BUILDING TRUST – CAN INFRASTRUCTURE DEVELOPMENT IMPROVE GOVERNMENT TRUST IN BRAZIL?

An Undergraduate Research Scholars Thesis

by

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This project did not require approval from the Texas A&M University Research Compliance & Biosafety office.

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Governments that suffer low levels of citizen trust generally have worse policy outcomes and less citizen compliance, making it difficult to pursue other policy goals. However, scholarship on government trust in low trust environments and how to improve trust is limited. In this paper, I propose that successful infrastructure development projects within a single country, because they are a uniquely visible government policy, serve to increase citizen trust in government. Using data from the *Luz Para Todos* program in Brazil, which is a federal program that provides electricity to households that lack it, I examine the effects of this particular infrastructure development program on blank voting rates, which are associated with trust in government. I expected find that municipalities with more recipients of the *Luz Para Todos* program will have higher trust in government. I also expected this relationship to have both spatial and temporal components. While one measure of trust supported these hypotheses, an alternative measure of trust did not, leaving mixed results for the relationship between infrastructure development and trust.

DEDICATION

To my parents, Alan and Rhonda Krenek, and my faculty advisor, Dr. Guy D. Whitten.

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INTRODUCTION

Even in countries where governments are smaller or less effective, government actions affect the lives of citizens regularly. They deliver a variety of services and enforce a spectrum of regulations. There are many necessary ingredients for this apparatus to run smoothly, one of which is citizen trust in government. When citizens exhibit greater trust in government, they are more likely to comply with regulations and exhibit greater social trust and cooperation (Levi and Stoker 2000). Further, the ability of governments to pursue certain policy avenues is contingent on citizen trust (Heinemann and Tanz 2008).

Yet many governments do not enjoy high levels of citizen trust. For example, Brazil, the case study of this paper, suffers from low trust in government (Seligson 2002). Because scholarship on trust in government has been mostly applied to the United States and some democracies in Western Europe, analysis of trust in government has been relatively limited in Brazil and in Latin America more generally. Further, frameworks for understanding trust were developed for relatively high-trust environments. In particular, one framework for understanding trust in government is a transactive model, where a citizen is understood to trust their government if they believe that the government has "the integrity and capacity to meet voters' expectations" (Keele 2007). That is, when governments perform key tasks well, such as economic stewardship, citizen trust increases as a result.

In this paper, I seek to apply this framework of trust to Brazil to see if it can explain trust in government in a low trust environment. In particular, I will examine whether good performance on infrastructure development will increase citizen trust in government. I focus on infrastructure development because it is a government action that is uniquely visible. When

governments complete an infrastructure development project, laypeople are able to directly see the project and judge it for themselves. Consider the completion of a highway. Citizens are able to drive on the highway and judge the quality of the road and various other aspects of the project without specialized knowledge. Further, largescale infrastructure projects are typically promoted heavily so citizens are likely to be aware of them.

I will use implementation data from the *Luz Para Todos* program to measure infrastructure development. The *Luz Para Todos* program is a federal initiative to achieve universal electrification in Brazil. The program has not suffered accusations of mismanagement or corruption and has been linked to improved economic development and improvements on all components of the Human Development Index (da Silveira Bezerra, et al. 2017). Because of the positive outcomes associated with the *Luz Para Todos* program, in particular to improvements to economic development and quality of life, it is a suitable candidate for evaluating the impact of positive action from the government on citizen trust in government.

The goal of this paper is thus to investigate the effect of a positive infrastructure project on citizen trust in government in order to test whether the transactive model of trust is applicable in a low trust environment. Because the *Luz Para Todos* program has implementation at the municipal level, that is the level of aggregation I will be studying the proposed relationship. I will first test whether a relationship exists between the infrastructure development and trust in government. I will then consider how this relationship varies over time and space.

In the first part of this paper, I examine the relevant literature on citizen trust in government and infrastructure development. I then present my theoretical arguments, data, and methods. I present results for two different measures of trust in government as well as alternative

model specifications. Finally, I provide a discussion of those results and recommendations for further research.

1.   BACKGROUND AND THEORY

1.1   Literature Review

1.1.1   Trust in Government

The existing literature on trust in government is extensive but mostly limited to countries in Western Europe and the United States where trust is relatively high (Putnam 2000, Newton 2001, Keele 2007). In this context, there are two prevailing explanatory factors for variations in trust across time and between countries which reflect two different understandings of trust in government. The first is the eminent theory of social capital, which has inspired countless research projects. Social capital theory has greater explanatory power over the understanding of trust as a longer-term general regard for the government. Putnam (2000) defines social capital as the formal and informal networks that people in a society participate in that generate social trust, such as church membership, volunteer and community organizations, and family networks. His argument is that this social capital will help generate political trust and that social capital facilitated stronger political institutions and trust in northern Italy, compared with southern Italy, where social capital is low (Putnam, et al. 1994). Putnam provides further evidence for this assertion in his analysis of political trust in the United States. He argues that the decline in social capital seen in the United States since the 1950s can explain the declining political trust that also occurred during this period (Putnam, 2000). Like other trust in government literature, the focus of Putnam's work has largely been focused on relatively high-trust OECD countries such as the United States. At first glance, this seems to extend to Latin American countries, as both social capital and political trust there are low. Brazil in particular suffers from both low social capital and low trust in government, so building trust in government cannot be developed from a base of

social capital (Newton, 2001). If social capital is not an available base to build political trust from, then low social capital countries need to build trust via other methods.

However, Putnam's work on social capital is largely deterministic and based on existing social structures and historical events, with little room for a short-term or even medium-term improvements. For example, he goes so far as to trace social patterns from early medieval Italy to explain the differences in institutional performance and social capital in different parts of Italy in the late 20th century (Putnam, et al. 1994). While it seems uncontroversial that history should play a role in social capital and government trust, this is a rather bleak picture for governments wishing to improve present-day citizen trust in government. He also finds that socioeconomic development did not improve social capital, but rather that social capital improved socioeconomic development (Putnam, et al. 1994). This raises the question of how governments can improve social capital if not through socioeconomic development.

The second explanation for variations of trust in government provides more opportunities for governments to improve citizen trust in government. It is based on an evaluative conception of trust. This understanding of trust was historically popular in the literature and is articulated in Keele (2007) where a citizen is understood to trust their government when they believe that the government has the "integrity and capacity to meet the voter's expectations." This understanding of trust in government is transactive, where citizens extend trust as a reward for governments meeting expectations on key metrics, provides a route to improving trust in government without relying on pre-existing conditions like social capital. If the Brazilian government is looking to build trust in itself, it must prove to its citizenry that it can successfully steward the country. Based on findings in relatively high-trust countries like the United States, while there is support for social capital theory, a more transactive view of government performance also have a

measurable effect on trust in government. Economic performance, crime, corruption, and scandals are the key events that citizens use to evaluate government performance (Keele, 2007). In other words, if governments perform well on these metrics, there is an associated measurable increase in trust in government. This paper attempts to address a gap in the literature by testing whether government performance also influences trust in government outside of countries that have an established base of social and political trust.

1.1.2 *Benefits of Trust – Why Is It Worth the Hassle?*

Developing trust is a rather nebulous concern when compared with more concrete policy goals like poverty relief programs or increasing national security. Governments might wonder, justifiably, if identifying ways to increase trust in government is a worthwhile goal. Trust is however, a worthwhile goal, as many scholars have linked trust in government with improved outcomes of other government policies. For example, Heinemann and Tanz (2008) argue that a government's ability to make certain economic reforms and adapt to changing economic conditions hinges on citizen trust in the government, with more trust giving the government more leeway to create public policy. In particular, they argue that trust facilitates the implementation of policies that deal with legal reforms, involvement of the government in the private economy, and deregulations of labor markets and private businesses (Heinemann and Tanz 2008). Citizens also exhibit certain behaviors associated with trust in government that help ensure a functioning society. For example, higher trust in government has been linked to greater citizen compliance on issues such as regulation and tax compliance (Levi and Stoker 2000). These results are representative of a broader theme in the literature that links citizen trust in government with better policy implementation results. If governments seek to accomplish other goals, enhancing citizen trust in government will make those other goals easier to accomplish. Methods to enhance

trust in government are thus an important goal for low trust environments. In Brazil in particular, where institutional reform has been an important policy issue in the past several years, improving trust could help the accomplish some of these reforms. Thus, governments that have low trust have a concrete interest in increasing citizen trust in government.

1.1.3   Trust in Latin America

Brazil, like most Latin American countries, has fairly low trust in government (Seligson 2002). Of the indicators citizens use to evaluate government performance in high-trust nations, Latin American countries share many features that are associated with lower trust, such as corruption, high crime rates, and inconsistent economic performance. Based on the evaluative definition of trust, where government earn trust by performing well on key indicators that citizens care about, poor performance on these indicators should be associated with lower overall trust in government. Several scholars have in fact worked to establish the link between some of these indicators and the lower overall trust in government seen in the Latin American context. For example, Seligson (2002) shows that exposure to corruption in select Latin American countries, including Brazil, erodes beliefs in the political system and reduces interpersonal trust. Using an evaluative framework, this can be understood as the government failing to earn trust by neglecting citizen expectations for transparency and fair provision of services. High income inequality, which is likewise a characteristic of Brazilian society, is also associated with lower trust in government because high inequality violates expectations of fairness (Zmerli and Castillo 2015). This is also consistent with the evaluative definition of trust associated with government performance, where citizens do not extend trust because the government does not conform with expectations of fairness. Brazil performs poorly on several of the evaluative criteria determined to influence trust in government, which if the existing arguments for trust variation applied in

low-trust environments, could explain Brazil's low trust levels. It thus stands to reason that the arguments made for variations in trust in higher-trust countries, might also apply to low-trust countries like Brazil.

Thus, while the conditions in Latin America do not violate our understanding of trust from the existing literature, there has been little probing to understand the mechanisms through which citizens determine their level of trust in government in low-trust countries. In other words, scholars have asserted that conditions such as continued corruption and high inequality affect evaluations of trust in government in Latin America, but in general fail to examine whether an evaluative definition of trust more broadly applies in low-trust environments. For example, the key indicators citizens use to evaluate governments in high-trust countries might be different than those used in low trust countries. Further, short term changes in government performance in low-trust countries might be met with more skepticism and have less of an affect than they would in higher-trust environments.

Brazil, and low-trust countries more generally, thus lack a well-studied framework for understanding what actions are likely to build up trust in government. Despite challenges associated with limited information, several projects have attempted to address the metrics that have been linked with low trust in government. For example, as a remedy for the kind of pervasive corruption seen in Brazil, policy advocates often prescribe e-governance systems that are believed to increase transparency and foster the creation of trust. There is some evidence that e-governance systems do increase perceptions of responsiveness and transparency, especially at the local level, in the US context (Tolbert and Mossberger 2006). Brazil attempted this through their electoral system, which currently operates using an electronic system that enjoys considerable widespread trust (Avgerou, 2007). Trust in this institution warrants an investigation,

because if the Brazilian government is looking to increase trust, they might look to model future programs on a project that has done so. Although promising, Avgerou, et. al (2007) argue that the trust in the electronic voting system could be explained mostly through existing trust of information communications technology (ICT) systems and trust in the specific agencies that implemented the system. While this project provides evidence that an infrastructure project can increase trust in government, it is difficult to determine if that trust applies to the government more generally or just the specific agency implementing the project. It also shows that Brazil has the wherewithal to address issues associated with low trust, but, due to lack of research, targeted improvements are difficult to identify. I will contribute to this discussion by examining both more traditional infrastructure projects and more general trust in government rather than investigating views on a particular agency.

1.1.4   Changing Beliefs About Trust

In addition to targeting specific metrics that are linked to trust in particular government institutions, governments also seek to improve trust by changing citizens' overall perceptions of government and beliefs about the government's trustworthiness. In countries with a low-trust baseline, this might be particularly important to ensure that successful projects are associated with increases in trust across the government rather than the specific department that implemented the project. Governments might thus be interested in understanding how beliefs are formed and updated, as they are looking to change their citizens' beliefs about the trustworthiness of the government.

The literature on belief formation and updating is extensive and complex. Traditionally, scholars argued that when making judgements, people acted as rational agents that conducted full cost benefit analyses, but Tversky and Kahneman (1974) highlighted that judgements made

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under uncertainty are subject to a handful of heuristics that people use to form and update beliefs. These heuristics are especially useful when cost-benefit analyses are difficult or impossible to conduct in their entirety. Heuristics, in this context, are mental shortcuts people make to ease the burden of a decision made under uncertainty. The three heuristics introduced by Tversky and Kahneman (1974) are representativeness, availability, and anchor and adjustment. Representativeness is an attempt to make a decision based on how representative of a category something is. For example, in their paper, Tversky and Kahneman (1974) show that people assess that someone who is quiet is more likely to be associated with professions such as accounting. The availability heuristic is a judgment based on how many examples of a phenomenon someone can remember, where being able to remember more examples makes the phenomenon seem more likely. Finally, anchor and adjustment occurs if, when presented with an anchor, people use that value as a sort of starting point in making a judgement and adjust their decision around the anchor value until they arrive at what they consider a plausible value (Tversky and Kahneman 1974). Several other heuristics were identified by later researchers and include well-researched phenomena such as confirmation bias, but this paper is concerned primarily with the availability and anchor and adjust heuristics. These heuristics could help explain how citizens make decisions about their interactions with the government, given that in low-trust environments citizens cannot be sure they can trust their government to follow through on their promises and are thus operating with uncertainty.

Scholars have studied these heuristics in a political science context by applying them to voting behavior and beliefs about policies among other domains. For example, researchers have shown that the anchor and adjust heuristic influences how voters perceive and vote on local bond referenda. If the referendum includes the total (usually quite large) amount of the bond, a larger

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share of the voters vote against the bond. This is because the total amount introduces an arbitrarily high anchor and voters, while adjusting down to what they consider a plausible cost to themselves, estimate their individual cost as higher than it actually is. However, if the bond is introduced as a monthly property tax increase and lacks the large total amount, this effect is absent (Hall 2014).

Heuristics and belief updating psychology are also commonly applied to beliefs about climate change. For example, in farming communities, agricultural advisors in the Midwestern United States that perceived more variations in weather were more likely to support farming practices that promoted climate resiliency (Mase, et al. 2015). This is consistent with the availability heuristic, as recall of more unusual weather events provides anecdotal support for climate change in individual farming communities. Further, Deryugina (2013), who also examines the effect of temperature variations on beliefs about climate change, found evidence that weather events that conform with expectations about climate change are significant predictors of affirmative belief in climate change. The author also explicitly investigated belief update heuristics and found support for the availability and representativeness heuristics (Deryugina 2013). These heuristics could also apply to creating and updating beliefs about trust in government. In particular, when evaluating the government's trustworthiness, citizens might be influenced by the availability and the anchor and adjust heuristics. This implication is explored further in the next section of this paper.

More broadly, the literature on changing beliefs in a political context also seeks to understand how beliefs change regarding deeply held political notions. One example, again involving climate change beliefs, showed that for university students, educational travel which exposed students to environmental issues first-hand led to increased beliefs in climate change

and support for preventative policies (Landon, et al. 2019). Another example shows stereotypes that European Americans' have about African Americans, which are deeply held and often long-term, can be somewhat altered by hearing alternative opinions from in-group members (Stangor, et al. 2001). A common theme in much of this literature is that changing beliefs requires some exposure to the opposing side of an issue, which is challenging to enforce on a larger scale. Governments are uniquely positioned to be able to enforce exposure on such a larger scale because they are able to conduct programs throughout an entire country. Thus, to change beliefs about their own trustworthiness, there is potential for a government to show its trustworthiness at a national scale, whereas other entities trying to change beliefs may be unable to operate at this scope. Overall, however, changing deeply held political beliefs is a challenging undertaking. Further, the literature lacks clarity on how people change beliefs not simply about particular political issues, but about their relationship with the government itself. Thus, governments that suffer from low citizen trust know little about how to change their citizens' beliefs about the government's trustworthiness. As such, this paper attempts to explore one-way governments may be able to address this challenge. Consequently, in this paper I contribute to the literature by both exploring models of trust in a low trust environment and attempting to uncover a mechanism via which governments may improve this trust.

1.1.5   Infrastructure Development

The mechanism I examine for improving trust is providing good economic stewardship via infrastructure development. I suppose that infrastructure development, as a uniquely visible example of government action and, as other scholarship has shown (Calderón and Servén 2004; Pereira, et al. 2010), a mechanism for economic development, has a potential for improving government trust. The direct link between infrastructure development and trust in government is

generally understudied as most research is focused whether infrastructure development is associated with economic development. This paper goes further by examining a more direct link than previous papers between infrastructure development and trust in government; in particular, it tests whether infrastructure development, by introducing the mechanism of economic development, can also increase trust in government. The literature daisy chains infrastructure development, economic improvement, and trust in government by showing a direct link between infrastructure development and economic improvements and another direct link between economic improvements and trust in government. However, the literature lacks a direct examination of the effects of infrastructure development on trust in government.

First, the link between economic development and trust in government has been established by Chanley, et al. (2000), among others, who document how good economic stewardship and perceptions of government economic management are directly linked to citizen trust in government (Chanley, et al. 2000). Second, there is also ample evidence in the literature that infrastructure improves economic outcomes and represents the kind of good economic stewardship that has been shown to increase trust in government. In Latin America in particular, infrastructure development projects have increased economic development and decreased inequality. For example, road and sanitation access in the country has contributed to income convergence in the poorest regions of Brazil (Calderón and Servén 2004). This potentially lessens the impact of income inequality, which is negatively associated with trust in government, and strengthens trust in government through the known mechanism of economic development. Further, most research on infrastructure and economic development in Brazil focuses on the electrification of rural Brazil, which is made difficult by the inaccessibility and sparse population density of some regions of the country. Electrification efforts have proven to be largely

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successful at reducing energy poverty and improving economic conditions (Pereira, et al. 2010).

Again, this paper tests whether these improving economic conditions are directly linked to

improved evaluative perceptions of government. If governments can accomplish dual goals –

economic development and trust in government – by completing infrastructure projects,

governments will be able to govern better due to both increased available funding and a

friendlier environment for public policies.

1.2   Theory

As outlined above, the evaluative definition of trust is that a citizen trusts their

government when they believe that the government has the "integrity and capacity to meet the

voter's expectations" (Keele 2007). In this framework, Brazil's low trust in government can be

attributed to citizens negatively perceiving characteristics of the government's performance such

as economic stewardship and corruption. These negative perceptions of the government are

developed by repeated interactions with the government in which the government's performance

is lacking. Each negative interaction further reduces trust in government, culminating in low

overall levels of trust. This framework of evaluative trust, which was developed in high-trust

environments, has been assumed to apply to low-trust countries like Brazil. This paper will

therefore examine this framework within Brazil to test if it holds in a low-trust country.

The successful completion of an infrastructure project should represent a positive

interaction with the government that counteracts some of the other negative interactions.

Assuming the project itself is not tainted by allegations of corruption or mismanagement, a

completed infrastructure project showcases several positive features of governments. For

example, it shows capacity to plan, pay for, and complete a large-scale project, ability to improve

baseline conditions for economic development, and an understanding of citizen needs.

Infrastructure development projects are also a uniquely visible government action. Completed projects are known not only to direct recipients, but also nearby citizens. They are sometimes even reported on at a national level, as is the case with major new roads. When citizens see a successfully completed project, it should factor in to their evaluation of government and increase their level of trust. This expectation should have an even greater effect if the project has a direct impact on the citizen.

Because the nature of evaluations of trust is that they're cumulative, repeated exposure to new infrastructure should have a larger effect than if a citizen has a one-off exposure. For example, if an infrastructure project positively impacts someone directly, and then later positively impacts their neighbor, and then later again positively impacts a member of their family, it should have a greater effect than if the project only impacted themselves. Thus, consistent with the availability belief formation heuristics, communities that have a larger share of the population benefitting from a project should have greater improvements in their trust in government.

H1: If a larger share of a community is positively impacted by an infrastructure project, then the community will exhibit greater increases in trust in government compared with communities that have a smaller share of people impacted.

In addition to repeated exposures in self-contained communities, seeing positive impacts in nearby communities as well should also lead to increased trust. In fact, it should inspire further confidence than if the recipients were limited to one community. This is because seeing positive impacts in nearby communities as well shows that the project is larger in scale. So further increases in trust come both from more exposure, and thus more points to factor in to the

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availability heuristic, but also demonstrating that the project is larger and more complex and thus more impressive to manage well.

H2: If nearby communities are also positively impacted by an infrastructure project, then the community will exhibit even greater increases in trust in government.

However, citizens do not reevaluate their level of trust in government entirely with each new interaction. Instead, modifications to their beliefs are incremental, where the most recent several interactions matter more than past interactions. This is consistent with the anchor and adjust belief formation heuristic introduced by Tversky and Kahneman (1974). Because the completion of infrastructure projects does not represent an ongoing interaction with the government, and maintenance of infrastructure projects is often less visible than their initial installation, I expect this positive effect on evaluative performance to decrease over time.

H3: As time passes with no new exposure to completed pieces of infrastructure, the initial gains in trust in government will diminish over time.

If these hypotheses are supported by the evidence, then this would be evidence that the evaluative framework outlined above can be applied in low-trust countries like Brazil. If this is the case, infrastructure development could be a tool that low-trust countries can use to improve both their political trust and their economic development, which are themselves mutually enforcing.

2. DATA AND METHODS

2.1 Measuring Trust

Surveys of trust are typically conducted at a national level. While this aggregation is valuable for comparing outcomes between countries or in a single country over time, it is less useful for studying the determinants of trust within a country over a shorter time period. Infrastructure development projects are normally limited to a single country over a span of a few years at the most. Further, their impact is often more localized, making national level surveys less useful for capturing the impact of infrastructure projects on trust. These conditions make it necessary to seek a more localized measure of trust than existing surveys provide.

The measure I use to capture trust must align with the evaluative definition of trust that Keele (2007) articulates, which defines trust as a belief that the government has the capability to meet voter expectations. This definition aligns with the transactional nature of trust that serves as the underpinning for my theoretical arguments. I propose that citizens will evaluate the government's execution of infrastructure projects and come to a conclusion about whether the government is capable of meeting their expectations. Because these infrastructure projects have differential impact based on where they are implemented, the indicator I use to measure trust must be reliably and consistently available at a subnational level. To my knowledge, no such survey data exist.

Rather than asking people directly to report their level of trust in government, I instead measure behaviors that are associated with trust in government. For example, Levi and Stoker (2000) review the existing literature to determine that certain citizen behaviors such as tax and regulation compliance, particular voting behaviors, and citizen participation are associated with

trust in government. The higher level of government trust, the more likely people are to exhibit these behaviors. Of particular importance in this paper is voting behavior because electoral data is consistently and reliably available at the municipal level in Brazil. Brazil's electronic voting system ensures relative accuracy and breadth of the type of information available (Avgerou, et al. 2007).

Given the breadth of information available about Brazilian electoral results and behaviors, there are a variety of options for selecting the behavior most closely associated with trust. For example, in the US context, lower levels of trust are linked with less support for incumbents, which manifests in increased support for third-party or Independent candidates, especially when those candidates express anti-establishment sentiments (Levi and Stoker 2000). While some evidence of this phenomenon exists in Brazil, as the case of frustration with corruption leading to increased support for anti-establishment candidate Jair Bolsonaro in the 2018 presidential election shows (Hunter and Power 2019), Brazil's fragmented party systems prevents clear and consistent identification of parties or candidates as anti-establishment. A further issue with applying this measure to the Brazilian context is that many of these fragmented parties are clientelist (Gonzalez-Ocantos and Oliveros 2019). This would pose problems for measuring the impact of infrastructure development on voting behavior because infrastructure projects that reduce vulnerability among the poor have been demonstrated to reduce voting for clientelist incumbents (Bobonis, et al. 2017). This behavior makes using support for anti-establishment non-incumbents as a measure of trust problematic because reduced reliance on clientelist incumbents could complicate the effect of my supposed increased trust for those incumbents.

A solution to this classification issue comes again from the US context, where perceptions of increasing corruption left citizens with less confidence that the government could solve their problems, which was then associated with a lower voter turnout (Caillier 2010). In this way, trust in the ability of governments to solve problems was thus linked with voter turnout. In the Brazilian context voting is mandatory, and while penalties for noncompliance are low, this mandatory aspect complicates the use of voter turnout as a measure of trust in government. However, one option Brazilian citizens have that replicates aspects of both the anti-establishment vote and the decision to stay home rather than vote is the ability to cast a blank or null ballot, where citizens explicitly choose none of the available candidates.

The difference between a null and a blank ballot is largely a technicality. A null ballot is a ballot that is filled out incorrectly, thus invalidating the vote, whereas a blank ballot fails to include a vote for any of the available candidates (Nicolau 2015). Further, interviews have shown that people will cast blank and null ballots to communicate frustration (Saccone 2018). For this paper, I exclude null ballots and instead exclusively use rates of blank ballots. While combining these ballot classifications would have been preferable, the data for null ballots were noisier and had enough missing entries that its inclusion muddied rather than clarified my analysis. Thus, the measure I ultimately use is the percentage of votes that are blank for each race in each municipality for every year under consideration. Brazil's electoral system is characterized by high rates of blank and invalid voting as well as abstention, despite mandatory voting laws. Thus, there is noteworthy variation in the percentage of blank ballots by year, municipality, and office up for election. I also chose to exclude rates of abstention for my main analysis because certain socioeconomic factors could complicate an individual's decision to stay home that are less applicable to blank or votes. For example, I suspected that difficulty getting to

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poll, lack of information about when and where elections would take place, and similar circumstances would affect the rate of abstention to a larger degree than the rate of blank votes, given that if a blank vote is cast, it can be assumed that that person had overcome those obstacles. I do, however, consider abstention rates as a robustness check in a secondary analysis.

2.2 Measuring Infrastructure Development

The infrastructure project I am using to test my hypotheses is the *Luz para Todos* program. The program is an effort spearheaded by the national government to achieve universal electrification in Brazil. The 2000 census revealed that 13 million people lacked electricity, mostly in rural and isolated areas, which were targeted by the program. Where implemented, the *Luz para Todos* was shown to create improvements in every component of the Human Development Index – health, education, and living standards (da Silveira Bezerra, et al. 2017). It also showed success at spurring economic development in the regions where it was implemented (Pereira, et al. 2010). Further, *Luz para Todos* has not suffered accusations of corruption or mismanagement. Ultimately, the available evidence points to interactions with the *Luz para Todos* program as an example of a positive interaction with government that generally leads to good outcomes. Finally, while *Luz para Todos* is a federal program, it is coordinated with local officials to identify households in the community in need and uses for the electric power they would receive, meaning that the program represents an interaction with multiple levels of government. Given these features and the fact that the data from the program is available at a municipal level, it seemed particularly suitable to this analysis.

2.3 Data

To measure rates of blank voting, I collected electoral data from the Brazilian Institute of Geography and Statistics between 2002 and 2018. For each year, I calculate the percentage of

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total votes cast in each municipality that were blank. Elections cycles in Brazil are two years long, with the elections taking place in the final quarter of the year. Election cycles alternate between two types of races. In 2002, the offices up for election were Governor and State Deputy, which are state level offices, and Senator and Federal Deputy, which are federal level offices. In 2004, two local offices – Mayor and City Counselor – were up for election. The subsequent years cycle between these two sets of offices.

To measure recipient rates of infrastructure at the same level of the electoral data, the municipal level, I use the data published from the *Luz para Todos* program, which are recorded as the number of recipient households per municipality in a calendar year. First, I sum the total number of households that received electricity through the program for each election cycle. Then, using data from the 2000 census on the total number of households in a municipality and the number of those that had electricity, I establish the initial percentage of households in the municipality that had electricity. I then calculate the percent improvement brought about by the *Luz para Todos* program over the course of each election cycle. This requires determining the percent of the households that had electricity at the start and end of each election cycle and then using the standard calculation for improvement percent. This method has an important advantage of simply taking the percent of households that received electricity through the program in that election cycle.

My expectation is that there is a difference in the impact of the program in municipalities that largely lacked electricity versus municipalities that had almost complete electrification. For example, consider two municipalities: Municipality A has only a 5% electrification rate and Municipality B has a 95% rate. Suppose that as a result of the program, Municipality A ends an election cycle with a 10% rate and Municipality B ends the same election cycle with a 100%

rate. Both municipalities had 5% of their households receive electricity, but Municipality A has a 100% improvement and Municipality B has only a 5.26% improvement. In this way, municipalities with smaller original rates of electrification have greater percent increases for the same percentage of households receiving services. This captures the different realities and levels of need in the different municipalities. Residents of Municipality A would be more likely to notice the program and the community would receive more benefit than that of Municipality B. The percent improvement conversion captures this.

When developing possibly confounding variables, I noted that political explanations are not the only explanations for the rates of blank and voting in Latin America. Generally, explanations for these high rates of legal nonparticipation fall into three categories – institutional attributes of the electoral system, socioeconomic contexts, and political factors (Power and Garand 2007). Institutional attributes include features of the system that make voting more difficult. For example, Brazil's Chamber of Deputies is elected via open list proportional representation, which places a high burden on the voter to select candidates from among lists that occasionally number in the hundreds of candidates. Socioeconomic contexts, such as literacy rates, influence the ability of an individual to understand how to follow correct voting procedures and to gain information about the candidates. Finally, political factors capture discontent and frustration with the political system (Power and Garand 2007). Each of these factors influence rates of invalid and blank voting in Brazil (Power and Roberts 1995).

In order to isolate political motivations for casting blank and invalid votes such as trust or disappointment with government, I have collected control variables that account for institutional and socioeconomic factors. I collected municipal-level data from the 2010 census, which is the closest available census to the years of my analysis. Variables for literacy rates and urbanization

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control for socioeconomic factors. Each of these factors could affect the ability of an individual to correctly fill out a ballot, make an informed choice, or have any connection to the political system. They also measure some amount of political connectedness, which is also related to how many households are recipients of an infrastructure project.

To control for institutional factors, I take into account the specific position up for election as well as the year of the election. Citizens might hold certain positions more accountable for infrastructure projects and offices routinely have different rates of blank voting. For example, city councilors average blank voting rates of 1.49% while senators average 12.18%. As such, I have grouped races into federal, state, and local types and included these types as a control variable. Finally, I created a dummy variable for whether the year was 2014 in order to exclude a national event unrelated to infrastructure development that influenced trust in government. In 2013, Brazil experienced massive anti-corruption protests, which demonstrated widespread dissatisfaction with politics in Brazil. While these protests and their fallout certainly had an effect on trust in government, they are largely unrelated to the particular relationship I am trying to measure.

After collecting variables from the 2000 and 2010 censuses, program data from *the Luz para Todos* program, and electoral data for the duration of the *Luz para Todos* program, this analysis contained more than 145,000 entries. This number resulted from the nearly 6,000 municipalities for which I was able to collect data, the eight years of electoral data, and the several offices up for election in each of those years in each municipality.

2.4   Empirical Strategy

In order to test my hypotheses, I have developed the following model specification in Equation 2.1:

Blank Voting = F(Blank Voting$_{t-1}$ + Electrification Improvement$_t$ +

Electrification Improvement$_{t-1}$ + Nearby Average$_t$ + Electrification   (2.1)

Improvement$_t$*Urbanization$_t$ + Control Variables$_t$ + Error$_t$)

- where *Blank Voting* is the rate of blank voting in a particular municipality, race, and election cycle,

- *Blank Voting$_{t-1}$* is the rate of blank voting in a particular municipality and race for the previous election cycle,

- *Electrification Improvement$_t$* is the percent improvement in electrification in a particular municipality during the current election cycle,

- *Electrification Improvement$_{t-1}$* is the percent improvement in electrification in a particular municipality during the previous election cycle,

- *Nearby Average$_t$* is the average percent improvement in electrification for municipalities within 50 kilometers in any cardinal direction for the particular municipality and election cycle,

- *Electrification Improvement$_t$*Urbanization$_t$* is a multiplicative interaction between the percent improvement in electrification in a particular municipality and election cycle and the rate of urbanization of that municipality,

- *Control Variables$_t$* is a vector of control variables for the particular municipality and race during the current election cycle,

- And *Error$_t$* is the stochastic component for the particular municipality, race, and election cycle.

The *Blank Voting$_{t-1}$* term is included because my theory supposes that the infrastructure project will produce a change, and the lagged term will allow me to control for the usual level of blank voting in a municipality. The *Electrification Improvement$_t$* term is the main independent variable, and will be used to test H1, that an increase in this improvement rate will correspond with a decrease in blank voting (through the mechanism of increased trust). The lagged term, *Electrification Improvement$_{t-1}$*, is used to test H3, that the effects of infrastructure development on increased trust will decrease over time. By comparing this term with the term from the current election cycle, I will be able to compare the effects of infrastructure development over time.

The *Nearby Average$_t$* term is used to test H2, that higher rates of electrification improvements in nearby municipalities should further decrease blank voting rates. The term is calculated by identifying municipalities that are within a box that extends 50 kilometers east, west, north, and south of the municipality in question. The electrification improvement rates of these municipalities from the current election cycle are then averaged. Boxes with 25 kilometer and 100 kilometer ranges were tested and returned similar results.

Finally, the interaction term, *Electrification Improvement$_t$*Urbanization$_t$*, is necessary because the *Luz Para Todos* program explicitly targets rural municipalities. Most municipalities that had electrification needs were in rural and isolated areas, so more program resources were focused on rural municipalities. This interaction term prevents issues with bias in the model.

3.   RESULTS

3.1   Results of Main Model Specification

Utilizing all available data on the model specification in Equation 2.1 yields Table 3.1 below.

Table 3.1: Regression Results of Main Model Specification

	Blank Voting Rate
Electrification Improvement	-0.001 (0.002)
Lag Electrification Improvement	-0.002* (0.001)
Nearby Average	-0.018*** (0.003)
Urbanization: Semi-Urban	-0.044 (0.045)
Urbanization: Urban	0.327*** (0.046)
Year 2014	-1.737*** (0.030)
Literacy Rate	0.049*** (0.001)
Race Level: Local	-5.001*** (0.036)
Race Level: State	-2.851*** (0.030)
Electrification Improvement*Semi-Urban	-0.013*** (0.003)

Electrification Improvement*Urban	-0.073*** (0.008)
Lag Blank Voting Rate	0.504*** (0.003)
Constant	1.848*** (0.120)
N	90,042
R^2	0.551
Adjusted R^2	0.551
Residual Std. Error	3.408 (df=90028)
F Statistic	8,515.106*** (df=13, 90028)

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

Because of the interaction term, it is difficult to interpret the coefficient or significance of the main independent variable – *Electrification Improvement* – directly. Instead, Figure 3.1 gives the interaction graph for this model. The interaction graph shows the predicted rate of *Blank Voting* for a given level of *Electrification Improvement*, subdivided by the type of municipality. The red line at the top represents rural municipalities, the blue line in the middle represents semi-urban municipalities, and the green line at the bottom represents urban municipalities. The slopes of these lines show the changes in predicted rates of *Blank Voting* as *Electrification Improvement* increases. Further, the shaded areas around the line show the 95% confidence interval on the predictions. Finally, it is important to note that as *Electrification Improvement* increases to the highest rates, some types of municipalities are predicted to have negative *Blank Voting* rates. This is of course impossible. However, these extreme predictions are a result of the type of data available. Because rural municipalities were targeted, the highest rates of *Electrification Improvement* are exclusively in rural municipalities. In fact, urban municipalities rarely achieve

more than even a 5% improvement because they were not targeted for this program and because of their larger size. Thus, when *Electrification Improvement* reaches nearly 600%, these predictions are more speculative and less meaningful for urban municipalities than they are for rural municipalities.
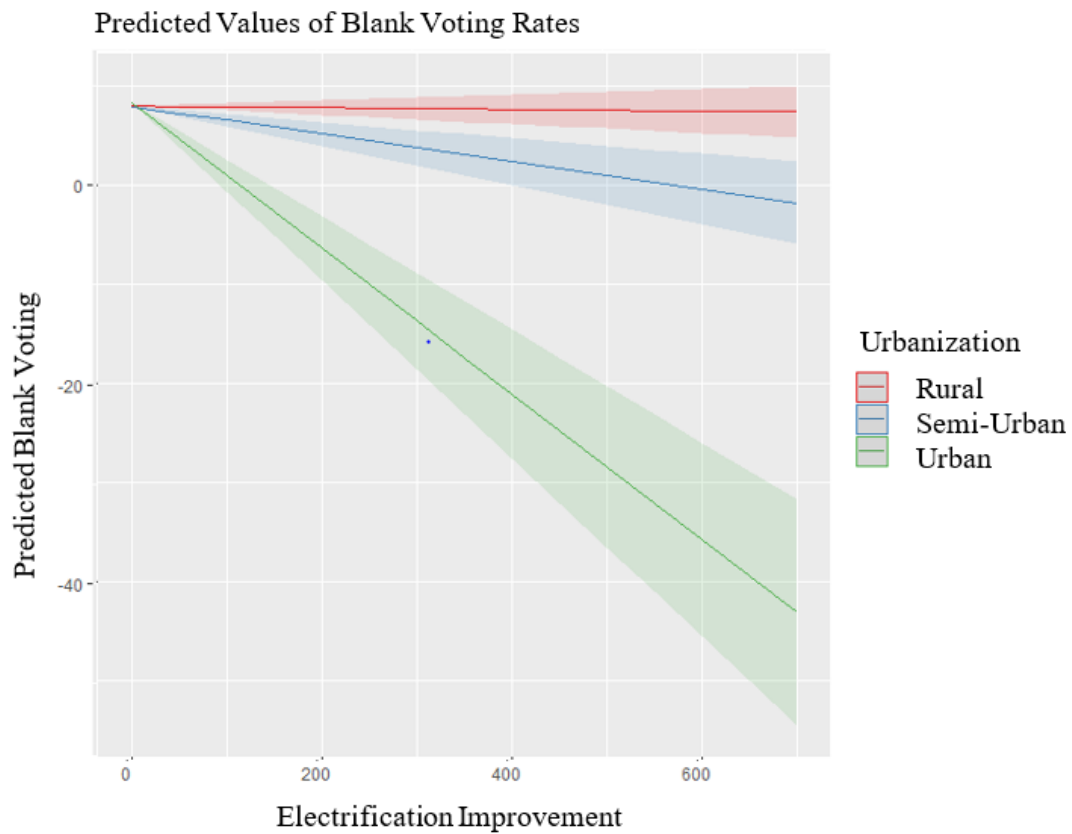

Figure 3.1: Interaction between Urbanization of a Municipality and Electrification Improvement

3.2   Evaluating the Hypotheses

H1: If a larger share of a community is positively impacted by an infrastructure project, then the community will exhibit greater increases in trust in government compared with communities that have a smaller share of people impacted.

Using Figure 3.1, a negative slope would indicate support for H1. This is because a negative slope means that as *Electrification Improvement* increases, the predicted rate of *Blank*

Voting decreases. As demonstrated in Figure 3.1, all municipalities demonstrate a negative slope, which is supportive of H1. However, while the semi-urban and urban municipalities have a more pronounced negative slope, the slope for rural municipalities is much smaller. In fact, the range of values in the confidence interval around the slope never depart from the predicted value when *Electrification Improvement* is zero. In effect, this means that support for H1 for rural municipalities is not statistically significant.

> *H2*: If nearby communities are also positively impacted by an infrastructure project, then the community will exhibit even greater increases in trust in government.

H2 can be more readily interpreted from the regression table in Table 3.1. The *Nearby Average* term has a negative and statistically significant negative coefficient. This means that as the electrification improvement increases in nearby municipalities, the rate of blank voting is further depressed. In particular, with a ten percent increase in the electrification improvement of nearby municipalities, blank voting decreases from the previous election cycle by 0.18 percentage points.

> *H3*: As time passes with no new exposure to completed pieces of infrastructure, the initial gains in trust in government will diminish over time.

Some aspects of H3 can also be readily interpreted from the regression table in Table 3.1. While the coefficient on the *Electrification Improvement$_{t-1}$* term is negative and statistically significant, it is one of the least significant values in the model. Although the coefficient and significance level are not easy to compare directly between the current time and the previous time, Figure 3.2 shows another interaction graph, this time plotting the effect of the *Electrification Improvement$_{t-1}$* on the rates of *Blank Voting*. The slopes are much smaller and the confidence interval is wider. The relatively high confidence interval and small slope are both

support for the diminishing effect of electrification improvement over time. Because election cycles are two years, some of the improvements in the *Electrification Improvement$_{t-1}$* variable occurred nearly four years prior to the current election, which is ample time for other government interactions to supersede a positive interaction with *Luz para Todos*.
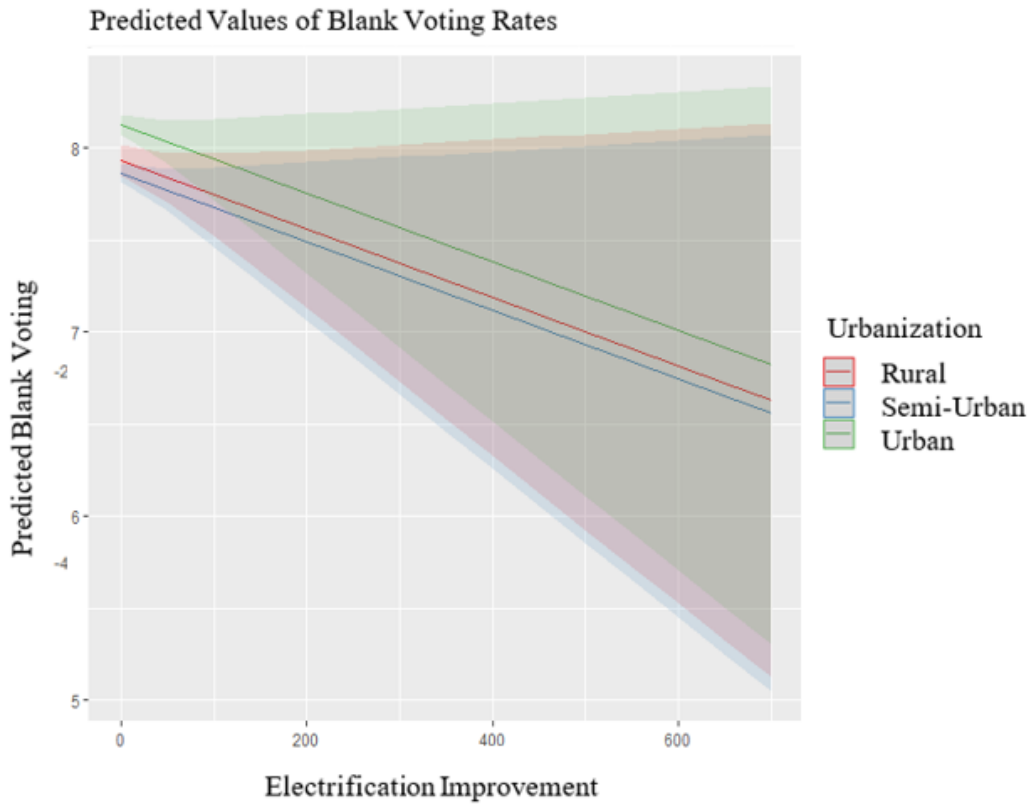

Figure 3.2: Interaction between Urbanization of a Municipality and Lagged Electrification Improvement

Thus, the initial model provides support for all three hypotheses. This provides at least some evidence that governments have routes to improve government trust and therefore institutional performance without an existing base of strong social capital. In contrast to the social capital argument, these results show that some degree of increases in citizen trust in government is possible in the short term through government actions. Therefore, some evidence exists for an evaluative framework of trust in a low-trust environment.

One puzzle in the results is the differing effect of the *Luz para Todos* program on municipalities of different levels of urbanization. Because most households that required electricity were rural, it seemed that the effect of *Electrification Improvement* should have been strongest for rural municipalities, but in fact it is strongest for urban municipalities and the effect on rural municipalities is not statistically significant. Some confounding factors for rural municipalities might exist that are not present for other types of municipalities. For example, rural municipalities experience higher rates of clientelism than urban municipalities, which might undermine the expected relationship (Koster and Eiró 2021). Alternatively, rural municipalities, especially in Northeastern states, often have more acute needs than urban municipalities, making the *Luz para Todos* program insufficient to address those needs (Rocha, et al. 2019). Repeated failures of government to assist poor rural municipalities might not be overcome by one successful program. This question is explored further in an alternative model specification.

3.3 Alternative Model Specifications

In order to further examine the relationship between urbanization and the effect of electrification improvement on blank voting rates, I subdivided the dataset into rural, semi-urban, and urban municipalities. Table 3.2 below shows the regression results of the models.

Table 3.2: Blank Voting Rates Subdivided by Rate of Urbanization

	Blank Voting Rate		
	Rural Municipalities	**Semi-Urban Municipalities**	**Urban Municipalities**
Electrification Improvement	-0.003* (0.002)	-0.015*** (0.003)	-0.041*** (0.010)

Lag Electrification Improvement	-0.0018 (0.0015)	-0.006** (0.002)	-0.002 (0.002)
Nearby Average	-0.004 (0.005)	-0.020*** (0.004)	-0.042*** (0.007)
Year 2014	-2.029*** (0.107)	-1.656*** (0.045)	-1.746*** (0.044)
Literacy Rate	0.046*** (0.004)	0.035*** (0.002)	0.068*** (0.002)
Race Level: Local	-4.787*** (0.124)	-4.601*** (0.052)	-5.433*** (0.054)
Race Level: State	-2.660*** (0.106)	-2.613*** (0.044)	-3.115*** (0.044)
Lag Blank Voting Rate	0.525*** (0.012)	0.506*** (0.005)	0.490*** (0.005)
Constant	1.885*** (0.327)	2.673*** (0.155)	0.813*** (0.209)
N	7,546	37,312	45,184
R^2	0.519	0.532	0.556
Adjusted R^2	0.519	0.532	0.556
Residual Std. Error	3.505 (df=7536)	3.245 (df=37303)	3.525 (df=45175)
F Statistic	1017*** (df=8; 7536)	5292*** (df=8; 37303)	7060*** (df=8; 45175)

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

Because the data has already been subdivided, there is no need for an interaction term in these models, so the hypotheses can be directly checked using coefficients from the regression tables. When looking at only rural municipalities, the *Electrification Improvement* term has a statistically significant negative coefficient. This is supportive of H1 because it indicates that an increase in *Electrification Improvement* is associated with a decrease in *Blank Voting* rates. Further, H3 is supported because the *Electrification Improvement$_{t-1}$* term is also negative, but not

statistically significant and has a smaller coefficient than the term from the current period. Finally, H2 is not supported because while the *Nearby Average* term is also negative, it is not statistically significant. This could be because rural municipalities are further apart and more dispersed, lessening the effect of nearby municipalities. While H1 is not supported for rural municipalities when examining all municipalities together, it is possible that the main model is not able to capture the various aspects of rural municipalities that are unique. Examining only rural municipalities allows for the restricted model to control for the confluence of unique circumstances such as lower education, higher rates of clientelism, and lower monthly earnings that characterize regions that were targeted by the *Luz Para Todos* program.

Semi-urban and urban municipalities show results consistent with the main model. Further, as shown in Table 3.2, semi-urban municipalities have a larger negative coefficient for *Electrification Improvement* than rural municipalities and urban municipalities have a larger negative coefficient than semi-urban municipalities. This is consistent with the more pronounced negative slopes as urbanization increases, as seen in Figure 3.1.

3.4   Turnout as a Measure of Trust

As discussed above, blank voting rates seemed the closest measure that would correspond to trust among the electoral behaviors I considered. Voting is mandatory in Brazil, which could potentially complicate the link between voter turnout and trust in government that is established in the literature. However, penalties for abstention are low in Brazil. As such, I include a secondary analysis using turnout rates rather than blank voting rates as a measure of trust. The model specifications are otherwise the same; however, because trust is associated with increased turnout (as opposed to decreases in blank voting), the expected coefficients are positive rather than negative. The results of the regression are presented below in Table 3.3. Like the blank

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voting model above, I included an interaction term between the electrification improvement and

urbanization variables and as such include an interaction graph in Figure 3.3.

Table 3.3: Regression Results of Turnout Rate

	Turnout Rate
Electrification Improvement	-0.012*** (0.002)
Lag Electrification Improvement	-0.008*** (0.001)
Nearby Average	-0.044*** (0.003)
Urbanization: Semi-Urban	-0.665*** (0.052)
Urbanization: Urban	-1.294*** (0.053)
Year 2014	-0.715*** (0.035)
Literacy Rate	0.026*** (0.002)
Race Level: Local	1.661*** (0.038)
Race Level: State	-0.006 (0.032)
Electrification Improvement*Semi-Urban	0.008** (0.004)
Electrification Improvement*Urban	0.064*** (0.010)
Lag Turnout Rate	0.737*** (0.002)
Constant	19.413***

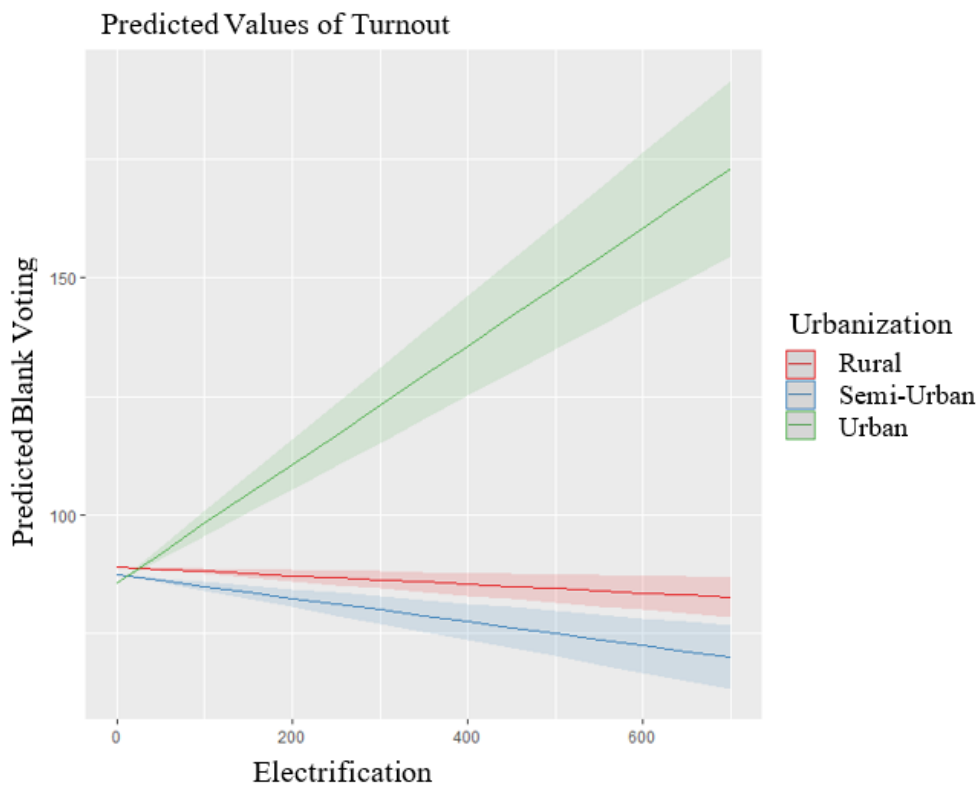|	(0.207)
N	90,042
R^2	0.656
Adjusted R^2	0.656
Residual Std. Error	3.967 (df=90029)
F Statistic	14,280*** (df=12; 90029)

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

Figure 3.3: Interaction between Urbanization of a Municipality and Electrification Improvement

Interestingly, the only municipalities that have the expected relationship are urban municipalities. Rural and semi-urban municipalities exhibit a relationship in the opposite of the expected direction. This gives very limited support for H1, as both rural and semi-urban municipalities contradict expectations. Further, the nearby variable used for testing H2 and the

lagged independent variable used for testing H3 are both negative and statistically significant. Thus, neither H2 nor H3 are supported using this alternative measure of trust. In fact, a statistically significant relationship exists in the opposite expected direction for nearly all indicators for all three hypotheses, with only urban municipalities for H1 exhibiting support. The contradictory results between blank voting and voter turnout as measures of trust are explored further in the discussion section of this paper.

4.   DISCUSSION

An important consideration throughout this project has been that measuring electoral behaviors as a proxy for trust in government is not a direct method of measuring trust. A further complicating factor is that electoral behaviors that are associated with trust have mostly been studied in the United States and Western European democracies. As such, the measures I have used in this project are indirect and have factors that could obscure the relationship I am attempting to uncover. In this section, I will attempt to explain why the results may be different when I use blank voting rather than turnout to measure trust.

One of the most significant complicating factors when using electoral behaviors to measure trust in Brazil is clientelism. Clientelism occurs more frequently in Brazil compared to much of the rest of Latin America, with over 20% of survey respondents reporting it to AmericasBarometer, an international survey about attitudes and beliefs in Latin America (Gonzalez-Ocantos and Oliveros 2019). Clientelism could be a possible explanation for the divergence between some of my theoretical expectations and the results I found.

In clientelist relationships, voters enter into a relationship with candidates where the voter expects access to goods and services in exchange for their vote. Clientelism undermines traditional democratic expression and is usually targeted and poorer and more vulnerable voters (Rocha, et al. 2019). Thus, in the same places the *Luz Para Todos* program is targeted, clientelism is more frequent. Programs that reduce vulnerability of poor voters, which *Luz Para Todos* does, also reduce clientelism voting practices (Bobonis, et al. 2017). Following the improvement in electrification in municipalities, I would then expect to see a reduction in clientelist voting practices.

This could explain why rural municipalities did not have statistically significant decreases in blank voting compared with urban and semi-urban municipalities when all municipalities were tested together. If the blank voting rate was artificially low before the *Luz Para Todos* program because more individual voters were allying themselves with a clientelist candidate, then a possible increase in trust would be masked when measured with rates of blank voting. There is some evidence that blank voting was artificially lower as the rate of blank voting was noticeably lower for local candidates, which are more likely to participate in clientelist practices compared with higher level candidates (Rocha, et al. 2019). After the *Luz Para Todos* program was implemented, I would expect rural voters to have less need to support clientelist candidates and have more freedom to vote as they wished. Thus, the results are actually biased in favor of not finding a relationship for rural voters. Because the model that was restricted to just rural municipalities found a relationship, I can be more confident that the relationship exists.

Clientelism could also be an explanation for why rural and semi-urban municipalities exhibited decreases rather than increases in voter turnout when electrification improvement increased. When ballots are secret, as Brazil's are, clientelist candidates can only observe whether or not an individual votes and cannot see what their vote is. If the vulnerability of poor voters is reduced through the *Luz Para Todos* program, then they have less need to support clientelist candidates. As such, their decision on whether or not to vote might be altered to prefer not voting if they are not relying on goods and services from a clientelist candidate. Thus, voter turnout might decrease despite increased trust in government because voter turnout could have been artificially high prior to the *Luz Para Todos* program.

Clientelism can also influence voter turnout through the mechanism of vote buying. Some clientelist candidates engage in a type of election fraud where individual voters are

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encouraged to transfer their electoral registration to a new district and support the clientelist

candidate in the new district. These candidates affect voter turnout by inducing more voters from

nearby districts to enter into the electorate in favor of the candidate (Hidalgo and Nichter 2016).

Thus, some smaller areas actually have an inflow of voters because of this practice, which would

result in artificially high rates of voter turnout. Programs that reduce clientelist practices actually

decreased the size of the electorate in municipalities where this was occurring (Hidalgo and

Nichter 2016). Thus, if the *Luz Para Todos* program reduces clientelist practices, a decrease in

voter turnout would occur, which could mask an increase in trust.

If clientelism is the reason that some outcomes are contrary to expectations, then it would

make sense that voter turnout was more effected than blank voting rates. Brazil has a secret

ballot, so clientelist candidates can only monitor whether or not someone voted. Because turnout

is the metric that candidates can monitor, it would be more affected by clientelist voting

behaviors.

This results in this project could be supported or refuted with additional research. For

example, in order to untangle the relationship between voting behavior and trust in government,

future studies could examine how clientelism and trust in government interact to influence voting

behavior. This work could verify how justifiable using electoral behaviors as indicators of trust

ultimately is. Further, qualitative information like interviews with *Luz Para Todos* recipients

could either reinforce or refute my theoretical arguments. Understanding how recipients

perceived the program and the government's involvement in it could shed further light on the

relationship between infrastructure projects like *Luz Para Todos* and government trust.

CONCLUSION

Support for my theoretical arguments is mixed and more research is necessary to untangle the relationship between infrastructure development and citizen trust in government. When using blank voting rates as a measure of trust in government, my hypotheses are largely supported; however, that support vanishes when using turnout rates as a proxy for citizen trust in government. One explanation for the inconsistency between these results is clientelism, which distorts the relationship between citizen trust and preferences and their electoral behavior.

Further research could clarify this relationship by collecting qualitative data, such as interviews with recipients of the *Luz Para Todos* program. Future researchers could also incorporate measures of clientelism in order to understand its effect on electoral behavior and trust in government.

It is clear that the transactive nature of trust in government that serves as the theoretical underpinnings for my arguments must be refined to some degree in order to apply to low trust environments. The mixed results in this paper show that more research is necessary in order to understand in what conditions a transactive understanding of trust in government applies and in what conditions a more nuanced approach is necessary. Scholarship on trust in government has matured considerably over the past few decades in countries such as the United States. It is my hope that this paper is part of a growing body of literature on trust in government in low trust environments like Brazil.

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