Who Gets the Goods: Locally Targeted Benefits in Weak Party Systems

Kate McKiernan

August 20, 2021

Abstract

How do politicians strategically allocate funds in the context of weak political parties? In much of the literature on clientelism, political parties play an instrumental role in selecting reliable brokers who can help translate goods into votes. However, in many democracies, political parties lack the internal capacity to build and maintain clientelist networks. When parties cannot oversee clientelist machines, national politicians will use their personal relationships with local politicians to determine where to provide local goods, like pork or club goods. I argue that regardless of the political party in office, national politicians are more likely to target municipalities where mayors have clientelist networks in place. I test this argument in Colombia. I generate original estimates of municipal-level clientelism using a a Bayesian Mixed-Membership Model. I find that municipalities with higher levels of clientelism are likely to receive more local benefits in the form of development projects.

Word Count:

In order to reach voters, politicians often depend on political parties to help them co-ordinate their electoral strategies. Political parties can help provide resources, streamline programmatic messaging, and manage clientelist machines. However, in much of the developing world, political parties lack the capacity to coordinate party-wide electoral strategies. Limited resources make it difficult for parties to help politicians reach the voters they need to target. Moreover, in many developing democracies, a large proportion of citizens are non-partisan. Politicians, therefore, need to find strategies to reach citizens that do not depend on an institutionalized political party machine.

Although the challenges that parties face are far-reaching, most of our understanding of how politicians target voters assumes that these politicians have the support and guidance of a political party. When politicians appeal to voters using clientelism, or the targeted exchange of benefits for political gain, the party machine is responsible for recruiting loyal brokers capable of delivering votes. Our dependence on party-driven theories limits our understanding of exactly *how, when*, and *where* politicians choose to use targeted goods. How do politicians who cannot rely on a party machine make decisions about when and where to use clientelist appeals to reach voters? What type of clientelist appeal is most feasible in this context? Who do independent politicians work with?

I propose a theory to explain how politicians in weak party contexts determine which municipalities receive additional benefits in the form of locally targeted goods. I argue that when politicians cannot rely on political parties to help them select brokers, they will use alternative brokers to help them distribute benefits. I define locally targeted goods as any good that is designated to disproportionately benefit one group of voters nested in a single area. For example, locally targeted goods can include local public goods, pork, or club goods. While this definition is broad, it can include large projects, such as new water treatment facilities serving a limited geographic area, roads connecting remote farmers to marketplaces, or new parks. These locally-targeted goods are particularly useful because they are flexible to local needs and can increase the number of voters politicians can reach. However, in order

for these goods to encourage voters to support a national politician, the national politician needs to work with local-level brokers who can help insure that the recipients of goods are the most likely to reward the national politician. Due to their knowledge of local conditions, local-level politicians can act as effective brokers when national politicians provide club goods. I analyze the case where the local brokers are mayors.

One of the core tenets of a reliable broker is their ability to deliver votes. Thus, legislators will seek out local-level politicians because they have proven that they can mobilize voters. In order to determine which local politicians can most effectively translate local goods into votes, legislators will consider the strength of the local politician's network. One way to do this is by observing whether local politicians have built clientelist networks. A local clientelist network suggests that voters are able to be mobilized using targeted benefits. I argue that legislators are more likely to provide local goods to municipalities where the mayor has invested in building a clientelist network.

I present a novel estimation strategy to determine the prevalence of clientelism at the municipal level. I use patronage as a proxy for municipal clientelism because it is a particular type of clientelism that requires repeated interactions between voters and brokers(Oliveros 2016). To generate these estimates of patronage, I use a Bayesian Mixed-Membership Model that classifies public service hires as a combination of patronage and meritocratic hires. These estimates allow us to understand how local-level dynamics affect the provision of local goods because they highlight the variation in the use of clientelism within a single country. I estimate the relative use of clientelism at the municipal level, and I use these estimates to test the theory that municipalities where mayors have invested in building stronger clientelist networks are likely to receive more targeted goods.

I test the theory in Colombia for two reasons. First, in Colombia there are both weakly institutionalized political parties and a high number of non-partisan citizens. As a result, Colombia fits the scope conditions of where I would expect legislators to rely on local-level politicians to help them translate local goods into votes. Second, politics in Colombia

are largely non-programmatic, so many politicians depend on clientelism to help target voters. I find that municipalities with higher rates of clientelism are more likely to receive additional benefits, even after controlling for other factors that can influence discretionary fiscal transfers. This is particularly noteworthy since in Colombia, mayors cannot serve consecutive terms–an electoral rule that should reduce the payoff from iterative clientelist interactions–yet clientelism continues to be used and can help explain which municipalities receive additional resources.

1 Clientelism in Modern Democracies

Traditionally, clientelist relationships are maintained through a strict hierarchy: clientelist parties enlist brokers who distribute resources to voters in a way that helps maximize vote share (Kitschelt & Wilkinson 2007, Stokes, Dunning, Nazareno & Brusco 2013). In this framework, political parties play a central role in selecting and monitoring well-embedded and reliable brokers.

Clientelist networks are difficult to maintain for several reasons. First, the rise of the secret ballot makes it increasingly difficult for brokers to monitor the voters they target (Gingerich & Medina 2013). Second, in contexts where citizens are largely non-partisan, clientelist parties face challenges identifying brokers who will be loyal to the party machine and able to identify swing and loyal voters (Holland & Palmer-Rubin 2015). Finally, the nature of campaigns creates an incentive to use programmatic appeals that make it difficult to disentangle votes won as a result of clientelist strategies from votes that are the results of programmatic campaigns (Greene 2017, Palmer-Rubin 2018). Since political campaigns expect candidates to send messages concerning issues, there is pressure to use campaigns to signal policy rather than capacity to deliver targeted goods (Greene 2017). Furthermore, clientelism can be more difficult in decentralized contexts. This is because increases in political party fragmentation (Ryan 2004) and deinstitutionalization have made political

parties less important in coordinating candidate strategies (Dargent & Muñoz 2011, Novaes 2014).

Despite these obstacles, politicians continue to use clientelist appeals. Unlike programmatic appeals, clientelist appeals can incentivize loyal voters to turn out and can increase the visibility of a party or campaign when there are a high number of political parties (Muñoz 2014). While decentralization has created challenges for political parties building clientelist networks, the devolution of power has facilitated vote buying in smaller jurisdictions (Devarajan, Khemani & Shah 2009, Gervasoni 2010, Gingerich & Medina 2013, Khemani 2010). Low partisanship, political uncertainty, and the unintended consequences of democratic reforms have reduced the incentives for politicians to practice programmatic politics. The consequence is that, while clientelism has many drawbacks, it is an effective way to targeting individuals rather than just organized constituencies (Roberts 2002).

Even though political parties cannot control clientelist networks in much of the developing world, studies of the use of clientelism are still largely focused on clientelist parties and the linkages that parties use to target voters (Kitschelt 2000, Luna 2014). Many theories of clientelist strategies implicitly treat the party as the main driver of clientelism. For example, studies of political brokers emphasize the importance of partisan alignments for broker success (Bueno 2017, Khemani 2010, Larreguy, Montiel Olea & Querubin 2017, Stokes et al. 2013). Furthermore, even in studies focusing on low-capacity parties, clientelism is treated as a strategy that can send signals about candidate competence and viability (Muñoz 2014).

How, then, do politicians adapt their clientelist strategies for weak political party and low-partisanship environments? Some of the ways politicians have modified their strategies include changing how they provide targeted benefits. Targeting voters has become more indirect, with politicians attempting to mobilize and persuade voters through the non-enforcement of laws that directly target the poor (Holland 2015, Holland 2016) and the implementation of programmatic welfare programs that directly target low-income populations

(De La O 2013, Lucciasano & Macdonald 2012, Penfold-Becerra 2007, Zucco 2013). Moreover, politicians have changed who they select as brokers, using brokers who are embedded in interest organizations or have been selected by citizens to act as intermediaries(Auerbach & Thachil 2018, Holland & Palmer-Rubin 2015).

I build upon our understanding of party-driven clientelism and the various challenges that politicians using clientelist strategies face in order to build a theory of how local goods can be used as clientelist benefits in the context of weak political parties. Existing studies of clientelism have shown that politicians have become more creative in selecting brokers. These brokers can include individuals embedded in business or civil society organizations or entrepreneurial individuals who act outside organized groups (Holland & Palmer-Rubin 2015). Further, the literature has shown that there has been a movement towards indirect forms of targeting voters. In the next section, I explain how one particular type of independent broker, local politicians, can work with national politicians to deliver local benefits without relying on well-institutionalized party machines. I will demonstrate that a mayor's ability to mobilize voters using clientelist strategies helps explain where legislators will distribute locally targeted goods.

2   Using Locally Targeted Goods at Clientelist Benefits

The resources that legislators have access to, and the ways in which legislators choose to distribute funds, are often mediated by political parties. Since political parties have the influence to coordinate central strategies and build party brands (Lupu 2013, Lupu 2014), they can influence which types of voters are targeted and which types of benefits are likely to be effective. However, when political parties do not have the internal capacity to maintain a strong clientelist machine and cannot identify reliable brokers, national legislators need to find alternative ways to reach voters. National legislators acting outside of parties need to find a strategy that allows them to control both the allocation of the benefit and the broker

who distributes the benefit. I argue that these conditions are met when national legislators provide locally targeted goods, including pork and club goods, to particular municipalities.

Locally targeted goods are public benefits that only reach one group of voters. These benefits are distinct from general public goods because only a small subset of the population is able to benefit from access to the good. As such, these goods can encourage recipients to reward the politician who provides the good, much as they would in a clientelist exchange(Lawson & Greene 2014). Moreover, locally targeted goods are flexible and allow the politician to control what benefit is provided, the scope of voters who can be reached, and the degree to which the good is revocable. Providing locally targeted goods is a broad strategy that can be treated as a middle-ground between universal programmatic appeals and individually targeted clientelist appeals.

When providing locally-targeted goods in specific municipalities, legislators have two opportunities to emphasize the norms of quid-pro-quo exchanges. First, legislators are responsible for determining what firms and workers receive contracts to construct the infrastructure necessary for the local good. For these firms, future work is contingent on continuing to support the legislator. Second, the group of people who receive the most benefits from the local good can be enticed to continue supporting the legislator in order to continue receiving benefits. This offers two clientelist benefits: a direct benefit mirroring patronage in the hiring practices surrounding local goods and an indirect benefit of using goods provided to a community, rather than an individual, that may help dissuade the concerns of voters who equate clientelism with corruption (Greene 2017, Weitz-Shapiro 2012).

When deciding whether to include locally targeted goods in their portfolio of electoral strategies, national legislators are constrained by their desire to maximize expected vote share and minimize political risk.[1] As a result, national legislators will provide local goods to areas where they expect the good is most likely to increase their vote share. In order to do so, legislators in weak party systems will seek alternative brokers who can help translate

---

[1]Political risk refers to providing benefits where there is a low probability of electoral returns.

locally targeted goods into votes. Specifically, they will seek brokers who can be incentivized to deliver votes and who have access to networks receptive to clientelist benefits.

There are a variety of independent brokers who can help to distribute locally targeted goods, such as local business leaders, influential families, and local elected officials. What these brokers have in common is that they have strong ties in small networks and have the influence to oversee local goods provision. Since local goods often require coordination between the actor funding the project–in this case the legislator– and the actor overseeing the provision of the local goods– in this case the local broker– these brokers need to be in positions of power that lets them monitor the distribution of the locally targeted good. In the next section, I focus my analysis on one type of alternative broker, mayors, who can help translate local goods into votes.

2.1   Using Mayors as Brokers

I focus on one particular type of local broker: mayors. Mayors are particularly effective brokers for locally targeted goods because of their administrative capacity to oversee local projects. This allows mayors to control both *where* local goods are provided and *how* they are made available to voters. Since mayors are also elected officials–and therefore have independent incentives to mobilize voters–they have independent resources that they have invested to create their own voter networks. For legislators, this means that mayors have a potential voter block they can deliver who have already demonstrated their loyalty (Novaes 2018). Consequently, using mayors as brokers offers legislators the necessary knowledge about voters' needs and preferences to help them customize club goods for local contexts.

However, mayors are not perfect brokers. Just as political parties need to try to find reliable brokers who will deliver votes, legislators building their own networks seek out mayors who they trust can deliver votes. Especially since mayors have an independent incentive to claim credit for goods entering their municipality in order to benefit from retrospective voting by their citizens (De La O 2013, Zucco 2013), selecting a mayor who will deliver votes

rather than hijack credit is particularly challenging (Bueno 2017). Despite this, ambitious mayors are likely to deliver votes because of their desire to strengthen their relationships with national-level politicians (McKiernan 2021). How, then, do legislators select which mayors to work with? I argue that they focus on the mayors demonstrated ability to mobilize voters using clientelist linkages as a signal that the mayor both can deliver votes and may have long-term political aspirations.

2.2   When and Where are Locally Targeted Goods Used

In order to decide where to target local goods, national legislators will consider the characteristics of both the municipality and its mayors in order to determine where providing club goods is most likely to increase vote share. The demographic characteristics of municipalities help legislators identify where voters may be most receptive to local goods while the characteristics of the mayors help legislators identify where they are most likely to work with reliable brokers. Legislators prefer to provide local goods to municipalities where providing goods is relatively inexpensive in order to reach more municipalities. Likewise, legislators will prioritize municipalities with poorer citizens since poor citizens are more likely to accept clientelist benefits (Weitz-Shapiro 2012). Thus, legislators will prioritize municipalities with a higher level of material need.

However, legislator's also want to target municipalities with mayors who will act as reliable brokers. First, the national legislator will look at whether the mayor has a clientelist network in order to gauge the strength and cohesion of the mayor's local network. A national politician will provide a local good when the mayor is able to provide access to a stable voter network where voters are likely to reward the politicians who provide additional benefits. For legislators, targeting municipalities where the mayor does not have a large voter block is an ineffective use of their resources.

As a result, national legislators are more likely to provide local goods to mayors who already have preexisting clientelist networks. This is because these mayors have shown that

they can credibly deliver votes and threaten to punish citizens who fail to cooperate with clientelist politicians. Evidence of a mayor's potential clientelist network can come in the form of the mayor's private funds used in campaigning, use of personal networks in filling bureaucratic positions, or ability to maintain voter networks even after sitting out a term. The legislator will evaluate both the presence and the strength of clientelist networks when deciding whether to use locally-targeted goods.

An alternative explanation would suggest that legislators prioritize municipalities with popular mayors. However, I argue that clientelism is more important than popularity because it shows not only that mayors can receive votes, but also that the citizens can be targeted through clientelistic, rather than just programmatic or personalistic, linkages (Luna 2014).

Another alternative explanation is to prioritize mayors who occupy the same political party as legislators because they are easier to punish if they fail to deliver votes (Brollo & Nannicini 2012). However, in weakly institutionalized party contexts, there is less party discipline and there are fewer benefits to copartisan alignment (Feierherd 2020). Thus, while there can be a reputation cost associated with failure to deliver votes, it is less likely that this reputation cost will shape the candidates' political future. This is especially true in fragmented party systems (Ribeiro & Borges 2020). Moreover, for legislators seeking to maximize the returns on their investments in a municipality, it may be more rational to target opposition districts (Casas 2018). These challenges associated with using copartisan mayors are compounded when citizens are non-partisan and will not see party as a meaningful label when deciding how to vote. Thus, the presence of a clientelist network is still the largest indicator that a mayor can deliver votes.

These conditions for receiving locally targeted goods lead to two related hypotheses. First, a national politician will be more likely to provide local goods in municipalities with high levels of material need. Second, legislators are more likely to provide local goods to mayors who maintain stronger clientelist voter networks.

3   Data and Methods

In order to test where legislators will allocate locally targeted goods, I consider the case of Colombia. Colombia is an interesting case for several reasons. First, Colombia has changed from a strong two-party system to a multi-party system where parties have limited internal capacity since the 1991 Constitution. This creates a system where, as one legislator in Colombia explained "the party is merely a name on a list."[2] General consensus among mayors, legislators, and bureaucrats is that political parties in Colombia have very little power–they do not contribute to campaigns, party members do not act cohesively in the legislature, and, as a result of the open-list proportional representation system, parties have little say on which party candidates from the electoral lists assume office.

Second, Colombian citizens have low levels of partisanship. Citizens are much more likely to identify with an elected official–for example as supporters of former president Álvaro Uribe–than the political party to which he belongs. For example, in my own representative survey of over 2000 citizens in Colombia, only 23% of respondents said they identified with a political party. When these respondents were asked which party they identified with, answers included the politicians Iván Duque, Sergio Fajardo, Gustavo Petro, and Álvaro Uribe. Consequently, it is difficult to identify party loyalists. Since parties in these systems tend to eschew vertical party strategies in favor of regionally-based strategies (Ribeiro & Borges 2020), citizens will look towards non-party cues to determine which politicians to support.

Third, Colombia is a unitary state with high levels of administrative decentralization. At the municipal level, mayors are responsible for local infrastructure, but they are largely dependent on central government transfers. Municipalities have limited freedoms to tax citizens, so most municipal income is generated through transfers from the national government. Therefore, locally targeted benefits, which often take the form of discretional transfers for municipal development projects, are especially valuable. To analyze where local benefits are

---

[2]Interview conducted in Bogota in November 2018

provided, I consider the allocation of discretionary fiscal transfers. By focusing on these discretionary transfers, I am able to separate locally targeted benefits from the guaranteed fiscal transfers that are used for non-excludable public goods. This narrows my analysis to the transfers that can be politicized.

Finally, in Colombia, mayors are not allowed to serve two consecutive terms. This should disincentivize mayors from using long-term clientelist appeals because they need to wait a full term before encouraging voters to reelect them. In the interim, voters have limited interactions with the former mayor since these mayors tend to spend the off-term in bureaucratic roles at the department level or as aids to legislators at the national level.[3] If a mayor hopes to run for a different political office, they must resign from their current political post a full year before running to avoid potential conflicts of interest. As a result, mayors need to trust that voters will continue to support them despite the lag between their time as mayor and the next election. Given these constraints, Colombia is a hard test of the theory–immediate gains from clientelism are limited and institutional rules should limit long-term payoffs.

3.1   Targeted Local Benefits in Colombia

One method for receiving local benefits in Colombia is through royalty transfers. The royalty transfer process is designed to be a largely apolitical process where royalty funds are provided to the municipalities who are best able to execute local development projects. The money for royalty transfers is collected from municipalities with extractive economies, mostly those with large mining industries, and is redistributed across the country into a variety of dog-eared financing sources. A new law implemented in 2012 reformed the royalty process to allow all municipalities to receive royalty funding, particularly through the regional and departmental funding sources. Applying for royalties is a streamlined process: municipalities complete applications proposing a development project and justifying how it relates to local, departmental, and national development goals. They discuss other forms of funding they

---

[3]Information gained through over 60 interviews with mayors and local bureaucrats from July-August 2016 and July-December 2018

are applying for and how they plan to implement the project. The project is then reviewed by a Collegiate Administrative and Decision Body (OCAD), who vote to determine which municipalities receive funds. Each OCAD process has voters from each of the three levels of government in order to address municipal, departmental, and national interests. The OCAD is the ultimate decision-making body for determining who receives discretionary royalty transfers.

The way OCAD bodies coordinate depends on the particular region or department, but their decisions often occur during online conferences and are largely influenced by the departmental and national level representatives. Receiving royalty funds from OCADs is quite difficult. As one mayor in the Antioquia department explained, "You cannot count on funds from royalties and always have to think about what other grants can help fund improvements."[4] Each department or region has autonomy in selecting which mayors, governors, and ministers make decisions for a particular OCAD.

In interviews with departmental planning bureaucrats about OCAD decisions, they emphasized that the intention is not to use politics to distribute benefits, but concede that it is impossible to completely omit political considerations. Several interview subjects emphasized the importance of the governor's preferences. The bureaucrats who vote on behalf of governors consider the governor's political strengths and alliances when placing their votes.[5] Similarly, they explain that it is possible for savvy legislators with strong ties to ministers to use their influence to sway OCAD decisions.[6]. Thus, the royalty system can be manipulated by entrepreneurial politicians who use the existing institution to further their networks. Finally, any OCAD decision is independent from past OCAD decisions, reducing concerns about receiving goods in the past increasing- or decreasing- the ability to receive funds in the present. Focusing on projects approved and transfers through the royalty process is a hard test of which municipalities receive targeted benefits because it requires the support of

---

[4]Interview conducted in the Antioquia Department, October 2018

[5]While actors at all levels of government often ask bureaucrats to attend OCAD meetings and vote on their behalf, the bureaucrats do not have independent influence over the distribution of targeted benefits.

[6]Interviews conducted August 2018-November 2018 in the Antioquia and Valle de Cauca departments

multiple actors.

3.2 Dependent Variables

I consider two different classes of transfers. The most transparent type of transfer occurs through the Sistema General de Participación (SGP). This is a guaranteed transfer that all municipalities receive. The value of the funds are determined by a formula based on the municipality's population, financial performance, and level of need. This process is apolitical, so any effect of clientelism on transfers should be a consequence of the relationship between clientelism and municipal demographics. I consider the logged transfers per capita through the SGP in millions of pesos.

Second, I consider transfers through the Sistema General de Reglarías (SGR). In order to receive funds through this process, municipalities must complete an application for a public works project that is approved by an OCAD. I consider the transfers through the SGR by first looking at the logged discretionary royalty transfers each municipality receives (in millions of pesos). I then refine this measure to only consider whether the municipality had a project approved through the OCAD process. The refinement only considers the class of discretionary transfers with the highest capacity for political manipulation.

3.3 Estimating Municipal-Level Clientelism

In order to test the effect of local clientelism on whether a municipality receives targeted local benefits, I need to measure clientelism. Clientelism cannot be observed since the exchange of money, goods, or jobs for votes is not documented in budgetary records or documents. However, a measure of clientelism that can identify differences in the extent to which politicians use clientelist appeals- rather than just a dichotomous measure of whether clientelism is present- is essential for testing how clientelism influences which municipalities receive additional benefits.

The challenges in measuring clientelism have been addressed by the literature in two

ways. First, in-depth qualitative studies of clientelism have provided evidence of how clientelism occurs at the local level, highlighting municipalities where clientelist interactions are particularly common (Abers 1998, Muñoz 2014, Ocampo 2014, Zarazaga 2014). While these types of measures are exceptionally rich, they cannot be applied to other municipalities. The second way clientelism is measured is through the use of survey list experiments designed to elicit sensitive information (Blair & Imai 2012, Blair, Imai & Lyall 2014, Gonzalez-Oscantos, de Jonge, Meléndez, Osorio & Nickerson 2012, Greene 2017). This measure is more broadly applicable, allowing respondents who see a list of potential activities to reveal how many–as opposed to which–activities apply to them. This measure minimizes concerns about under-reporting due to social desirability bias, but it is difficult to scale-down to the local level because it requires a high number of respondents, even when alternative techniques are used to separate estimates based on demographics (Blair, Chou & Imai 2019, Corstange 2009). Finding the necessary sample size is a particularly difficult task in small rural municipalities where theories suggest clientelism is most likely to happen (Brusco, Nazareno & Stokes 2004, Gingerich & Medina 2013).

In order to overcome these challenges, I create a new, original measure of clientelism that can identify municipal-level differences without limiting the analysis to municipalities where field work can be conducted or using large-scale surveys that may drop many small municipalities from the analysis. I focus on patronage–a particular form of clientelism where jobs are exchanged for political support. Interviews with bureaucrats throughout Colombia identify patronage as one of the most common forms of clientelism at the municipal level. As one mayoral assistant in the Valle de Cauca department explains "bureaucratic jobs are given based on political support."[7] Other interview subjects emphasize the importance of temporary jobs, arguing that when there are jobs that need to be filled–but cannot yet be filled through slow bureaucratic channels–mayors will use these positions to reward citizens for supporting the local government. Patronage is possible in even the poorest municipalities

---

[7]Interview conducted July 2016

and is a long-term clientelist strategy that involves iterative interactions. I expect that municipalities with high levels of patronage have mayors who have invested in building clientelist networks.

Much like clientelism, patronage cannot be directly observed. Local records will never explicitly indicate that an employee was hired because they are a "friend of the government" or that an employee is paid for a job without responsibilities. However, unlike clientelism writ large, patronage can be estimated based on available data that identifies who public employees are, what jobs they are hired to perform, and their basic qualifications. The method I use to translate this information about public employees into a widely applicable and nuanced measure of municipal-level clientelism is a Bayesian Mixed-Membership model.

The intuition for this estimation strategy is simple: Each individual is nested in a municipality and can be hired for a public job based on political considerations, their qualifications, or both. While one single observable characteristic of a public service employee cannot determine whether or not clientelism played a role in the decision to hire that candidate, the rate at which employees exhibit the same characteristics can help determine the likelihood that political motivations influenced hiring decisions. The likelihood of observing any given employee trait will vary based on whether the municipality was employing a meritocratic-based or patronage-based hiring strategy. For example, imagine a municipality hiring ten temporary teachers. Six of these teachers are paid using the municipalities own funds, rather than the funds earmarked for education. This pattern is more likely in a municipality with more patronage than in a municipality with less patronage, even though it is possible under both conditions. The estimation strategy uses the differences in the likelihood of observing specific hiring patterns in order to estimate the relative use of patronage.

In order to use a Bayesian Mixed-Membership model, I create two data frames. The first consists of demographic data on the municipality that can help explain the structural reasons for different hiring patterns. In the second, I count the number of times each employee characteristic occurs in the public hiring process. This strategy is akin to classification

models in text analysis, such as structural topic models, where researchers consider both the characteristics of a document and the words in that document in order to classify which topics are present in each document (Gross & Manrique-Vallier 2014, Roberts, Stewart, Tingley, Lucas, Leder-Luis, Gadarian, Albertson & Rand 2014, Roberts et al. 2014, Roberts, Stewart & Tingley 2016).

I analyze two classes of hires, which I call the meritocratic class and the patronage class. In the meritocratic class, hiring decisions are based on (1) whether the municipality has a position to fill and (2) whether the candidate is qualified to fill the position. In the patronage class, decisions are made based on whether the hire is politically advantageous. This can occur when a position is created solely to fill it with an ally or when the candidate is under-qualified for the position. Of course, some candidates have the distinct advantage of filling both roles: they may be filling a newly created position and be qualified to fill this new, albeit unnecessary, opening. Mixed membership allows candidates to be both qualified *and* political.

At the individual level, I use data on teacher hires. I use a series of dummy variables that highlight features of both the job filled and the employee themselves. I isolate several indicators associated with clientelism: the employee's qualifications (if their education matches the job they receive), whether they are stationed in a rural or urban area within the municipality, how they are paid, what type of position they fill, how fixed their position is (are they in a classroom or is it a floating position), whether they received a bonus, and whether they belong to a particular ethnic group. Each employee characteristic can occur in patronage hires or meritocratic hires. However, the likelihood of observing the employee characteristics varies based on whether the employee is hired based on patronage considerations. The final data frame has a row for each municipality and a column for each employee trait. Each cell has a count of how many employees in the municipality share the same trait.[8].

Next, I condition these estimates for how often hires tend to correspond with the pa-

---

[8]An example of how this data looks in the municipality with the highest and lowest patronage scores is in the online appendix

tronage class using prior information about each municipality. I focus on three indicators that can affect to what extent hires are likely to be clientelist: household enrollment in social programs (as a measure of need), population (clientelism tends to occur more often in smaller municipalities), and a fiscal responsibility indicator (reflecting how efficient municipalities are with their funds). This conditions the information about each employee on the municipality where he is employed.

The posterior distribution after multiplying the likelihood function and the prior information is a mixture of Bernoulli distributions representing the likelihood of the observed number of employees who fill each trait if hiring decisions are made using a patronage-based or meritocratic logic.

The estimation strategy follows the following data generating process:

1. For each municipality m, sample a patronage mixed-membership scalar $\pi[m]$ from a Beta distribution with mean $\mu[m] = g^{-1}(\mathbf{x_m}^\top \beta)$, where $\mathbf{x}_m$ is a vector of municipality-specific characteristics.

2. For each employee characteristic, c, sample the probability of observing the number of employees who share the characteristic in a patronage-based system θ_c^p from a Beta(a_c, b_c). Do the same for the probability of observing that characteristic under the meritocratic based system, $\theta_c^{\sim p} \sim$ Beta(a'_c, b'_c).

3. For each municipality m and count of employees with shared characteristics c,

   (a) Sample a patronage indicator z_{mp} from a Bernoulli$(\pi[m])$

   (b) Sample the observed number of employees sharing a characteristic y_{mc} from a Binomial$(n_m, [\theta_p^c]^{z_{mc}} \times [\theta_p^c]^{1-z_{mp}})$ where n_m is the total number of public service employees in a municipality.

This model can be used to estimate the use of patronage in any municipality where data on public hires is available. While I focus specifically on teacher hires, my empirical strategy

can be applied to any type of public sector worker. In Colombia, teacher positions are some of the most common public service positions that become available annually in both urban and rural municipalities. Due to the slow nature of the civil service system, municipalities rely on temporary hires, in addition to permanent hires, to fill positions of classroom instructors, education directors, and guidance counselors. Through the civil service, teachers need to receive special training to ensure that these educators are qualified. However, in temporary hires the requirements are quite lax, giving the local government discretion over who fills these positions. Focusing on teacher hires creates distance from the funds that mayors can receive through royalty transfers since the salaries of teachers are predominantly funded through guaranteed fiscal transfers that are dog-eared for health and education. Teachers, therefore, can be recipients of patronage that is separate from the royalty transfer process.

The estimates of patronage at the municipal-level should provide a strong measure of relative levels of clientelism across municipalities. A map of Colombia, where darker red indicates more patronage at the municipal level, can be seen in Figure 1. In darker municipalities, I expect that more public service employees will be allies with the local government and express support for the government while in lighter municipalities there will be more variation in political loyalties. Gray municipalities reflect missing data, which occurs in Southern and Eastern Colombia where, due to small populations, divisions are classified as corregimientos rather than municipalities that do not report equivalent demographic information and in municipalities where no temporary teachers were hired or data is missing on municipal-level characteristics.

I am able to estimate the relative level of clientelism in 1098 municipalities. I validate this measure using survey data from the Latin American Public Opinion Project in 2012-2014. I find that respondents in municipalities with higher estimates for clientelism are more likely to respond that their government is doing nothing to combat corruption and more likely to respond that corruption is widespread. I use ordered logit regressions where the dependent variable is the citizen's responses to the survey questions and the independent variable is
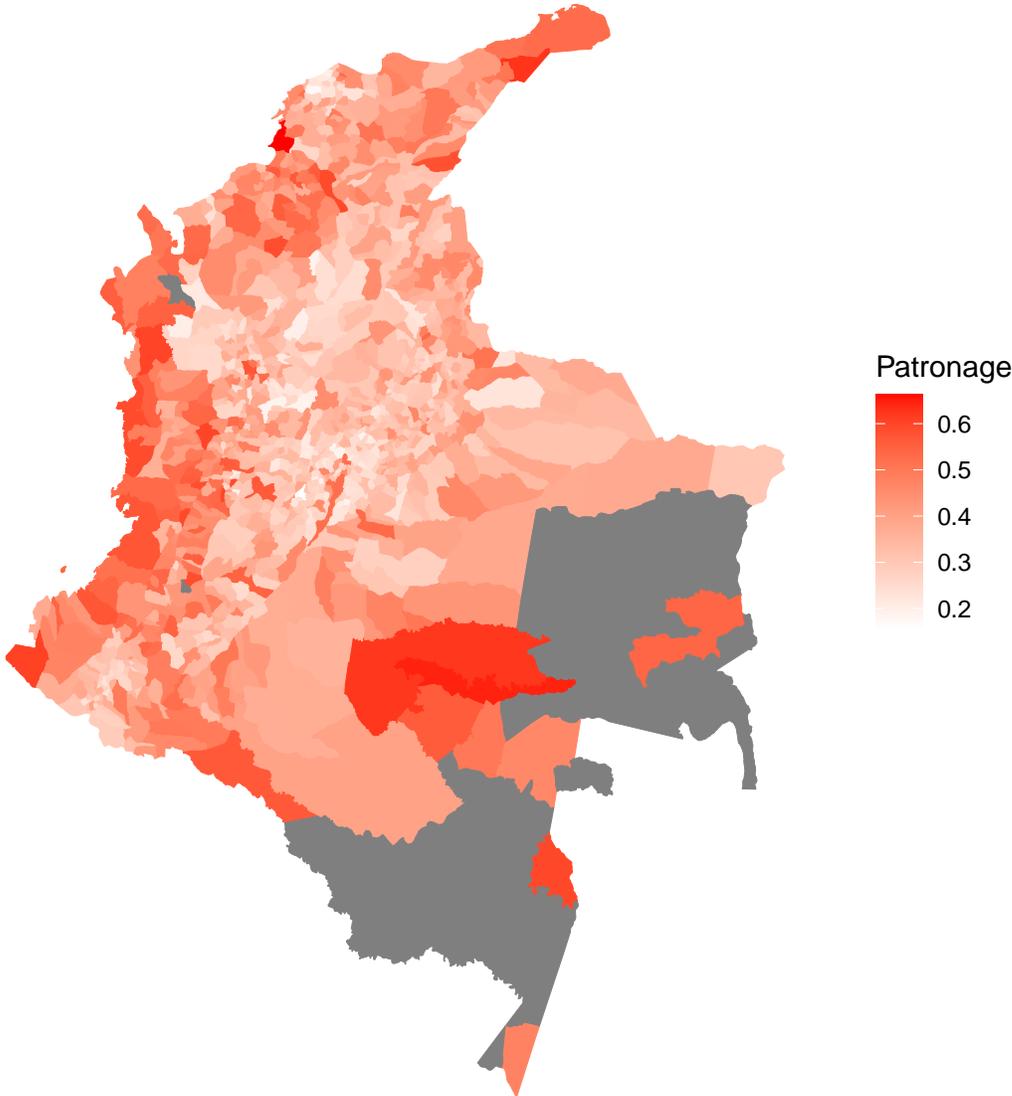
Figure 1: Estimate of Clientelism in Each Colombian Municipality

my estimate of clientelism in that respondent's municipality. In both cases, my measure of clientelism is statistically significant in the expected direction.[9]

3.4   Independent Variables

Other independent variables central to the analysis are the proportion of the population who have valid SISBEN records as a measure of need within the municipality. SISBEN is a system in Colombia for identifying vulnerable populations who receive additional social assistance. Thus, the proportion of the population who have valid records reflects how much need there is inside the municipality. In order to calculate the SISBEN measure, I divide the number of valid SISBEN records in each municipality by the total population in that municipality.

I also control for two key alternative explanations. First, I test if transfers prioritize popular mayors. To measure popularity, I calculate the margin of victory using the difference in the percent of the vote received by the winning mayor and the second-place candidate. If transfers were a product of the mayor's popularity, I would expect mayors with a larger margin of victory to receive more transfers. As an additional measure of popularity, I include whether the mayor was in office from 2004-2007, the last term they were eligible to serve. Second, I test if the transfers favor copartisans. In order to do this, I create a dummy variable for Partido de la U, the party of the president and the majority party in Congress from 2012-2015. I assign a value of one if the mayor serving from 2012-2015 is from Partido de la U and zero otherwise.

Finally, I consider meritocratic explanations for which municipalities receive transfers. If the allocation of funds were meritocratic, I would expect that municipalities that are better at managing their finances would receive more fiscal transfers. Thus, I control for the government-assigned fiscal responsibility score. In more meritocratic systems, I would expect higher scores on fiscal responsibility to correlate with more discretionary transfers. Next, I

---

[9]See online appendix for full validity checks and analysis

consider the case where more transparent municipalities are more likely to receive additional funds. In order to do this, I control for an indicator for local government openness. If the OCAD was making decisions solely based on which municipalities requesting funds were likely to use them responsibly, I would expect municipalities with higher openness scores to receive more discretionary transfers for each of the tests focused on SGR transfers. The local government openness indicator is collected by the Colombian government and considers municipal transparency where higher levels reflect more transparent municipalities. Unlike the clientelism variable, this variable focuses on the procedures the municipality follows. In fitting the model, I include the total population of the municipality, the extent to which the municipality is rural, and year fixed effects.

3.5   Methods

I test my hypotheses that municipalities with higher levels of both need clientelism are more likely to receive locally targeted benefits using data from 2012-2015. In 2012, the rules governing royalty transfers in Colombia changed to allow all municipalities to receive royalty transfers. By ending my analysis in 2015, I focus on one mayoral term. I estimate clientelism in 2013, halfway through each mayors term. I conduct my analysis using three types of transfers.

First, I consider transfers where the allocation process is most transparent. High transparency transfers occur through the Sistema General de Participación (SGP). These transfers are guaranteed to all municipalities and the value of the transfers are determined using a formula. I use ordinary least squared regression where the dependent variable is the logged value of SGP transfers.[10] I expect that these transfers will go to municipalities with high levels of need.

Next, I analyze medium-transparency transfers through the Sistema General de Reglarías (SGR). I do this using logged discretionary royalty transfers.[11] When considering royalty

---

[10]Since some municipalities receive no additional funds through SGP, I use the form log(SGP+1).

[11]In order to account for municipalities that do not receive any funds through the SGR Process, I use the

transfers per capita, I use ordinary least squares regression to estimate the linear relationship between each independent variable and royalties transfers. I expect that municipalities with a higher level of clientelism will receive more royalty transfers.

Finally, I analyze low-transparency transfers using data on whether a new project was contracted in the municipality during that calendar year. I use a logistic regression where the outcome is coded as one when the municipality receives at least one contracted project and zero otherwise. I expect that municipalities with higher levels of clientelism are more likely to receive a contracted projects.[12] For all models, I include an interaction term between whether the mayor is from the majority party and the estimate of municipal-level clientelism in order to separate the effects for majority party mayors from non-majority party mayors. For both the royalties transfers per capita and the indicator of whether a municipality received a contracted project, I also conduct heterogeneous effects estimation by running separate models for municipalities where the mayor won by a large or narrow margin of victory. For all models, I report the results using robust standard errors using heteroscedasticity and autocorrelation consistent covariance matrix estimation.

The results of the above test should represent a lower bound of the extent to which municipal clientelism influences discretionary transfers. While each test considers additional government funds, both the SGP and SGR systems are well institutionalized and consider checks to minimize politician manipulation. Thus, if clientelism has an effect on transfers through the SGR process, it is likely that clientelism has an effect on more discretionary transfers for which data is not available.

---

form log(SGR+1)

[12] As a robustness check, I also consider the total value of contracted projects as a dependent variable in the online appendix.

4   Results and Analysis

4.1   High Transparency Transfers: Guaranteed SGP Transfers

First, I test whether clientelism has an effect on transfers that are calculated through the SGP system. These transfers are entirely determined by a formula that considers population, need, and past fiscal performance of a municipality. There is no negotiation process in determining the amount transferred. I model the total transfers received through the SGP system using ordinary least squares regression with year fixed effects. Clientelism should have a minimal effect on these transfers: while it should not influence the amount of funds a municipality receives, the factors that are most important for the formula are also factors that help predict clientelism in any given municipality. I present a minimal model with only the two variables of interest- clientelism and need. In each subsequent column I include controls about the municipality, controls about the mayor, a full model with all controls, and a full model including an interaction between clientelism and being a member of the governing party, Partido de la U. The full results of this model can be found in Table 1.

Given that the analysis is conducted using ordinary least squares regression, the coefficients can be interpreted as the change in the logged value of guaranteed transfers given a one unit increase in the independent variable. I find that both municipal needs and clientelism are significant at the $p < 0.01$ level. The significance of clientelism is startling since clientelism should be irrelevant to the formula, but may be explained since municipalities with high levels of need are more likely to be clientelist. Since both the clientelism and need variables are measures from 0 to 1, they can be directly compared. The effect size of municipal need is more than twice that of clientelism.

	Base	Municipal Controls	Mayor Controls	All Controls	Include Interaction
Intercept	11.999***	12.674***	11.924***	12.863***	12.861***
	(0.066)	(0.422)	(0.069)	(0.359)	(0.365)
Municipal Clientelism	1.277***	1.347***	1.182***	1.287***	1.292***
	(0.107)	(0.128)	(0.107)	(0.108)	(0.122)
Municipal Need	2.688***	2.712***	3.121***	2.857***	2.858***
	(0.169)	(0.131)	(0.173)	(0.144)	(0.145)
Proportion Rural		0.476***		0.458***	0.458***
		(0.048)		(0.040)	(0.041)
Fiscal Performance Index		−0.013***		−0.015***	−0.015***
		(0.004)		(0.003)	(0.003)
Open Government Index		−0.002		−0.003	−0.003
		(0.001)		(0.002)	(0.002)
Population		0.000***		0.000***	0.000***
		(0.000)		(0.000)	(0.000)
Member of President's Party			−0.056***	−0.024	−0.018
			(0.019)	(0.016)	(0.072)
Mayor Margin of Victory			0.002***	0.002***	0.002***
			(0.001)	(0.001)	(0.001)
Reelected			−0.026	−0.056**	−0.056**
			(0.027)	(0.024)	(0.024)
Clientelism*President's Party					−0.018
					(0.198)
Year Fixed Effects	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
R^2	0.136	0.238	0.172	0.299	0.299
Adj. R^2	0.135	0.237	0.170	0.296	0.295
N	3780	3780	2904	2904	2904

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table 1: Guaranteed Transfers

4.2 Medium Transparency Transfers: Discretionary Royalty Transfers through SGR

Next, I consider transfers through the SGR process. Royalty transfers are designed to be based on merit: municipalities apply with projects and a committee approves whether or not they receive the funding. They are difficult to get, and designed to be a largely apolitical process based on how the project aligns with national development goals and the municipality's ability to complete the project. However, interview subjects posit that having strong relationships with legislators can help increase the likelihood of receiving these transfers. Legislators can advise mayors of the best way to frame their applications, use their relationships with ministers to help certain municipalities succeed, and may be invited to attend OCAD meetings. This is a hard test of the theory: evidence that clientelism matters in these transfers suggests political motivations influence how applications are evaluated and money is distributed. I find that clientelism is positively associated with receiving more

discretionary royalty transfers and present the full results in Table 2.

	Base	Municipal Controls	Mayor Controls	All Controls	Include Interaction
Intercept	3.553***	1.408**	3.383***	1.893**	2.156***
	(0.312)	(0.645)	(0.357)	(0.760)	(0.778)
Municipal Clientelism	2.306***	2.369***	2.725***	2.473***	1.875***
	(0.586)	(0.527)	(0.667)	(0.602)	(0.695)
Municipal Need	−2.261**	−1.842**	−2.338**	−1.512	−1.652*
	(0.879)	(0.782)	(1.048)	(0.969)	(0.972)
Proportion Rural		−0.458**		−0.858***	−0.869***
		(0.212)		(0.248)	(0.248)
Fiscal Performance Index		0.054***		0.044***	0.044***
		(0.007)		(0.008)	(0.008)
Open Government Index		−0.019***		−0.016***	−0.016***
		(0.005)		(0.006)	(0.006)
Population		−0.000		−0.000	−0.000
		(0.000)		(0.000)	(0.000)
Member of President's Party			0.189	0.139	−0.698
			(0.117)	(0.115)	(0.481)
Mayor Margin of Victory			−0.002	−0.002	−0.001
			(0.004)	(0.004)	(0.004)
Reelected			−0.448**	−0.351*	−0.327*
			(0.187)	(0.189)	(0.189)
Clientelism*President's Party					2.368*
					(1.364)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
R^2	0.155	0.177	0.162	0.182	0.183
Adj. R^2	0.153	0.175	0.159	0.179	0.180
N	3780	3780	2904	2904	2904

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table 2: Royalty Transfers

Unlike the guaranteed transfers through the SGP system, in the SGR system municipal need is negative- indicating that municipalities with higher levels of need receive fewer transfers. This effect is not statistically significant at $p < 0.05$ when all controls are included. This finding suggests the royalties program is not, in fact, need based. Second, I find that clientelism has a consistent positive and statistically significant effect. When a mayor has a local clientelist network, they are better positioned to receive additional fiscal transfers. This effect is even stronger for mayors in the majority party(significant at $p < 0.1$).

I find support for the idea that when a mayor can act as a potential broker, they are more likely to receive locally targeted goods. There is no relationship between mayors with larger margins of victory or mayors in Partido de la U and receiving additional transfers. Moreover, reelected mayors receive fewer royalty transfers, on average. As seen in Figure 2, the log of discretionary royalties transfers, in pesos, increases as clientelism increases.[13].

---

[13]This figure is based on the model with all control variables, set at their means or mode. It does not
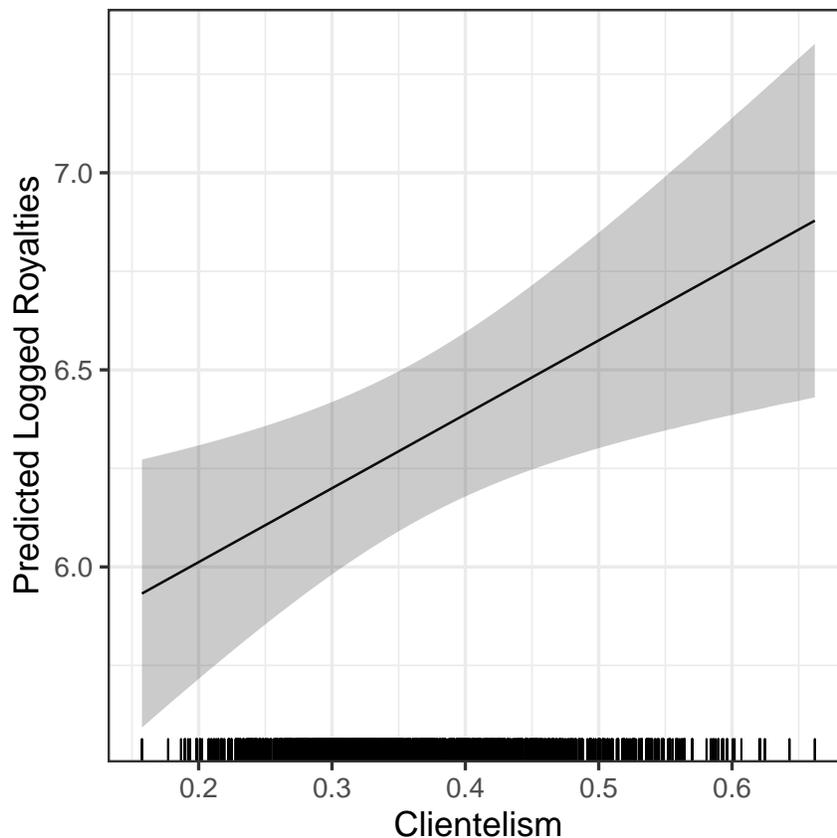
Figure 2: Discretionary Royalty Transfers

I also perform a heterogeneous effects analysis in order to see if the effect of clientelism varies in more or less competitive municipalities. I divide the data into two groups: municipalities where the mayor's margin of victory was below the median (more competitive municipalities) and municipalities where the mayor's margin of victory was above the median (less competitive municipalities). For this test, I do not include the margin of victory and I find that the effect of clientelism holds regardless of how competitive the election was. Notably, when separating more and less competitive municipalities, reelected mayors only receive fewer transfers in competitive municipalities.[14]

include the interaction between clientelism and membership in the majority party

[14]For the regression table and figure for the heterogeneous effects estimation, see the online appendix.

Low Transparency: Receipt of Contracts

Finally, I focus on whether a municipality receives a new contracted project. I argue that municipalities with higher levels of clientelism are more likely to receive contracts. While some municipalities receive more than one project, this is incredibly rare. From the period from 2012-2015, only 9.5% of observations receive a project at all. This is the easiest transfer to manipulate because it requires not only the approval of a project, but also the transfers of funds for specific development initiatives. The full results of this model can be found in Table 3.[15]

	Base	Municipal Controls	Mayor Controls	All Controls	Include Interaction
Intercept	-20.097^{***}	-21.412^{***}	-20.115^{***}	-21.016^{***}	-20.977^{***}
	(0.380)	(0.868)	(0.509)	(1.020)	(1.070)
Municipal Clientelism	2.623^{***}	2.278^{***}	3.194^{***}	2.492^{***}	2.413^{**}
	(0.655)	(0.684)	(0.779)	(0.778)	(0.956)
Municipal Need	-2.018^{*}	-1.540	-3.820^{***}	-2.827^{*}	-2.849^{*}
	(1.106)	(1.158)	(1.408)	(1.456)	(1.467)
Proportion Rural		-0.742^{***}		-1.196^{***}	-1.198^{***}
		(0.264)		(0.320)	(0.321)
Fiscal Performance Index		0.044^{***}		0.046^{***}	0.046^{***}
		(0.010)		(0.012)	(0.012)
Open Government Index		-0.018^{***}		-0.024^{***}	-0.024^{***}
		(0.006)		(0.007)	(0.007)
Population		0.000		0.000	0.000
		(0.000)		(0.000)	(0.000)
Member of President's Party			0.386^{**}	0.395^{**}	0.295
			(0.166)	(0.154)	(0.602)
Mayor Margin of Victory			0.010^{**}	0.012^{**}	0.012^{**}
			(0.005)	(0.005)	(0.005)
Reelected			-1.000^{***}	-0.899^{**}	-0.894^{**}
			(0.381)	(0.388)	(0.388)
Clientelism* President's Party					0.269
					(1.556)
Year Fixed Effects	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
AIC	1989.310	1943.305	1481.047	1431.860	1433.834
BIC	2026.735	2005.680	1534.812	1509.520	1517.468
Log Likelihood	-988.655	-961.652	-731.524	-702.930	-702.917
Deviance	1977.310	1923.305	1463.047	1405.860	1405.834
N	3780	3780	2904	2904	2904

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table 3: Contracted Projects

I find that the coefficient on the level of municipal need is negative. This suggests that, all else equal, contracts are given to municipalities with lower levels of need, running counter to the hypothesis.

---

[15] An alternative version of this model using a Negative Binomial Regression to account for the 95 instances where a municipality received more than one contracted project can be found in the appendix. Receiving more than one project only occurs in 2.5 % of the data.
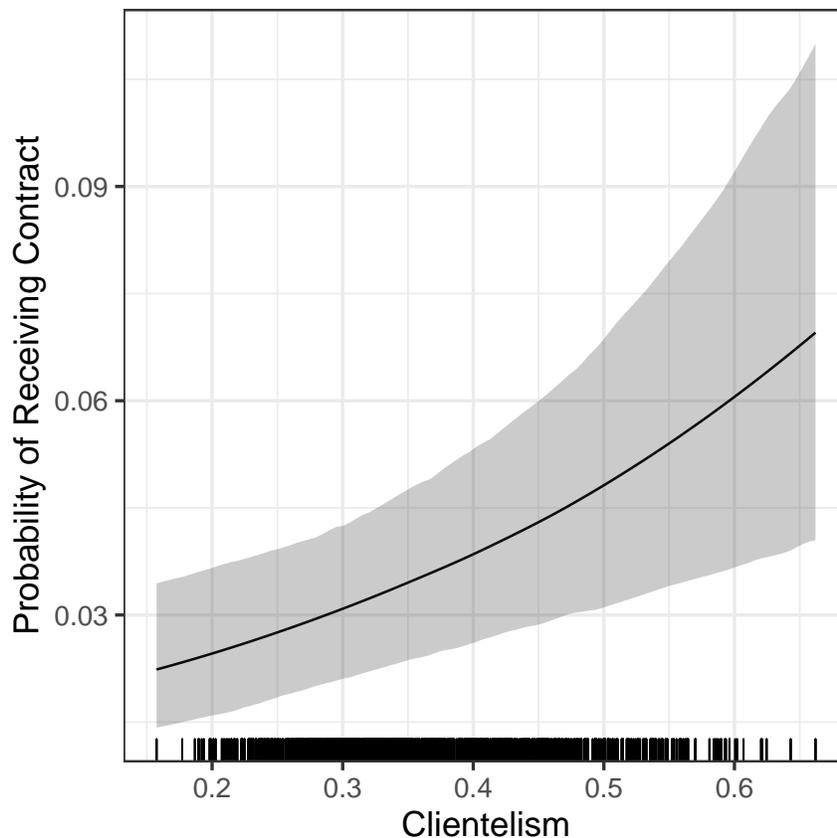
Figure 3: Predicted Probability of Receiving a Contract

I again find that clientelism is positive and statistically significant. This suggests that when municipalities have higher levels of clientelism, they are likely to receive a contracted project. This supports the hypothesis that legislators are more likely to provide locally targeted goods to municipalities where the mayor can act as a broker. When mayors build clientelist networks, they can more reliably deliver votes and are more desirable to national legislators. This effect is consistent regardless of whether the mayor is in the same party as the president. The probability of receiving a contract in a municipality given its level of clientelism, with bootstrapped standard errors, can be seen in Figure 3. Notably, from the lowest observed level of clientelism in my sample of municipalities to the highest, the probability of having a project contracted increases from under 3% to over 6%.

When considering the alternative hypotheses, I find that there is a positive and statisti-

cally significant effect of both a higher margin of victory and membership in Partido de la U, but these effects are substantively small relative to the effect of clientelism. Notably, the effect of being a reelected mayor is negative, suggesting it is more difficult for a mayor to receive a contracted project their second term. Finally, the effect of fiscal responsibility is positive while the effect of transparency is negative.

These results provide interesting insight for the distribution of locally targeted benefits. Regardless of need and other standard municipal characteristics, evidence of clientelist networks does, in fact, increase the likelihood that a municipality receives new development projects. Notably, this effect holds regardless of the mayor's political party. When I conduct the heterogeneous effects estimation, I find that the effect of clientelism holds in both more and less competitive municipalities.[16]

Taken together, the results for discretionary royalties transfers and whether a municipality contracts a new project support the hypothesis that municipalities where mayors have a proven capacity to act as brokers are more likely to receive additional transfers from the central government. Municipalities where mayors have built larger patronage networks are both more likely to receive contracted projects and are likely to receive larger royalties transfers. This holds regardless of political party, the mayor's popularity in their municipality, and whether the mayor has previously held office.

Need, however, does not have a consistently positive effect. When focusing on transfers through the SGR process, need is negatively associated with both whether a municipality receives a contracted project and the total value of transfers received. This is noteworthy because it suggests that these transfers are not purely based on need– while higher need municipalities may also require fewer funds to have an effect, the reduced likelihood of receiving a contract shows that the system does not necessarily direct projects to the highest-need areas of the country.

A meritocratic explanation for royalty transfers also provides limited support. In both

---

[16]See online appendix for full results.

measures of transfers through the SGR system, fiscal performance is a positive and sta-
tistically significant. However, the effect size of this indicator is smaller than the effect
of clientelism. Moreover, there is a negative relationship between open governments and
receiving funds for both the total discretionary transfers and the number of contracts.

5   Conclusion

This analysis provides several key insights about how goods are distributed in weakly institu-
tionalized party systems. When legislators use locally targeted goods to target voters, then
my analysis suggests that the importance of municipal-level clientelism is two-fold. First,
legislators are more likely to provide benefits to municipalities with preexisting clientelist
networks. Second, mayors will continue to use clientelism at the local level, perhaps to sig-
nal that they are reliable brokers. While mayors do not advertise their clientelist networks,
in Colombia many areas have rich historical clientelist legacies and politicians have clear,
well-established, personal networks. Legislators, many of whom once served in local-level
offices, can identify central actors in their departments who control clientelist networks. For
mayors, continuing to pursue clientelist strategies is a way to bring necessary goods into the
municipality.

In Colombia, mayors cannot serve two consecutive terms. In the short term, this may
disincentivize the use of clientelism since mayors needs to believe that their voters will uphold
a clientelist bargain on a longer time horizon. However, if clientelism is a cost that allows
mayors to bring additional funds into their municipality and strengthen relationships with
national legislators, using clientelism can be a way to curry additional favor with national
legislators rather than just a way to help maintain their own voter network. Furthermore,
these benefits might explain why local-level clientelism persists.

Early work on clientelism highlights the crucial role that mayors can play (Valenzuela
1977). However, as the study of clientelism has increasingly moved towards party brokers

and how clientelism persists alongside programmatic campaigns, analysis of mayors has decreased in favor of considering which actors politicians will choose as brokers instead of local politicians This has highlighted the risks of selecting another politician: competing interests mean that mayors may not always be willing to attribute credit to legislators, highlighting the inherent principal-agent challenges in the politician-broker dyad. This is particularly true when the specific politician, rather than the party, is most likely to benefit from receiving credit. In this analysis, I show that the mayor's characteristics–and ability to deliver votes–still continues to affect the distribution of particularistic benefits. Where political parties are weakly institutionalized, a mayor who can use their position in the community to deliver voters can fulfill an important brokerage role.

Support for the hypothesis that clientelist mayors have increased access to central government resources provides potential insight as to why we see such unequal distribution in access to public goods. Mayors who are best equipped to manipulate the system–either from their ability to manage local funds and, perhaps more notably, their ability to create reciprocal clientelist networks– are more likely to receive goods. This reinforces territorial inequality since mayors selected as brokers can continue to benefit while others struggle to bring extra funds into their municipalities.

References

Abers, Rebecca. 1998. "From Clientelism to Cooperation: Local Government, Participatory Policy, and Civic Organizing in Porto Alegre, Brazil." *Politics and Society* 26(4):511–537.

Auerbach, Adam Michael & Tariq Thachil. 2018. "How Clients Select Brokers: Competition and Choice in India's Slums." *American Political Science Review* 112(4):775–791.

Blair, Graeme & Kosuke Imai. 2012. "Statistical Analysis of List Experiments." *Political Analysis* 20(1):47–77.

Blair, Graeme, Kosuke Imai & Jason Lyall. 2014. "Comparing and Combining List and Endorsement Experiments: Evidence from Afghanistan." *American Journal of Political Science* .

Blair, Graeme, Winston Chou & Kosuke Imai. 2019. "List Experiments with Measurement Error." *Political Analysis* 27:455–480.

Brollo, Fernando & Tommaso Nannicini. 2012. "Tying Your Enemy's Hands in Close Races: The Politics of Federal Transfers in Brazil." *American Political Science Review* 106(4):742–761.

Brusco, Valeria, Marcelo Nazareno & Susan C Stokes. 2004. "Vote Buying in Argentina." *Latin American Research Review* 39(2):66–88.

Bueno, Natàlia S. 2017. "Bypassing the Enemy: Distributive Politics, Credit Claiming, and Nonstate Organizations in Brazil." *Comparative Political Studies* pp. 1–37.

Casas, Agustin. 2018. "Distributive Politics with Vote and Turnout Buying." *American Political Science Review* 112(4):1111–1119.

Corstange, Daniel. 2009. "Sensitive Questions, Truthful Answers? Modeling the List Experiment with LISTIT." *Political Analysis* 17:45–63.

Dargent, Eduardo & Paula Muñoz. 2011. "Democracy against parties? Party system deinstitutionalization in Colombia." *Journal of Politics in Latin America* 3(2):43–71.

De La O, Ana L. 2013. "Do Conditional Cash Transfers Affect Electoral Behavior? Evidence from a Randomized Experiment in Mexico." *American Journal of Political Science* 57(1):1–14.

Devarajan, Shanta, Stuti Khemani & Shekar Shah. 2009. *Does Decentralization Enhance Service Delivery and Poverty Reduction.* Edward Elgar Publishing Limited chapter The Politics of Partial Decentralization, pp. 79–101.

Escobar, Cristina. 2002. "Clientelism and Citizenship: The Limits of Democratic Reform in Sucre, Colombia." *Latin American Perspectives* 29(5):20–47.

Feierherd, Germán. 2020. "How Mayors Hurt Their Presidential Ticket: Party Brands and Incumbency Spillovers in Brazil." *The Journal of Politics* 82(1):195–210.

Gervasoni, Carlos. 2010. "A Rentier Theory of Subnational Regimes: Fiscal Federalism, Democracy, and Authoritarianism in the Argentine Provinces." *World Politics* 62(2):302–340.

Gingerich, Daniel W & Luis Fernando Medina. 2013. "The Endurance and Eclipse of the Controlled Vote: A Formal Model of Vote Brokerage Under the Secret Ballot." *Economics & Politics* 25(3):453–480.

Gonzalez-Oscantos, Ezequiel, Chad Kiewiet de Jonge, Carlos Meléndez, Javier Osorio & David W. Nickerson. 2012. "Vote Buying and Social Desirability Bias: Experimental Evidence from Nicaragua." *American Journal of Political Science* 56(1):202–217.

Greene, Kenneth F. 2017. "How Democracy Undermines Vote Buying: Campaign Effects and the Elusive Swing Voter." Working Paper.

Gross, Justin. & Daniel Manrique-Vallier. 2014. *Handbook of Mixed Membership Models and Their Applications*. Chapman and Hall chapter A Mixed-Membership Approach to the Assessment of Political Ideology from Survey Responses, pp. 119–140.

Holland, Alisha. 2015. "The Distributive Politics of Enforcement." *American Journal of Political Science* 59(2):357–371.

Holland, Alisha & Brian Palmer-Rubin. 2015. "Beyond the Machine: Clientelist Brokers and Interest Organizations in Latin America." *Comparative Political Studies* 48(9):1186–1223.

Holland, Alisha C. 2016. "Forebearance." *American Political Science Review* 110(2):232–246.

Khemani, Stuti. 2010. "Political capture of decentralization: Vote-buying through grants-financed local jurisdictions." *World Bank Policy Research Working Paper* .

Kitschelt, Herbert. 2000. "Linkages between citizens and politicians in democratic polities." *Comparative political studies* 33(6-7):845–879.

Kitschelt, Herbert & Steven L Wilkinson. 2007. *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition.* Cambridge University Press chapter Citizen-Politician Linkages: An Introduction, pp. 1–49.

Larreguy, Horacio, Cesar E. Montiel Olea & Pablo Querubin. 2017. "Political Brokers: Partisans or Agents? Evidence from the Mexican Teachers' Union." *American Journal of Political Science* 61(4):877–891.

Lawson, Chappell & Kenneth F Greene. 2014. "Making clientelism work: How norms of reciprocity increase voter compliance." *Comparative Politics* 47(1):61–85.

Lucciasano, Lucy & Laura Macdonald. 2012. "Neo-liberalism, Semi-clientelism, and the Politics of Scale in Mexican Anti-poverty Policies." *World Political Science* 8(1):1–27.

Luna, Juan Pablo. 2014. *Segmented Representation: Political Party Strategies in Unequal Democracies.* Oxford University Press.

Lupu, Noam. 2013. "Party brands and partisanship: Theory with evidence from a survey experiment in Argentina." *American Journal of Political Science* 57(1):49–64.

Lupu, Noam. 2014. "Brand dilution and the breakdown of political parties in Latin America." *World Politics* 66(04):561–602.

McKiernan, Katherine. 2021. "You Get What You Need? The Role of Credit Attribution in the Underprovision of Local Goods." Working Paper.

Muñoz, Paula. 2014. "An information theory of campaign clientelism: The case of Peru." *Comparative Politics* 47(1):79–98.

Novaes, Lucas M. 2014. "Promiscuous Politicians and the Problem of Party Building: Local Politicians as Party Brokers." APSA 2014 Annual Meeting Paper.

Novaes, Lucas M. 2018. "Disloyal Brokers and Weak Parties." *American Journal of Political Science* 62(1):84–98.

Ocampo, Gloria Isabel. 2014. *Poderes regional, clientelismo y Estado.* Odecofi–Cinep.

Oliveros, Virginia. 2016. "Making it personal: Clientelism, favors, and the personapersonal of public administration in Argentina." *Comparative Politics* 48(3):373–391.

Palmer-Rubin, Brian. 2018. "Evading the Patronate Trap: Organization Capacity and Demand-Making in Mexico." Under Review.

Penfold-Becerra, Michael. 2007. "Clientelism and Social Funds: Evidence from Chávez's Misiones." *Latin American Politics and Society* 49(4):63–84.
  URL: *http://dx.doi.org/10.1111/j.1548-2456.2007.tb00392.x*

Ribeiro, Pedro Floriano & André Borges. 2020. "The populist challenge: Multi-level electoral coordination in Brazil's 2018 elections." *Regional & Federal Studies* 30(3):363–386.

Roberts, Kenneth M. 2002. "Party-society linkages and democratic representation in Latin America." *Canadian Journal of Latin American and Caribbean Studies* 27(53):9–34.

Roberts, Margaret E, Brandon M Stewart & Dustin Tingley. 2016. "Navigating the Local Modes of Big Data: The Case of Topic Models." *Computational Social Science* 51.

Roberts, Margaret E, Brandon M Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Kushner Gadarian, Bethany Albertson & David G. Rand. 2014. "Structural Topic Models for Open-Ended Survey Responses." *American Journal of Political Science* 58(4):1064–1082.

Ryan, Jeffrey J. 2004. "Decentralization and Democratic Instability: The Case of Costa Rica." *Public Administration Review* 64(1):81–91.

Stokes, Susan C, Thad Dunning, Marcelo Nazareno & Valeria Brusco. 2013. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. Cambridge Univ Press.

Trejos, Luis Fernando & Jolie Guzmán Cantillo. 2018. "Clientelismo armado en el Caribe colombiano por medio de la Reconfiguración cooptada del Estado. El caso del Bloque Norte de la Autodefensas Unidas de Colombia." *Justicia* 24:539–578.

Valenzuela, Arturo. 1977. *Political brokers in Chile: Local government in a centralized polity*. Duke University Press.

Weitz-Shapiro, Rebecca. 2012. "What wins votes? Why some politicians opt out of clientelism." *American Jounal of Political Science* 56(3):568–583.

Zarazaga, Rodrigo S.J. 2014. "Brokers Beyond Clientelism: A New Perspective Through the Argentine Case." *Latin American Politics and Society* 56(3):23–45.

Zucco, Cesar. 2013. "When Payouts Pay Off: Conditional Cash Transfers and Voting Behavior in Brazil 2002-2010." *American Jounal of Political Science* 57(4):810–822.

Online Appendices

Table of Contents

A Data Structure for Estimating Municipal-Level Patronage

Employee Characteristic Matrix The employee characteristic matrix has a row for each municipality and a column for each employee trait. The cells are the counts of how often each trait occurs within the municipality. In Table A.1, I show a sample of this data structure for some of the most important employee characteristics. In row one I show the municipality with the lowest patronage score (Tocaima, a small city in the Cundinamarca department), and in row two I show the data for the municipality with the highest patronage score(San Onofre, a town in the Sucre department).

	Qualified	Rural	Urban	Education Funds	Tenured Position	Temporary Vacancy	Classroom	Floating
Low: Tocaima	106	41	84	125	117	6	117	8
High: San Onofre	648	420	228	648	572	75	597	49

Table A.1: Sample Structure of Municipal Employee Data

The highest level of clientelism occurs in San Onofre, which is reasonable given that Northern Colombia is known to have particularly high levels of clientelism. In fact, Trejos & Cantillo (2018) identify San Onofre as as a town with particularly strong ties with the Colombian AUC and one of many municipalities that engaged in armed clientelism. Likewise, Escobar (2002) cites San Onofre as one of many municipalities in the Sucre department where clientelism is particularly prevalent.

B Validity Check Regressions and Graphs

	Ordered Logit: Government Combats Corruption
Municipal Patronage	−1.33***
	(0.37)
1|2	−2.18***
	(0.18)
2|3	−1.35***
	(0.17)
3|4	−0.47**
	(0.17)
4|5	0.36*
	(0.17)
5|6	1.39***
	(0.18)
6|7	2.68***
	(0.19)
AIC	10871.70
BIC	10913.60
Log Likelihood	−5428.85
Deviance	10857.70
Num. obs.	2939

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Table B.1: To what extent does the government combat corruption?
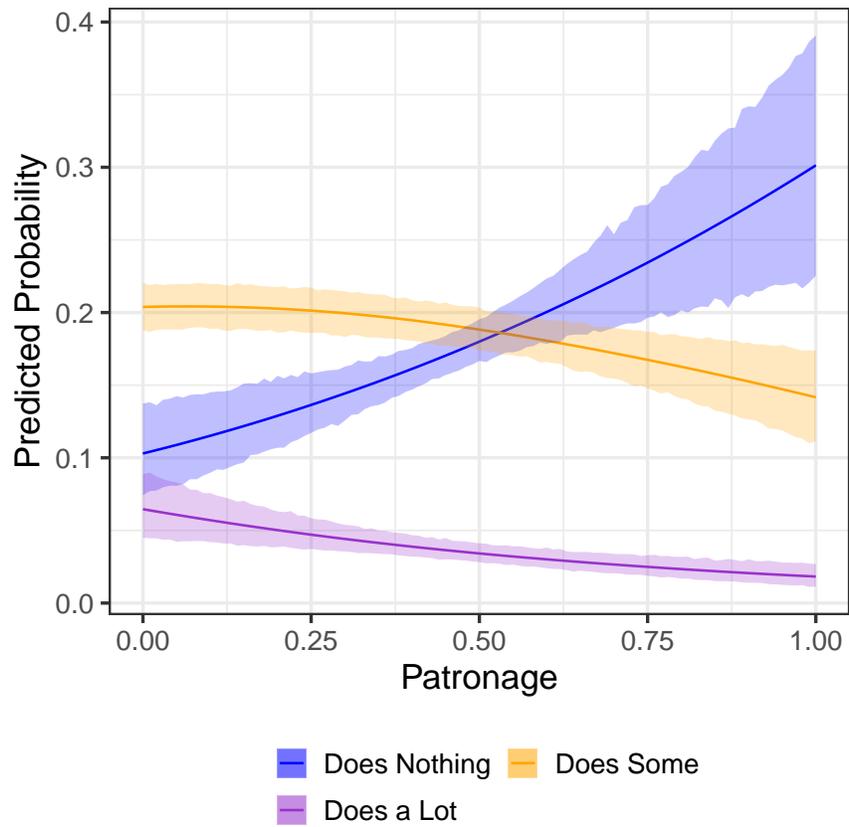
Figure B.1: Predicted Probability of Response to Question "To what extent does the government combat corruption?"

	Ordered Logit: Corruption in Public Officials
Municipal Patronage	1.86***
	(0.41)
1|2	−2.82***
	(0.22)
2|3	−1.12***
	(0.20)
3|4	0.50**
	(0.19)
AIC	5616.63
BIC	5640.43
Log Likelihood	−2804.32
Deviance	5608.63
Num. obs.	2834

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Table B.2: How widespread is corruption in public officials?

Figure B.2: Predicted Probability of Response to Question "How widespread is corruption?"

C   Alternative Modeling Specifications

C.1   Number of Projects

In this section, I present the results of a count model using a negative binomial. This model accounts for the few municipalities who received more than one project and is the full model with all controls included.

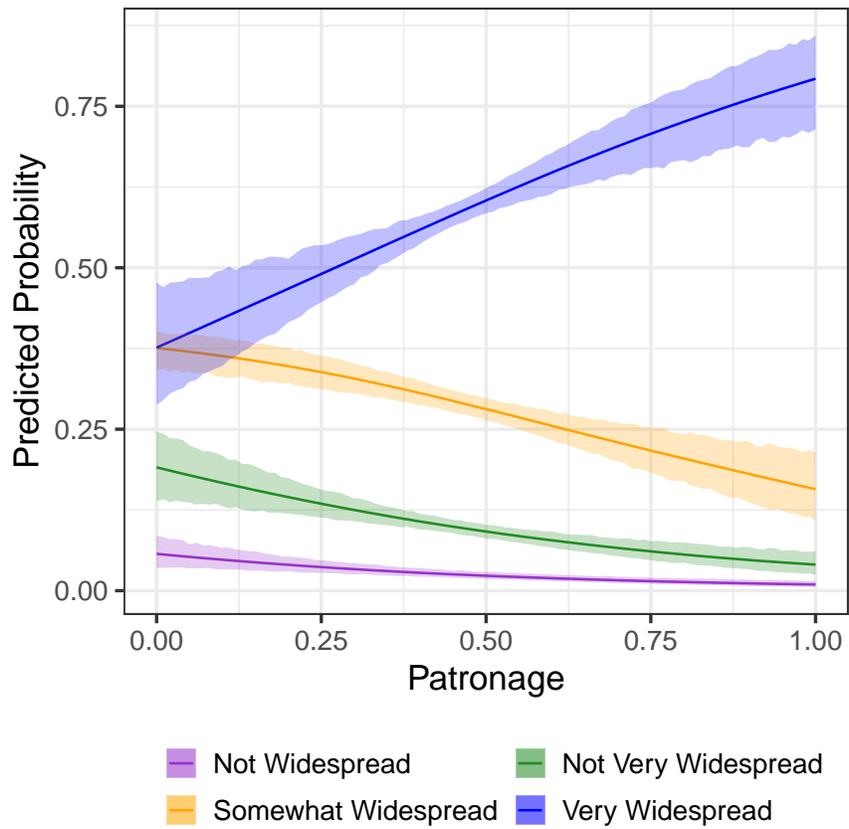|	Number of Contracted Projects
Intercept	−33.351
Municipal Clientelism	2.667***
	(0.676)
Proportion valid SISBEN	−3.549**
	(1.734)
Proportion Rural	−1.408***
	(0.348)
Fiscal Performance Index	0.042***
	(0.012)
Open Government Index	−0.021***
	(0.007)
Member of Presidents Party	0.265*
	(0.147)
Mayor Election Competitiveness	0.013***
	(0.005)
Reelected	−0.926**
	(0.376)
Population	−0.000
	(0.000)
2013	29.044
2014	30.212
2015	30.833
AIC	1894.903
BIC	1978.536
Log Likelihood	−933.451
Deviance	863.793
Num. obs.	2904

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table C.1: Negative Binomial: Number of Contracted Project

C.2   Value of Projects

In this section I attempt an alternative measure of discretionary projects focused on the value of the projects received rather than whether or not a municipality received a contracted project. Given the low number of contracted projects, this model accounts for 657 projects from 2012-2015. I find consistent evidence that municipalities with higher levels of clientelism receive more valuable projects. Notably, no other variables concerning the mayor are relevant: popularity, party, and whether the mayor has been reelected have no effect. Moreover, I find that municipalities with higher levels of need do not receive more valuable projects. This could be because the projects proposed are smaller in scope than in municipalities with lower levels of need.

	Base	Municipal Controls	Mayor Controls	All Controls	Include Interaction
Intercept	21.083***	19.629***	20.617***	18.062***	18.191***
	(0.520)	(0.882)	(0.626)	(1.015)	(1.028)
Municipal Clientelism	2.569***	2.071***	3.419***	2.483***	2.132**
	(0.763)	(0.717)	(0.869)	(0.848)	(0.947)
Municipal Need	−2.942**	−3.401***	−2.140	−2.077	−2.144
	(1.365)	(1.121)	(1.516)	(1.367)	(1.362)
Proportion Rural		−0.972***		−0.991***	−0.968***
		(0.282)		(0.343)	(0.343)
Fiscal Performance Index		0.032***		0.052***	0.053***
		(0.010)		(0.012)	(0.012)
Open Government Index		−0.001		−0.004	−0.005
		(0.007)		(0.008)	(0.008)
Population		0.000		0.000	0.000
		(0.000)		(0.000)	(0.000)
Member of President's Party			0.267	0.180	−0.350
			(0.182)	(0.173)	(0.678)
Mayor Election Competitiveness			0.001	−0.001	−0.000
			(0.006)	(0.006)	(0.006)
Reelected			0.075	0.073	0.103
			(0.325)	(0.341)	(0.336)
Clientelism* President's Party					1.423
					(1.743)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
R^2	0.061	0.128	0.070	0.182	0.183
Adj. R^2	0.054	0.116	0.054	0.161	0.160
N	657	657	471	471	471

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$

Table C.2: Value of Projects

D   Heterogeneous Effects Estimation

In this section, I display the results of a heterogeneous effects estimation for the logged value of royalties transfers and whether a municipality received a project. The regression tables include robust standard errors.

D.1   Logged Discretionary Royalties Transfers

When considering the difference between more and less competitive municipalities, the effect of clientelism is still positive and statistically significant. The difference between the two coefficients is neither statistically, nor substantively, significant. However, the negative effect of reelected mayors only occurs in more competitive municipalities. Moreover, the effect of clientelism is only larger for members of the President's Party when considering competitive elections.

	More Competitive	More Competitive	Less Competitive	Less Competitive
Intercept	2.009**	2.327**	0.975	1.241
	(1.015)	(1.035)	(1.173)	(1.215)
Municipal Clientelism	2.988***	2.178**	2.385***	1.877*
	(0.876)	(0.998)	(0.886)	(0.988)
Municipal Need	1.414	1.319	−3.133**	−3.291**
	(1.473)	(1.481)	(1.343)	(1.350)
Proportion Rural	−0.830**	−0.833**	−0.776**	−0.796**
	(0.328)	(0.327)	(0.380)	(0.379)
Fiscal Performance Index	0.038***	0.038***	0.052***	0.052***
	(0.011)	(0.011)	(0.012)	(0.012)
Open Government Index	−0.022***	−0.022***	−0.008	−0.008
	(0.008)	(0.008)	(0.009)	(0.009)
Member of President's Party	0.158	−1.047	0.177	−0.533
	(0.174)	(0.716)	(0.155)	(0.660)
Reelected	−0.647**	−0.617**	0.046	0.077
	(0.263)	(0.262)	(0.260)	(0.262)
Population	−0.000*	−0.000*	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Clientelism*President's Party		3.292*		2.081
		(1.975)		(1.936)
Year Fixed Effects	*Yes*	*Yes*	*Yes*	*Yes*

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

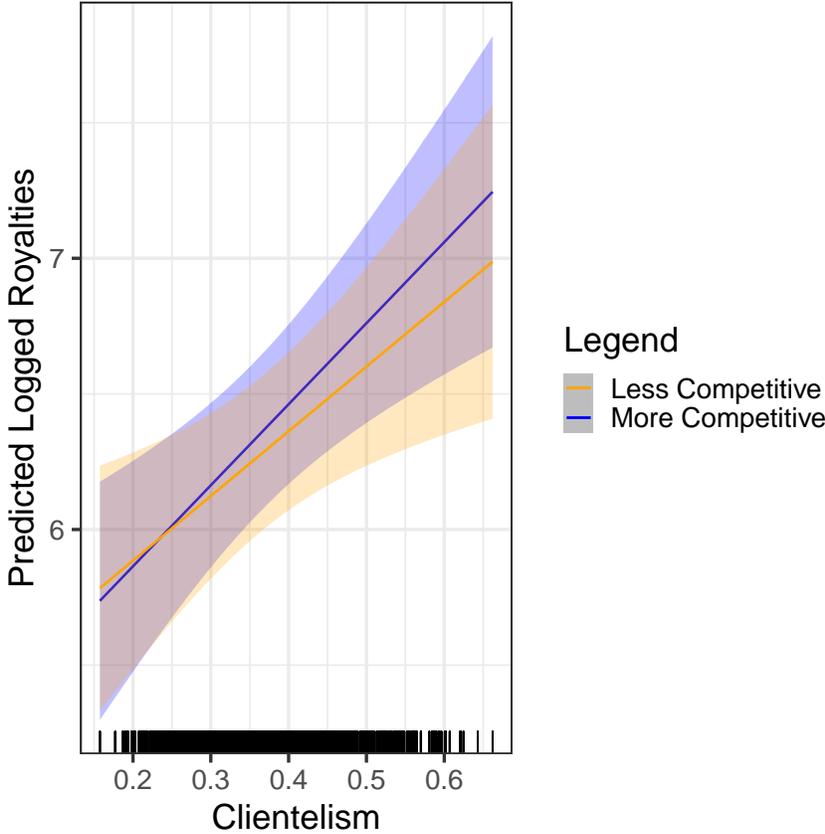Table D.1: Royalty Transfers Heterogeneous Effects

Figure D.1: Estimated Logged Royalties per Capita as a Function of Clientelism

D.2   Receiving a Contract

When receiving a contract, the effect of clientelism is larger in less competitive municipalities. Moreover, the effect of being in the majority party is only positive in less competitive municipalities and the negative effect of being reelected only occurs in more competitive municipalities. However, despite the difference in coefficients between the two models, when each models other variables are held at their respective means for the subset of data included, there is no statistical or substantive difference between the effects of clientelism on receiving a contract. Moreover, when including the interaction between clientelism and membership in the President's party there is no effect. Notably, in more competitive municipalities the effect of clientelism is not significant when this interaction is included.

	More Competitive	More Competitive	Less Competitive	Less Competitive
Intercept	-21.126^{***}	-20.962^{***}	-21.046^{***}	-21.139^{***}
	(1.528)	(1.559)	(1.559)	(1.594)
Municipal Clientelism	2.026^{*}	1.600	3.138^{***}	3.288^{**}
	(1.111)	(1.347)	(1.141)	(1.363)
Municipal Need	0.628	0.556	-5.218^{**}	-5.163^{**}
	(2.153)	(2.161)	(2.111)	(2.119)
Proportion Rural	-1.363^{***}	-1.356^{***}	-1.075^{**}	-1.065^{**}
	(0.462)	(0.462)	(0.481)	(0.488)
Fiscal Performance Index	0.040^{**}	0.041^{**}	0.052^{***}	0.053^{***}
	(0.018)	(0.018)	(0.016)	(0.016)
Open Government Index	-0.023^{**}	-0.023^{**}	-0.025^{**}	-0.025^{**}
	(0.010)	(0.010)	(0.012)	(0.012)
Member of President's Party	0.093	-0.559	0.685^{***}	0.854
	(0.238)	(0.882)	(0.219)	(0.844)
Reelected	-1.517^{**}	-1.482^{**}	-0.449	-0.461
	(0.722)	(0.725)	(0.465)	(0.458)
Population	0.000	0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Clientelism*President's Party		1.690		-0.471
		(2.204)		(2.210)
Year Fixed Effects	*Yes*	*Yes*	*Yes*	*Yes*

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$
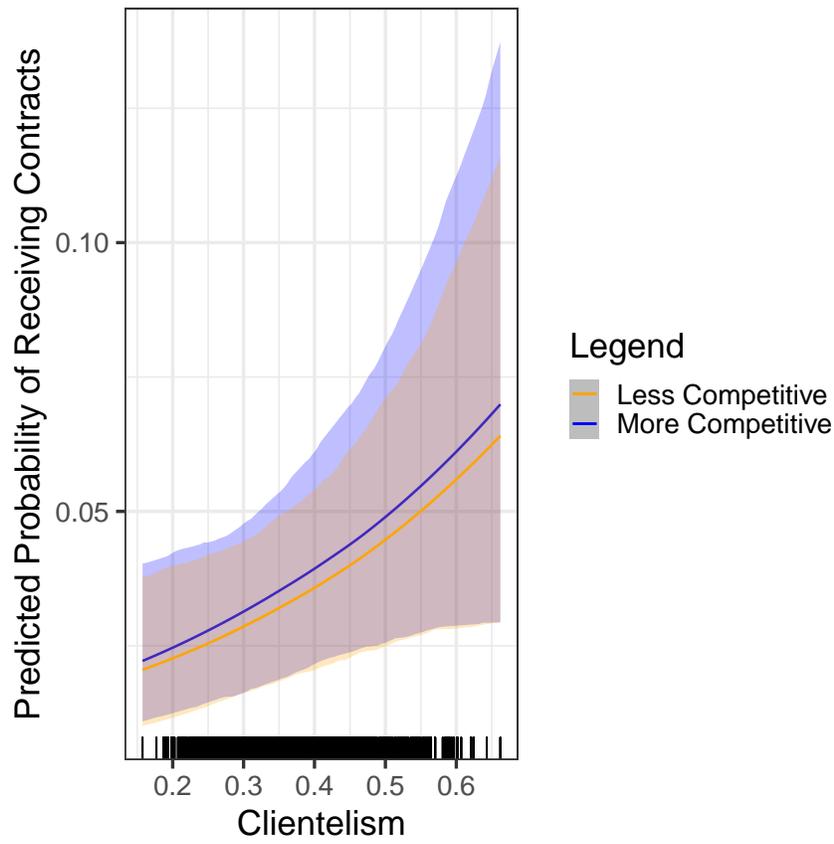
Table D.2: Receipt of a Contract

Figure D.2: Predicted Probability of Receiving a Contract

E   Summary Statistics of All Variables

Variable	Minimum	Mean	Median	Standard Deviation	Maximum
Logged SGP per Capita	0.00	13.26	13.28	0.54	15.73
Logged Discretionary Royalty Transfers	0.00	5.74	6.55	2.91	12.50
Number of Contracted Projects	0.00	0.14	0.00	0.51	7.00
Value of Contracted Projects	14.29	21.51	21.63	1.70	25.56

Table E.1: Summary Statistics for all Dependent Variables

Variable	Minimum	Mean	Median	Standard Deviation	Maximum
Municipal Clientelism	0.158	0.363	0.347	0.089	0.662
Proportion Valid SISBEN	0.001	0.231	0.234	0.058	0.540
Proportion Rural	0.001	0.547	0.583	0.242	0.983
Fiscal Performance Index	18.250	68.600	68.450	7.776	91.750
Open Government Index	20.930	67.680	68.970	10.442	94.510
Member of Presidents Party	0.000	0.247	0.000	0.431	1.000
Mayor Election Competitiveness	0.030	14.210	11.090	12.062	85.760
Population	976	37859	13417	135654.2	2464322

Table E.2: Summary Statistics for all Independent Variables