James. 1999. "Electoral Accountability and the Control of Politicians: Selecting Good Types versus Sanctioning Poor Performance." In Adam Przeworski, Susan C. Stokes, and Bernard Manin, (eds.) "Democracy, accountability, and representation," Cambridge: Cambridge University Press, pp. 55–97.

Fearon, James D. 2006. *Self-Enforcing Democracy*. Working Paper 14, University of California, Berkeley, Center on Institutions and Governance.

Ferejohn, John. 1986. "Incumbent performance and electoral control." *Public choice* 50 (1): 5–25.

Ferraz, Claudio and Frederico Finan. 2008. "Electoral Accountability and Corruption: Evidence from the Audits of Local Governments." IZA Discussion Paper No. 2843.

Lee, David. 2008. "Randomized experiments from non-random selection in U.S. House elections." *Journal of Econometrics* 142: 675–697.

Moehler, Devra C. 2008. *Distrusting Democrats: Outcomes of Participatory Constitution Making*. Ann Arbor: University of Michigan Press.

Myerson, Roger B. 2006. "Federalism and Incentives for Success of Democracy." *Quarterly Journal of Political Science* 1: 3–23.

Oates, Wallace E. 1999. "An Essay on Fiscal Federalism." *Journal of Economic Literature* 37 (3): 1120–1149.

Putnam, Robert D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy.* Princeton: Princeton University Press.

Riker, William H. 1953. *Democracy in the United States.* New York: Macmillan.

Ross, Michael. 2006. "Is democracy good for the poor?" *American Journal of Political Science* 50 (4): 860–874.

Schmitter, Philippe C. and Terry L. Karl. 1991. "What democracy is... and is not." *Journal of Democracy* 2 (3): 75–88.

Stasavage, David. 2005. "Democracy and Education Spending in Africa." *American Journal of Political Science* 49 (2): 343–358.