Colonial Origins of Voting Preferences: Evidence from Brazil

Ali Reza Rahimi *
Freie Universität Berlin

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Abstract

This paper examines how Brazil's colonial and slavery legacies continue to shape contemporary political preferences, with a focus on electoral support for the Workers' Party presidential candidates. As the largest importer of enslaved Africans and the last country in the Americas to abolish slavery, Brazil developed enduring regional and racial hierarchies embedded in its institutional and political structures. Using a municipality level dataset that combines historical slave population data from the 1872 census, contemporary Quilombola community records, and presidential election results from 2002–2022, I analyze the long-term impact of slavery intensity, Afro-descendant resistance, and colonial boundaries on voting preferences. To identify causal effects, I employ instrumental variable approaches and spatial regression discontinuity design around the Tordesillas Line and the Dutch Brazil border. The results show that municipalities with higher historical concentrations of enslaved populations display lower support for the Workers' Party, consistent with elite persistence and conservative dominance. In contrast, areas with larger Quilombola populations exhibit greater support for this party, reflecting traditions of resistance and marginalization. Furthermore, sharp political divides across colonial boundaries indicate that institutional legacies from Portuguese and Dutch colonial regimes still influence Brazil's political preferences.

Keywords: Brazil, colonization, slaves, Quilombolas, voting, presidential elections, Tordesillas Line, Dutch Brazil, regression discontinuity design

*Freie Universität Berlin, Garystr. 55, 14195 Berlin, ali.reza.rahimi@fu-berlin.de.

Contents

1 Introduction

Brazil's political geography is profoundly shaped by its colonial and slavery past. As the largest importer of enslaved Africans in the Americas and the last country to abolish slavery, Brazil developed a deeply stratified society rooted in racial and economic hierarchies. Portuguese colonial rule was organized around extractive institutions that concentrated land ownership, relied heavily on coerced labor, and reinforced racial divisions. While enslaved populations were densely concentrated in the sugar and mining regions of the Northeast and Southeast, many escaped to form Quilombos—autonomous settlements that became enduring centers of Afro-Brazilian identity and resistance. These historical structures have left indelible marks on Brazil's institutions, inequality, and regional development (Klein and Luna, 2009).

A large body of research demonstrates that colonial and slavery-based institutions have long-term effects on development and governance. Acemoglu et al. (2001) show that extractive colonial institutions constrained long-run growth by fostering inequality. Engerman and Sokoloff (2002) argue that plantation-based economies generated rigid hierarchies that shaped access to education and political power. In Latin America, Dell (2010) finds that coercive labor institutions like the mita system in Peru and Bolivia continue to negatively impact education and income. Similar patterns are documented by Naritomi et al. (2012) within Brazil, where the colonial history of different regions influences modern institutional quality. Despite the extensive literature on inequality and institutions, little is known about how colonial legacies affect contemporary political preferences, particularly in countries like Brazil, where historical divisions of race and class closely align with modern partisanship.

This paper addresses this gap by examining how historical slavery intensity, the persistence of Quilombola communities, and the legacy of colonial boundaries influence the contemporary voting preferences in Brazil. Using the historical data of slavery from the 1872 census, contemporary Quilombola population records, and presidential election results from 2002–2022, I construct a municipality level dataset to explore these relationships. To identify causal effects, I employ multiple instrumental variables for slavery intensity, and apply spatial regression discontinuity design (RDD) around two colonial boundaries, the Tordesillas Line and the Dutch Brazil border, to capture the discontinuities in the vote share of Workers' Party presidential candidates. The empirical findings demonstrate persistent political effects of Brazil's colonial and racial geography. Municipalities with higher historical share of enslaved populations show significantly lower electoral support for the Workers' Party, consistent with elite continuity and conservative dominance. Conversely, areas with larger contemporary share of Quilombola pop-

ulations show higher support for this party, reflecting long-term patterns of political resistance and marginalization. Moreover, RDD analysis reveals sharp discontinuities in the vote share of Workers' Party across colonial boundaries, suggesting that institutional legacies from Portuguese and Dutch rule continue to shape the political preferences.

The rest of this paper is structured as follows: Section 2 provides historical background. Section 3 reviews the relevant literature. Section 4 explains the hypotheses. Sections 5 and 6 introduce the dataset and the empirical methodology, respectively. The empirical results are presented in Section 7, and the conclusions are drawn in Section 8.

2 Historical Background

2.1 Discovery of Brazil and Natural Resources

The early European colonization of the Americas and other parts of the world was marked by several territorial disputes driven by competition for land, resources and strategic dominance. These contests played a key role in shaping the geopolitical landscape of the colonial world. The first major territorial dispute in the Age of Exploration involved Spain and Portugal, two of the most powerful maritime nations of the time. The Treaty of Tordesillas was signed in 1494 between Spain and Portugal to resolve territorial disputes following Christopher Columbus's return from the Americas in 1493. The treaty established a demarcation line 370 leagues west of the Cabo Verde Islands, effectively splitting the newly discovered territories outside Europe between the two powers. Spain received the lands to the west of the line, and Portugal gained the lands to the east (Herzog, 2015).

The Treaty of Tordesillas played a key role in Portugal's expansion in the eastern region of South America, particularly in securing its claim to Brazil. Brazil was officially discovered in April 1500, when a fleet commanded by Portuguese diplomat Pedro Álvares Cabral, on its way to India, landed on the coast of what is now Brazil. Although Portugal had initially focused on establishing trade routes to Asia and Africa, Cabral's landfall on the Brazilian coast opened new colonial opportunities for Portugal in the Americas (Nowell, 1936). Historians argue that while the discovery was likely accidental, it aligned well with Portugal's territorial rights under the Treaty of Tordesillas. Brazil's wealth in natural resources, particularly timber and later sugar, prompted the Portuguese Crown to invest more heavily in colonization as the 16th century progressed. Portuguese Seaborne Empire initially prioritized Asia but rapidly expanded to include Brazil, thanks to its agricultural potential. The introduction of large-scale sugar

plantations in the early 16th century became a major economic driver for Portugal, creating a need for African slaves and solidifying Brazil's role as a critical part of the Portuguese empire (Marques, 2019).

Portuguese colonial project in Brazil differed from Spain's colonization of other parts of the Americas due to its more decentralized approach. While Spain established highly structured colonial governance, Portugal relied on the donatary captaincy system, granting large landholdings to noblemen who were responsible for the economic development and defense of their territories. However, many captaincies failed due to isolation and indigenous resistance, leading the Portuguese Crown to centralize control over time (Johnson Jr, 1972). The treaty of Tordesillas established a precedent for dividing newly discovered territories between European powers, leading to future negotiations such as the Treaty of Zaragoza in 1529, which extended the demarcation to the Pacific (Duve, 2013). Treaty of Tordesillas not only shaped early modern imperial formations but also had a long-lasting impact on the global balance of power. The Portuguese discovery of Brazil confirmed Portugal's ability to compete with Spain in the Americas, while the sugar-based economy in Brazil made the colony one of the wealthiest regions in the Portuguese empire by the 17th century (Russell-Wood, 1998).

The economy of colonial Brazil was primarily shaped by its natural resources and labor systems, with cycles of economic activity largely driven by external demand for Brazilian exports. Initially, the Portuguese focused on the extraction of brazilwood, valued in Europe for its red dye, but by the mid-1500s, sugarcane cultivation became the dominant economic activity (Russell-Wood, 1998). Sugar plantations were established on a large scale in the northeastern regions, particularly in Pernambuco and Bahia, turning Brazil into one of the world's largest sugar producers. To meet the labor demands of these plantations, the Portuguese initially enslaved indigenous peoples, but as their numbers dwindled due to disease and resistance, they increasingly turned to the transatlantic slave trade. Between the 16th and 19th centuries, millions of enslaved Africans were forcibly brought to Brazil, making it the largest destination for African slaves in the Americas. This system of slave labor underpinned the colony's economy and solidified a rigid social hierarchy based on race and class (Russell-Wood, 1998).

In the late 17th century, the discovery of gold in Minas Gerais drastically altered Brazil's economic focus. The gold rush attracted settlers from both Brazil and Portugal, leading to rapid urbanization in mining towns and shifting the colony's economic center from the coastal sugar-producing regions to the interior. The Portuguese Crown imposed heavy taxes on gold production, increasing royal control and enriching both Portugal and the colonial elite (Russell-

Wood, 1998). Additionally, the discovery of diamonds in the early 18th century further boosted Brazil's wealth. However, by the late 18th century, as gold and diamond production declined, Brazil's economy began to struggle, exacerbating tensions between the colony and the Portuguese Crown, which contributed to eventual movements for independence in the early 19th century (Russell-Wood, 1998).

Brazil's economy and trade were also heavily influenced by its strategic trade ports along the Atlantic coast. Key ports like Salvador, Recife, and later Rio de Janeiro became vital hubs for the export of sugar, gold, and other commodities. These ports facilitated trade with Europe, Africa, and other Portuguese colonies, making Brazil an essential link in the Portuguese Empire's global trade network (Russell-Wood, 1998). Salvador, the capital of colonial Brazil until 1763, served as the main center for sugar exports, while Rio de Janeiro grew in importance during the gold boom, becoming the gateway for goods traveling to and from the mining regions in the interior. These coastal cities were not only centers of commerce but also points of entry for enslaved Africans, reinforcing the importance of the ports in the colony's economy. By the early 19th century, as Rio de Janeiro became the political and economic capital, the trade ports remained crucial to Brazil's economic vitality, even as the focus began to shift toward independence (Russell-Wood, 1998).

2.2 Socioeconomic Disparities

Brazil's modern history is deeply intertwined with issues of socioeconomic disparity and racial categorization, both of which are legacies of its colonial past. These disparities are the result of centuries of systemic inequalities that began during European colonization, were solidified during the era of slavery, and have persisted through various political and economic developments. To fully understand the current racial and socioeconomic dynamics in Brazil, it is necessary to explore the historical roots of these issues, the impact of slavery, and the enduring role of racialized class structures. The economy of colonial Brazil was based on exploitation of the land and forced labor. Indigenous peoples were initially enslaved to work on plantations, but by the mid-16th century, African slaves became the primary labor force due to the decimation of native populations by disease and conflict. The enslaved population was forced into grueling labor on sugar, coffee, and mining plantations, under extremely harsh conditions (Klein and Luna, 2009). This early period of Brazil's economic development shaped the deep racial and class divides that persist today. The colonial economy thrived on the exploitation of Black labor, while European-descended landowners amassed wealth and power, consolidating a rigid social hierarchy that positioned whites at the top and Africans and indigenous peoples at the

bottom. The colonial system also entrenched a plantation economy that concentrated wealth and land ownership in the hands of a few white elites. Land, which was the primary source of wealth, was distributed through a system known as sesmarias, in which vast tracts were given to Portuguese nobility and colonial administrators. The distribution of land remained deeply unequal, and even after slavery was abolished, this pattern of land ownership persisted, fueling further inequality (Naritomi et al., 2012).

Brazil was one of the last countries in the world to abolish slavery. However, the legacy of slavery did not disappear with liberation. Freed slaves were left without resources, property, or institutional support, forced to compete in a labor market that was already stacked against them. With no economic base, many formerly enslaved people remained trapped in poverty, often continuing to work on the same plantations under exploitative conditions (Naritomi et al., 2012). At the same time, Brazil's elites sought to "whiten" the population through state policies that encouraged European immigration. Millions of Europeans, primarily from Italy, Germany, and Portugal, were brought to Brazil to work in agriculture, industry, and urban trades. These new immigrants were provided with opportunities to climb the social ladder, often receiving land and resources that were systematically denied to Black and indigenous populations (Lesser, 2013). The underlying idea, fueled by racist ideologies, was that European immigration would "improve" Brazil's racial composition and reduce African and indigenous influences. As a result, Brazilian society developed a racialized class structure where whiteness was associated with wealth, privilege, and power, while Blackness and indigeneity were linked to poverty and marginalization. Though slavery had ended, the racial caste system that placed Afro-Brazilians and indigenous peoples at the bottom remained entrenched in economic, political, and social structures (Lesser, 2013).

One of the key ideologies that has shaped Brazil's understanding of race is the so-called myth of racial democracy. This concept, popularized in the mid-20th century, suggests that Brazil, unlike other Western nations such as the United States, had achieved a harmonious, racially integrated society, free from racial prejudice. This myth was propagated by influential figures like sociologist Gilberto Freyre, who argued that Brazil's history of racial mixing (miscegenation) had created a uniquely tolerant society (Needell, 1995). In reality, however, the myth of racial democracy has served to obscure the deep racial inequalities that persist. While Brazil may have a more fluid concept of race than in other countries, with significant intermarriage between different racial groups, this does not equate to racial equality. In fact, the emphasis on miscegenation often masked the ways in which Afro-Brazilians and indigenous people were subjected to systemic discrimination and marginalization (Needell, 1995). Despite the

outward appearance of racial harmony, Afro-Brazilians continued to face significant barriers to social mobility, access to education, healthcare, and political representation. The myth of racial democracy made it difficult to address these issues because it denied the existence of racism, framing inequality as a product of class rather than race. However, racial and class disparities in Brazil have always been deeply intertwined, with Black and brown Brazilians disproportionately represented among the poor (Agier, 1995; Twine, 1998).

The 20th century saw Brazil undergo rapid urbanization and industrialization, transforming it from a primarily agrarian society into one of the largest economies in the world. However, the benefits of this economic development were distributed unevenly, reinforcing existing racial and class inequalities (Fix and Arantes, 2022). During the economic boom of the mid-20th century, many Afro-Brazilians and poor rural migrants moved to urban areas in search of jobs. However, these populations often ended up in precarious, informal employment or were pushed into the peripheries of cities, living in favelas—improvised urban slums with limited access to infrastructure or services. At the same time, white and wealthier Brazilians benefited from industrial expansion and state-backed development projects that increased social mobility for the middle and upper classes (Fix and Arantes, 2022). The disparities in wealth and opportunity were stark, with wealthy elites controlling much of the country's political and economic power, while poor and predominantly nonwhite populations struggled with poverty, unemployment, and a lack of basic services. The urbanization of poverty in Brazil, which disproportionately affected Afro-Brazilians, reflected broader patterns of racialized inequality (Twine, 1998).

Today, Brazil remains one of the most unequal countries in the world, with profound disparities in income, wealth, education, and health outcomes that disproportionately affect Black and brown Brazilians. According to the Brazilian Institute of Geography and Statistics (IBGE, 2023), Afro-Brazilians (including those who identify as preto, or Black, and pardo, or mixed-race) make up more than half of the population, but they are vastly overrepresented among the poor and underrepresented in positions of power and wealth. Afro-Brazilians, on average, earn about half of what white Brazilians make and are more likely to live in favelas or informal housing. They also face higher rates of unemployment, lower educational attainment, and worse health outcomes, including higher rates of maternal mortality and violent death. Access to higher education has traditionally been limited for Afro-Brazilians, though recent affirmative action policies in public universities have sought to address this imbalance (Klein and Luna, 2009). The persistence of racial inequality has led to growing movements for racial justice in Brazil, particularly since the 1980s, with Afro-Brazilian activists challenging the myth of racial democracy and pushing for policies that address systemic racism. This includes affirmative

action, land rights for Quilombolas, and increased political representation for Afro-Brazilians (Silva Martins et al., 2004). The socioeconomic disparities and racial inequalities that exist in Brazil today are the result of a long history of colonialism, slavery, and post-colonial policies that entrenched racialized class hierarchies. Although Brazil's racial landscape is often described as more fluid than other countries, race remains a key determinant of economic opportunity and social mobility. These issues continue to shape the lives of millions of Brazilians, with Afro-Brazilians bearing the brunt of systemic inequality. Efforts to address these disparities are ongoing, but the deeply rooted nature of these historical injustices makes the path to true racial and economic equity a complex and challenging one (Silva Martins et al., 2004).

2.3 Political System and Voting Behavior

Brazil has a long and complex political history, evolving from a monarchy to a federal republic with a democratic constitution. Brazil became independent from Portugal in 1822, and at first the country was ruled by an emperor. This period lasted until 1889, when the monarchy was toppled and the First (Old) Brazilian Republic was established (Burns, 1993). Despite being a republic, the political system was characterized by clientelism, corruption, and limited voting rights, while the wealthy elite dominated politics. The First Brazilian Republic continued until 1930, when Getúlio Vargas came to power through a coup. The years from 1922 to 1930 posed a direct challenge to the dominance of the rural oligarchy, a struggle that was finally successful in 1930. During this period, the main economic activities, especially the cultivation, processing and export of coffee, played a central role in the economy. The booming coffee industry contributed to significant economic growth, especially in the southeastern states (Burns, 1993). Getúlio Vargas expanded the powers of the federal government after coming to power, by empowering existing agencies to regulate agriculture, exchange rates and commodity prices and creating new agencies to oversee national policies in education, health, labor, industry and trade. He also took a more pro-labor stance by expanding labor protections and granting educated women the right to vote, which reflected his regime's efforts to increase the state's involvement in society. His second term came to an end with his suicide, marking a dramatic moment in Brazilian politics (Williams, 2001). After a period of democratic experimentation, the military took control in a 1964 coup and established a dictatorship that lasted until 1985. The military dictatorship relied on rapid industrialization, capital accumulation and violent repression to maintain control. While the economy grew from 1969 to 1974, the regime's failures became apparent in the mid-1970s, exacerbating old problems and creating new ones. Brazil returned to democracy in 1985, but the new governments also proved incapable of solving the main problems, with the exploitation

of the Amazon and worsening social conditions exposing their moral weaknesses (Burns, 1993).

In 1988, Brazil adopted a new constitution that established the country as a federal republic with a presidential system. The president, who acts as both head of state and head of government, is elected by the popular vote for a four-year term, with the option of one re-election. The constitution guarantees a multi-party system, freedom of the press and the protection of civil liberties. The constitution defines the country as a federal republic consisting of 26 states and one federal district. The government is divided into three branches: the executive branch, led by the president; the legislative branch, consisting of a bicameral Congress with the Federal Senate (81 members) and the Chamber of Deputies (513 members); and the judicial branch, headed by the independent Federal Supreme Court (C. Souza, 2005; Rosenn, 2005). Brazil holds regular elections for the executive and legislative branches of government at federal, state and municipal level. Elections are held every four years, with presidential and legislative elections usually taking place in the same year, followed by state and municipal elections two years later. The presidential elections in Brazil are of particular importance and attract a great deal of public attention. They take place every four years in a two-round system. If no candidate receives an absolute majority (more than 50%) of the votes in the first round, the two leading candidates compete against each other in a second round (The Brazilian Report, 2020).

The presidential candidates come from a wide range of political parties, reflecting Brazil's multi-party system. In recent decades, the presidential election campaign has often been a battleground between left-wing and right-wing political parties, with economic and social issues playing a key role in the debates. The most prominent political parties include the Workers' Party (PT), the Brazilian Social Democracy Party (PSDB), and the Brazilian Democratic Movement (MDB), among others. The PT, a left-wing party founded by Luiz Inácio Lula da Silva, focuses on social equality, workers' rights, and anti-poverty measures. Its policies emphasize public welfare programs like Bolsa Família, a social welfare initiative. The PSDB, traditionally center-right, has historically promoted market-oriented economic policies, privatization, and fiscal responsibility, though its influence has waned in recent years. The MDB, known for its centrist, pragmatic approach, has played a significant role in forming coalitions but often shifts its support based on political convenience (Sandes-Freitas and Bizzarro-Neto, 2018). In recent years, Brazil has also seen the rise of right-wing and far-right parties, such as the Social Liberal Party (PSL) and its offshoot, the Liberal Party (PL), which gained prominence with the election of Jair Bolsonaro in 2018. These parties generally advocate for conservative social values, deregulation, and free-market economic policies. Coalitions are a critical aspect of Brazilian politics due to the country's fragmented party system. Presidents often rely on coalitions to

build majorities in Congress, leading to complex alliances between ideologically diverse parties. Currently, Lula's PT leads a leftist coalition that seeks to address social inequality, while conservative coalitions typically focus on economic liberalization. These competing agendas reflect the broader ideological divide shaping Brazil's political discourse (Gethin and Morgan, 2021).

Brazil's political landscape is deeply divided, with voting behavior shaped by regional, socioeconomic, racial, and religious factors that have shifted over time due to economic conditions, corruption scandals, and social issues. The wealthier Southeast and South, including cities like São Paulo and Rio de Janeiro, tend to favor centrist or right-wing candidates prioritizing economic liberalization, reduced government intervention, and lower taxes, as seen in their support for Jair Bolsonaro in 2018. In contrast, the poorer Northeast, a PT stronghold, has historically supported left-wing candidates like Lula da Silva, who championed social welfare programs such as Bolsa Família to reduce poverty. Over the past two decades, the Labor Party has transformed from a party of the young, highly educated, and high-income elite of the south of the country to a party of the poor and less educated voters, who are increasingly found in the deprived region of the northeast (Gethin and Morgan, 2021). The Amazon region in the North shows mixed voting behavior, with environmental issues and indigenous rights clashing with right-wing calls for economic development through relaxed regulations. Class divides also influence voting, with wealthier Brazilians leaning toward the right and lower-income voters supporting leftist parties advocating for social programs. The middle classes have played a key role in producing political polarization and an overwhelming political turn that culminated in the election of a far-right president in 2018 (Costa, 2022). While Afro-Brazilians and indigenous groups have traditionally supported the PT's racial equality and affirmative action policies, some nonwhite voters have shifted to the right, drawn by conservative social values, evangelical Christianity, and Bolsonaro's tough stance on crime. The rise of populism and anti-establishment sentiment, particularly Bolsonaro's success in 2018, reflected widespread disillusionment with the political system amid corruption scandals like Lava Jato. Evangelical Christians, a growing and influential demographic, have bolstered right-wing candidates by supporting socially conservative views on issues like abortion and family values. Finally, economic concerns, particularly unemployment, inflation, and public services, continue to shape the political preferences of voters, with right-wing parties advocating market reforms and austerity, while the left focuses on expanding social programs to address inequality (Gethin and Morgan, 2021).

3 Literature

The relationship between colonial institutions and contemporary development outcomes has been a central focus of comparative political economy. Pioneering studies have demonstrated that the type of institutions established during colonial rule shaped the political and economic trajectories of former colonies. Acemoglu et al. (2001) argued that colonial powers designed institutions based on settler mortality, producing highly divergent development paths. In regions where extractive institutions were imposed, local elites consolidated power through systems of coerced labor, rigid hierarchies, and exclusionary governance, all of which produced persistent inequality. Similarly, Engerman and Sokoloff (2002) showed that New World colonies with plantation-based economies and high inequality developed institutions that limited access to education, property, and political power. These patterns remain visible today.

Empirical research has reinforced the long-run impact of colonial and slavery-based institutions across Africa, Asia, and the Americas. Banerjee and Iyer (2005) demonstrate that landlord-based colonial land revenue systems in India are linked to inferior infrastructure and lower public goods provision today. In Latin America, Dell (2010) shows that areas exposed to the mita system of forced mining labor in Peru and Bolivia continue to suffer from worse education and economic performance. Naritomi et al. (2012) provide related evidence for Brazil, linking the colonial histories of different regions to contemporary variations in institutional quality and distribution of land. Meanwhile, Nunn (2008) analyzes how the African slave trade had a negative effect on current economic development.

A growing body of literature uses RDD to isolate the causal effects of colonial institutions by exploiting historical boundaries. Dell (2010) applies RDD to the Mita system boundary in Peru, identifying persistent effects on education and economic performance. Laudares and Caicedo (2023) employ spatial RDD around the Tordesillas Line in Brazil, and find that the slave population in 1872 was discontinuously higher in Portuguese Brazil, and this differential slave rate led to a higher modern income inequality in the country. Beyond Latin America, Grigoriadis and Vitola (2025) use RDD to investigate how historical imperial rule by Sweden and the Polish–Lithuanian Commonwealth shaped long-term socio-economic development in the Baltics. They find that regions formerly under Swedish control exhibit higher economic performance compared to adjacent areas once ruled by the Polish–Lithuanian Commonwealth.

Some studies show that race, ethnicity, migration, and group-based historical experiences significantly influence political preferences, shaping patterns of partisanship, support for redistribution, and ideological alignment across diverse contexts. Grigoriadis and Moschos (2023), in

their study of the 1923 population exchange between Greece and Turkey, show that provinces receiving refugees developed persistent support for left-wing parties due to experiences of marginalization and collective identity formation. Acharya et al. (2016) state that white populations in US counties with higher historical slave concentrations are more likely to identify as Republicans and less likely to support affirmative action. They argue that these racially conservative political attitudes have been transmitted locally across generations. Huber and Suryanarayan (2016) find that higher levels of ethnic inequality in India increase the likelihood that political parties will become ethnically oriented. In Brazil, Mitchell (2018) shows that Afro-Brazilian identity significantly shapes progressive political behavior. These studies collectively underscore that political preferences are shaped not only by class and income, but also by historical experiences of exclusion, displacement, and resistance.

Although existing research in Brazil has examined the colonial origins of inequality and institutional development, little is known about how these historical legacies influence contemporary political preferences. The electoral consequences of slavery, Quilombola persistence, and colonial boundaries, in particular, remain underexplored. This study fills this gap by combining historical data on slavery and Afro-descendant settlements with spatial econometric methods, including instrumental variables and regression discontinuity design, to identify the long-term effects of Brazil's colonial and racial geography on support for redistributive parties, such as the Workers' Party.

4 Hypotheses

Building on insights from the existing literature, I develop two hypotheses that link Brazil's colonial and slavery legacies to its contemporary political preferences. These hypotheses are designed to capture how the spatial distribution of slavery, the persistence of Afro-descendant communities, and the historical colonial borders continue to shape electoral preferences today. I examine these hypotheses in the empirical sections of this paper.

H1: *Municipalities with higher historical concentrations of enslaved populations in 1872 exhibit lower contemporary electoral support for Workers' Party presidential candidates. In contrast, municipalities with a larger presence of Quilombola communities, who are the descendants of escaped slaves, show stronger support for this party.*

The mechanism behind this hypothesis lies in the intertwined historical paths of slavery and resistance in Brazil. Areas with high concentrations of enslaved populations developed eco-

nomic and social systems deeply rooted in inequality, with concentrated land ownership, racial hierarchies, and exclusionary political institutions. These structural conditions persisted after abolition, reinforcing elite dominance and conservative political alignments. As a result, municipalities historically dependent on slavery continue to show lower support for the Workers' Party, whose redistributive and inclusive platform contrasts with the interests of historically privileged groups. On the other hand, enslaved people who fled from these regions often established quilombos, autonomous settlements in remote and less accessible areas, where their descendants, the Quilombolas, continue to live today. These communities, though economically marginalized, have remained socially cohesive and politically active, sustaining traditions of collective organization and resistance. Their historical experiences of exclusion and struggle for land and recognition foster strong identification with parties advocating equality, inclusion, and social protection.

H2: *Crossing the border to the Portuguese Brazil and Dutch Brazil generates a discontinuity in the vote share of Workers' Party presidential candidates.*

The second hypothesis examines how colonial boundaries created long-term institutional and cultural divides that continue to influence political preferences. The Tordesillas Line and the Dutch Brazil border divided territories that developed under distinct colonial systems, each fostering different governance structures, land-use patterns, and social hierarchies. Portuguese Brazil evolved under centralized and extractive institutions that reinforced inequality and elite control, whereas regions influenced by Dutch Brazil followed somewhat different administrative and economic trajectories. These divergent colonial legacies likely persisted through path dependence, shaping local governance, development, and political preferences. If these historical divisions have left lasting institutional and cultural imprints, crossing these colonial boundaries today should result in observable discontinuities in political outcomes. The Regression Discontinuity Design allows for identifying these effects by testing whether municipalities located on different sides of the former colonial borders systematically differ in their support for the Workers' Party. This approach provides evidence on how Brazil's colonial geography continues to structure modern electoral and ideological patterns.

5 Data

I construct a cross-sectional dataset that combines data from contemporary sources, population censuses, election results, as well as a range of geographical and historical sources. The dataset spans more than 5,000 municipalities and covers six presidential elections held between 2002

and 2022. It brings together variables that capture political preferences, socioeconomic and demographic characteristics, and long-term historical and spatial factors. The empirical analysis employs Ordinary Least Squares (OLS), Instrumental Variables (IV), and Regression Discontinuity Design (RDD) models, each of which requires specific variables and controls. This section describes the construction of the dataset and provides an overview of the dependent variable, the main explanatory variables of interest, the socioeconomic, geographical, and historical controls, as well as the instruments and running variables used in the IV and RDD specifications. A description of all variables, their definitions, and data sources is presented in Table A1 in the Appendix, while Table A2 reports the summary statistics for all variables included in the empirical analysis.

The dependent variable in all specifications is the vote share of the Workers' Party (Partido dos Trabalhadores, PT) presidential candidates in the second round of election at the municipality level. The election results are obtained from the Superior Electoral Court (Tribunal Superior Eleitoral, TSE) and provide the official valid vote counts for each candidate in the presidential elections. I calculate the vote share of PT candidate as the ratio of valid votes received by the PT candidate to the total number of valid votes cast for the two candidates competing in the second round (the PT candidate and their opponent) in each municipality and each election year 2002, 2006, 2010, 2014, 2018, and 2022. This variable ranges from 0 to 1 and captures the relative level of electoral support for the PT, allowing me to track both cross-sectional variations and long-term patterns of continuity or change in political preferences over two decades.

I have illustrated the spatial distribution of the presidential candidates' vote share in all Brazilian municipalities in all run-off elections between 2002 and 2022 in Figures A10 and A11. The maps display the share of valid votes obtained by the PT candidates relative to their opponents in the run-off, with darker shades representing stronger electoral support. PT candidates are shown in red, while opposing candidates appear in blue or green, depending on the election year. The figures show a consistent pattern of regional polarization in electoral preferences: the PT's support base is concentrated in the Northeast, North, and parts of the Southeast, whereas the rival candidates perform better in the South and Center-West, regions generally characterized by higher income levels. Although the intensity of support has varied across elections, the underlying geographical divisions have remained remarkably stable. During the 2002–2014 period, under Lula da Silva and Dilma Rousseff, the PT strengthened its dominance in the Northeast and in municipalities with lower socioeconomic indicators, while opposition parties gained strength in the South and in regions with higher income. The 2018 and 2022 elections deepened this polarization: Fernando Haddad and Lula da Silva retained the PT's traditional

strongholds, while Jair Bolsonaro secured broad support in the South, Center-West, and parts of the Southeast. Overall, Figures A10 and A11 illustrate enduring regional divides in Brazilian electoral landscape, reflecting the long-term persistence of socioeconomic and geographic differences in voting preferences.

The main explanatory variable of interest is the percentage of enslaved population in the municipalities recorded in the 1872 census, the last census before the abolition of slavery in 1888. Since Brazil's municipal boundaries have changed significantly since the 19th century, it is not possible to directly match the municipalities of 1872 with their modern counterparts. To make the historical data compatible with modern administrative divisions, I impute the percentage of slaves in 1872 to all municipalities in 2010 that geographically overlap with the historical municipalities. In cases where a single municipality from 1872 was later divided into several modern municipalities, each successor municipality takes on the same historical percentage of slaves. This approach preserves the geographical variation in the distribution of slavery across different regions while adapting the historical measure to the current municipality structure, which serves as the unit of observation in my empirical analysis. As an alternative measure, I use the current percentage of the Quilombola population, which represents officially recognized communities of Afro-descent whose origins can be traced back to quilombos—settlements historically formed by escaped slaves. This variable captures the persistence of Afro-descendant populations in contemporary Brazil and complements the historical measure of slavery by offering a modern demographic perspective on the enduring legacy of slavery. Figure A6 shows the number of slaves in the 1872 municipal boundaries, and Figure A7 shows the Quilombola population in 2022. As these figures illustrate, the Quilombolas today live in regions that are largely different from those of their enslaved ancestors.

To address the potential endogeneity of measures of historical slavery and contemporary Quilombolas, I constructed three instrumental variables that account for exogenous geographical and historical determinants of slavery. The first is a land suitability dummy, indicating whether a municipality is located outside the Legal Amazon and semiarid regions, which were less favorable for plantation agriculture and therefore less reliant on slave labor. The second and third instruments are the distance to the nearest slave trade port and the distance to the nearest colonial mine. Both variables reflect historical access to centers of slave supply and demand that shaped the geographic distribution of slavery but are unlikely to have a direct influence on contemporary political preferences except through their impact on the historical intensity of slavery. Together, these instruments capture exogenous variations in geographical and historical factors that influenced the spread of slavery, while also satisfying the exclusion

restriction required for causal identification.

My dataset also includes a comprehensive set of socioeconomic controls to account for contemporary differences in economic development, education, and demographic composition across municipalities. These variables include GDP per capita, racial composition (color or race), racial fractionalization, school attendance rate, share of the population with higher education, and literacy rate. Together, they capture key aspects of local economic prosperity, human capital, and social diversity that may influence political preferences. Figure A8 illustrates the municipalities by color or race in 2022, while Figure A9 shows the municipalities by GDP per capita in 2021, highlighting substantial regional disparities in income and racial composition. To account for short-term factors affecting the voting preferences in 2022 presidential election, I additionally include variables reflecting the local impact of the COVID-19 pandemic, measured by the cumulative number of confirmed cases, deaths, and vaccine doses at the municipal level. These controls help capture how health policies, government performance, and pandemic-related economic disruptions may have influenced voter behavior in 2022.

My dataset further incorporates a broad range of geographical and historical controls across all model specifications to account for spatial heterogeneity, administrative centrality, and colonial legacies. In the OLS and IV models, these controls capture geographic location, elevation above sea level, urban and political importance, proximity to major administrative and natural features, and the historical influence of Portuguese and Dutch settlement patterns. In the RDD framework, the colonial indicators distinguishing Portuguese and Dutch territories serve as treatment variables, while distances to the historical boundaries—the Tordesillas Line and the Dutch Brazil border—act as running variables that define the assignment mechanism around the discontinuities. The RDD models also include a vector of spatial and geographic covariates, some of which are consistent with those used in the OLS and IV analyses, ensuring comparability across all specifications. To construct the treatment and running variables, I used QGIS to design the shapefiles of Dutch Brazil territories based on Hettema Jr. (1920) and of the Tordesillas Line and Portuguese Brazil territories based on Cintra (2013). I then identified the municipalities located within these historical territories and finally calculated the distance from all Brazilian municipalities to both the Tordesillas Line and the Dutch Brazil border. Figure A4 illustrates the Tordesillas Line, the Donatary Captaincies within Portuguese Brazil, and the extent of Dutch Brazil territories. Incorporating these socioeconomic, geographical, and historical controls allows the analysis to more precisely identify the enduring impact of historical slavery and Afro-descendant persistence on current political preferences.

6 Empirical Methodology

This study begins by estimating a series of Ordinary Least Squares (OLS) regressions to examine the relationship between historical slavery and contemporary political preferences. The dependent variable is the vote share of the Workers' Party presidential candidates, while the principal explanatory variable of interest is the historical share of the slave population, which captures the enduring legacy of slavery on voting preferences. In a complementary set of specifications, this measure is replaced with the contemporary share of the Quilombola population, providing an alternative perspective on the persistence of Afro-descendant communities in shaping electoral outcomes. The baseline OLS equation is formulated as follows:

$$Y_i = \alpha + \beta X_i + \gamma Z_i' + \theta G_i' + \delta_s + \varepsilon_i \tag{1}$$

where Y_i denotes the vote share of the Workers' Party presidential candidate in municipality i. The main explanatory variable of interest, X_i, is measured alternatively as the percentage of the slave population in 1872 or the percentage of the Quilombola population. The vector Z_i' includes socioeconomic controls such as GDP per capita, the share of the White population, a race fractionalization index, the percentage of the population attending school, the share of the population with higher education, and the literacy rate. For the cross-sectional specification using data from 2022, I additionally include the COVID-19 pandemic variables, measured by the cumulative number of confirmed cases, deaths, and vaccine doses. The vector G_i' comprises geographical and historical controls, including latitude, longitude, altitude, a big city dummy, a state capital dummy, distance to the capital, distance to the state capital, distance to the nearest coastline, a Portuguese Brazil dummy, and a Dutch Brazil dummy. The coefficient β measures the effect of the main variable of interest on the Workers' Party vote share, while γ and θ capture the effects of the socioeconomic and geographical-historical controls, respectively. The parameter α is the intercept term, representing the expected vote share when all explanatory variables are equal to zero. Finally, δ_s captures state fixed effects, which control for any characteristics that are unique to each state and do not vary within states, and ε_i is the error term.

To address the potential endogeneity of the main explanatory variable, I employ an Instrumental Variables (IV) specification estimated in two stages. The first stage regression relates the endogenous regressor to the instrumental and control variables, as shown in equation (2):

$$\text{First stage:} \quad X_i = \kappa + \pi W_i' + \gamma Z_i' + \theta G_i' + u_i \tag{2}$$

The predicted values $\hat{X}_i$ from equation (2) are then used in the second stage, where the dependent variable Y_i is regressed on $\hat{X}_i$ and the set of controls, as shown in equation (3):

$$\text{Second stage:} \quad Y_i = \alpha + \beta \hat{X}_i + \gamma Z_i' + \theta G_i' + \varepsilon_i \tag{3}$$

In these equations, Y_i shows the vote share of the presidential candidates in the Workers' Party in municipality i, while X_i represents the endogenous variable, defined either as the historical share of the slave population or as the contemporary share of the Quilombola population. The vector of instruments W_i' includes a land suitability dummy, distance to the nearest slave trade port, and distance to the nearest colonial mine, all of which provide exogenous variation in X_i. The coefficients π capture the effect of the instruments on the endogenous regressor, while β measures the causal effect of the endogenous regressor on the outcome variable. The parameters κ and α are the intercepts of the first- and second-stage equations, respectively, while u_i and ε_i denote the error terms in each stage.

To estimate the discontinuity in political preferences around historical colonial boundaries, I begin with a linear RDD specification. This approach models the relationship between the Workers' Party vote share and the distance to the relevant historical boundary—either the Tordesillas Line or the Dutch Brazil border—while allowing for distinct slopes on each side of the cutoff. The linear specification provides a parsimonious framework for identifying the discrete jump in Workers' Party vote share at the boundary, interpreted as the causal effect of historical colonial affiliation on contemporary electoral outcomes. The linear RDD equation is expressed as follows:

$$Y_i = \alpha + \tau D_i + \beta X_i + \gamma D_i X_i + \theta C_i' + \Delta_g + \varepsilon_i \tag{4}$$

where Y_i represents the vote share of the Workers' Party presidential candidate in municipality i. τ is the coefficient of interest. D_i is the treatment dummy variable that takes the value 1 if the municipality is located within Portuguese Brazil or within Dutch Brazil, while X_i is the running variable with the distance to the relevant historical boundary, either the Tordesillas Line or the Dutch Brazil border. C_i' is the vector of covariates that includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, and distance to nearest mine. The term Δ_g is the fixed effects for group g (state or border segment). Finally, ε_i denotes the idiosyncratic error term.

To assess the robustness of the results to functional form assumptions, I also estimate a quadratic RDD specification, which relaxes the linearity constraint imposed in the previous model. The quadratic version extends the linear equation by including both the squared term of the running variable and its interaction with the treatment variable. This approach allows for potential curvature in the relationship between distance to the boundary and PT vote share, capturing nonlinear spatial trends that the linear model may not capture. The quadratic specification is given by:

$$Y_i = \alpha + \tau D_i + \beta_1 X_i + \beta_2 X_i^2 + \gamma_1 D_i X_i + \gamma_2 D_i X_i^2 + \theta C_i' + \Delta_g + \varepsilon_i \tag{5}$$

In this equation, the additional squared terms capture potential nonlinear effects of distance on both sides of the boundary. As before, τ measures the discontinuity in the PT vote share at the cutoff, interpreted as the causal effect of colonial heritage on contemporary political preferences. Comparing the linear and quadratic specifications helps verify that the estimated discontinuity is not sensitive to the assumed functional form, increasing confidence in the robustness of the results.

A central assumption of the RDD framework is that the covariates change smoothly around the cutoff, so that any discontinuity in the outcome variable can be interpreted as the effect of the treatment rather than as a result of systematic spatial differences. To uphold this assumption, I include a broad set of spatial and geographic controls designed to capture potential sources of discontinuity that are unrelated to the colonial boundaries. These covariates help ensure that the estimated discontinuities in political preferences are not influenced by gradual variation in geography or proximity to infrastructure and administrative centers that might independently shape voting outcomes. Figures A13 and A17 present RDD plots showing how these covariates change around the Tordesillas Line and the Dutch Brazil border, respectively. While several covariates vary smoothly across both historical boundaries, some exhibit visible discontinuities. However, most covariates change gradually around the cutoffs, suggesting that municipalities on either side of the borders are largely comparable in observable characteristics. This pattern supports the overall credibility of the RDD method, indicating that the discontinuities in political preferences are unlikely to be driven solely by spatial or geographic differences.

In the RDD estimations, I use multiple bandwidths around the historical boundaries to assess the robustness of the results and to examine how sensitive the estimated discontinuities are to the chosen spatial window. For the Tordesillas Line, the analysis includes municipalities

located within 1,000 km and 500 km on each side of the boundary, while for the Dutch Brazil border, narrower bandwidths of 600 km and 300 km are used, reflecting the smaller geographical extent of the Dutch Brazil territories. To address potential measurement error and uncertainty in assigning municipalities near the historical borders, I also exclude those located very close to the cutoffs—within 25 km and 50 km of the Tordesillas Line, and within 15 km and 30 km of the Dutch Brazil border. This approach follows the donut RDD approach proposed by Barreca et al. (2016), which removes observations immediately surrounding the cutoff to reduce bias from imprecise treatment assignment or spatial ambiguity. In the context of this study, such exclusions are particularly relevant given that the original colonial demarcations were not mapped with modern precision and contemporary municipal borders do not perfectly align with historical boundaries. Using different bandwidths and exclusion ranges helps ensure that the findings are consistent and robust across alternative model specifications, while balancing local comparability and estimation precision.

In the next RDD specifications, I include state fixed effects and border segment fixed effects for robustness. The inclusion of state fixed effects helps control for unobserved differences across states that may influence electoral outcomes independently of the historical boundaries. Border segment fixed effects further refine the identification strategy by controlling for local geographic and historical characteristics that vary along the length of the boundary. Figures A20 and A21 illustrate how municipalities within the chosen bandwidths around the Tordesillas Line and the Dutch Brazil border are grouped by their respective states, while Figures A22 and A23 show how these boundaries are divided into 10 border segments, with municipalities categorized according to the segment they belong to. Including these fixed effects enhances the robustness of the RDD estimates by ensuring that the estimated discontinuities capture local historical effects at the boundary, rather than broader differences across states or regions.

7 Empirical Results

Table A3 presents the OLS and IV estimates for the relationship between the slave population in 1872 and Lula's vote share in 2002. In the OLS models, the coefficients for slaves are positive and statistically significant across all specifications. The estimated effect decreases slightly when control variables are added. In the baseline model, a one percentage point increase in the share of the slave population is associated with a 0.3 percentage point increase in Lula's vote share. This effect declines to 0.2 percentage points when geographical and historical controls are included, and to 0.1 percentage points once socioeconomic variables are also added. In the IV

models, the coefficient remains positive but decreases as controls are introduced. In the baseline IV specification, a one percentage point increase in the share of slaves is associated with a 0.6 percentage point increase in Lula's vote share, which declines to 0.4 percentage points after including geographical and historical controls and to 0.1 percentage points in the fully specified model with socioeconomic and geographical-historical controls, where the effect is no longer statistically significant. The variable for share of slaves is replaced with the contemporary share of Quilombolas in Table A9 to capture the persistence of Afro-descendant communities and their association with political preferences. Unlike the historical measure, the OLS estimates for Quilombolas are small and statistically insignificant across all specifications, suggesting no clear relationship between the presence of Quilombola communities and Lula's vote share. However, in the IV models, the coefficients are negative and statistically significant across all specifications. In the baseline IV model, a one percentage point increase in the share of the Quilombola population is associated with a 2.4 percentage point decrease in Lula's vote share. This reduction strengthens slightly to 3.1 percentage points when geographical and historical controls are added. The decline in vote share is 2.5 percentage points in the fully specified model that also includes socioeconomic variables.

Table A4 shows estimates for the relationship between the slaves and Lula's vote share in 2006. The OLS estimates show mixed evidence across specifications. The baseline model indicates a small but significant negative relationship, where a one percentage point increase in the share of the slave population corresponds to a 0.05 percentage point decrease in Lula's vote share. When geographical and historical controls are included, the coefficient turns positive but insignificant. After adding socioeconomic controls, the coefficient increases to 0.1 percentage points and becomes statistically significant. The IV models reveal a consistently negative association between slavery and electoral support for Lula. In the baseline IV specification, a one percentage point increase in the share of slaves is linked to a 0.8 percentage point decrease in Lula's vote share. His vote share declines by 0.1 percentage points after accounting for geographical and historical controls and by 0.2 percentage points in the fully specified model with both socioeconomic and geographical-historical variables. In Table A10, the OLS coefficients are positive and statistically significant across all models. In the baseline model, a one percentage point increase in the share of the Quilombola population is associated with a 0.3 percentage point increase in Lula's vote share. The relationship weakens slightly to 0.2 percentage points after adding geographical and historical controls and to 0.1 percentage points once socioeconomic factors are also included. The IV results follow a similar pattern, although the magnitude of the coefficients is larger. The baseline IV model suggests that a one percentage point increase

in the share of the Quilombola population is linked to a 10.6 percentage point increase in Lula's vote share. The increase in vote share is 0.8 percentage points when geographical and historical controls are added, but it becomes insignificant in the full model with socioeconomic controls.

Table A5 examines the relationship between the slaves and Rousseff's vote share in 2010. In the baseline OLS model, a one percentage point increase in the share of the slave population is associated with a 0.2 percentage point decrease in Rousseff's vote share. After incorporating all control variables, the coefficient turns slightly positive, reaching 0.1 percentage points. The IV estimates consistently show negative and statistically significant effects, suggesting that municipalities with higher historical slave shares tend to have lower support for Rousseff. In the baseline IV model, a one percentage point increase in the share of slaves corresponds to a one percentage point decrease in vote share, which is reduced to 0.6 percentage points in the full model including all controls. In Table A11, where the variable of slaves is replaced with the Quilombolas, the estimates for Quilombolas are positive and statistically significant in all specifications, indicating that municipalities with a larger Quilombola population were more supportive of Rousseff in 2010. In the baseline OLS specification, a one percentage point increase in the share of Quilombolas is associated with a 0.3 percentage point increase in Rousseff's vote share. This relationship weakens slightly with the inclusion of additional controls, but remains positive and significant. The IV results reinforce this pattern but with considerably larger magnitudes. In the baseline IV model, a one percentage point increase in the share of Quilombolas is associated with a 9 percentage point increase in Rousseff's vote share. The increase in vote share is 3.1 percentage points when geographical and historical controls are added, and 2.5 percentage points in the fully specified model that also includes socioeconomic controls.

The results for Rousseff's vote share in 2014, presented in Tables A6 and A12, reveal similar but slightly stronger coefficients for slaves and Quilombolas. For the slave population, the OLS estimates remain small, shifting from a 0.2 percentage point decrease in the baseline model to a negligible positive effect after considering all controls. The IV estimates continue to show a negative and statistically significant relationship. A one percentage point increase in the share of slaves is associated with a 1.7 percentage point decrease in Rousseff's vote share in the baseline IV model, and a 1.2 percentage point decline after all controls are included. In contrast, the estimates for Quilombolas remain positive and robust. The OLS coefficients indicate that a one percentage point increase in the share of Quilombolas corresponds to a 0.4 to 0.2 percentage point increase in Rousseff's vote share across specifications. The IV models again show larger effects, with an estimated increase of 11.8 percentage points in the baseline specification and an increase of 2.7 percentage points when all control variables are taken into account.

The relationship between historical slavery and Haddad's vote share in 2018, reported in Table A7, confirms the persistent negative association observed in earlier elections. Municipalities with a higher percentage of slaves in 1872 consistently show less support for the Workers' Party candidate. Although the OLS estimates indicate only a minor and statistically weak relationship, with the coefficient turning slightly positive once all controls are introduced, the IV results show a strong negative effect. A one percentage point increase in the share of slaves is linked to a 2 percentage point decrease in Haddad's vote share in the baseline IV model, and a 1.5 percentage point decrease after incorporating all control variables. On the contrary, Table A13 shows the continuation of a strong positive relationship between Quilombolas and the vote share of the Workers' Party. The OLS results suggest that municipalities with a higher proportion of Quilombolas display greater support for Haddad, with effects ranging between a 0.5 and 0.3 percentage point increase across specifications. The IV estimates confirm and strengthen this pattern, indicating that a one percentage point increase in the share of Quilombolas is associated with a 15.5 percentage point increase in Haddad's vote share in the baseline IV model, and a 4.1 percentage point increase after accounting for all control variables.

The effect of historical slavery and Quilombolas on Lula's vote share in 2022, shown in Tables A8 and A14, is almost the same as in the previous tables. Municipalities with a larger share of slaves in 1872 continue to show lower support for the Workers' Party. While the OLS estimates are small and mixed, the IV results indicate a clear negative association. A one percentage point increase in the share of slaves reduces Lula's vote share by 1 to 1.2 percentage points across the IV specifications. In contrast, the presence of Quilombola communities remains a strong predictor of higher support for Lula. The OLS estimates show moderate positive effects, whereas the IV results suggest substantially larger effects. A one percentage point increase in the share of Quilombolas is associated with a 13.1 percentage point rise in Lula's vote share in the baseline IV model and a 4.4 percentage point rise in his vote share after including all controls.

Across Tables A3–A14, the control variables reveal consistent yet evolving patterns that highlight the socioeconomic and demographic foundations of Workers' Party support in Brazil. In 2002, GDP per capita and literacy rate were positively associated with Lula's vote share, suggesting that the Workers' Party initially gained stronger support in more developed and educated municipalities. From 2006 onward, however, these relationships reverse, with both GDP per capita and literacy rate showing a negative association with the vote share of the Workers' Party. This shift indicates that over time, the party's support is more concentrated in poorer and less educated regions, particularly in the North and Northeast, where its social welfare

policies had the greatest impact. Across all elections, municipalities with a larger proportion of Whites and highly educated populations consistently display less support for the Workers' Party. The positive effects of racial fractionalization and the big city dummy confirm the stronger performance of the Workers' Party in more diverse and urbanized municipalities. For the 2022 presidential election, the inclusion of COVID-19 pandemic controls reveals that higher COVID-19 deaths and cases are associated with weaker support for Lula, while higher vaccination rates correspond with greater support, which highlights the political relevance of public health outcomes.

I have provided the scatter plots in Figures A1 and A2 to illustrate the correlation between the proportion of slaves and Quilombolas and the vote share of the Workers' Party. In Figure A1, the link between the historical share of slaves in 1872 and the vote share of Workers' Party candidates shifts over time. A positive trend appears in 2002, suggesting that municipalities with higher historical slave shares initially showed support for Lula. From 2006 onward, however, the relationship becomes negative, indicating that areas more deeply marked by slavery's legacy have provided less support for Workers' Party candidates. In contrast, Figure A2 shows a consistently positive and strengthening relationship between the share of Quilombolas and Workers' Party vote share. The slope is nearly flat in 2002, implying no clear association at the time, but in subsequent elections it becomes strongly positive, indicating that municipalities with larger Quilombola populations exhibit much higher support for Workers' Party candidates.

The results from Tables A3 to A14 show clear but historically interrelated patterns between the effects of slavery and the persistence of the Afro-descendant population on the vote share of the Workers' Party, reflecting how Brazil's deep-rooted racial and geographical inequalities continue to shape contemporary political preferences. Municipalities with a higher historical proportion of slaves in 1872 tend to show less support for Workers' Party candidates in the past two decades, while those with a larger current proportion of Quilombolas consistently show greater electoral support. These contrasting patterns are linked by a historical mechanism. Enslaved people in the nineteenth century often escaped from areas of intense slavery and established quilombos in remote and less accessible regions in order to live freely and autonomously. Over time, these areas, where Quilombola communities remain concentrated, became relatively marginalized but socially cohesive spaces with strong collective identities and traditions of resistance (Maria da Silva and B. O. Souza, 2022). As a result, these communities today tend to favor the Workers' Party, whose policies of redistribution, social protection, and inclusion closely align with the political preferences and life experiences of the historically marginalized Afro-descendant population. By contrast, the regions that historically relied heavily on slavery

developed along a path of economic and social inequality that reinforced conservative political alignments. These areas, typically wealthier and more integrated into colonial and postcolonial elite structures, continue to exhibit lower support for left-wing politics, reflecting the persistence of historical hierarchies and patterns of exclusion. The stronger IV coefficients for both the slave and Quilombola variables, compared to their OLS counterparts, reinforce this interpretation. The instrumental variables, including land suitability dummy, distance to the nearest slave trade port, and distance to the nearest colonial mine, capture exogenous historical factors that influenced where slavery was most deeply rooted and where communities of escaped slaves could survive. These instruments isolate the variation in slavery intensity and Afro-descendant presence that is independent of current socioeconomic and political factors, revealing deeper causal linkages between Brazil's colonial geography and its modern electoral and political landscape. The use of these instruments strengthens the results by addressing endogeneity. Regions that were historically suitable for plantation agriculture or closer to trade routes had higher slave concentrations, while remote areas farther from ports and mines became refuges for escaped slaves. Consequently, the IV estimates show how these structural historical forces, and not just current socioeconomic conditions, continue to shape the persistent regional and racial divides in political preferences in Brazil.

Tables A15 and A16 present the results from linear and quadratic RDD estimations examining the discontinuity in the vote share of the Workers' Party presidential candidates at the Tordesillas Line. The treatment group includes municipalities historically located in Portuguese Brazil, and the running variable measures the distance to the historical line. In Table A15, which covers Lula's vote share in 2002 and 2006 and Rousseff's in 2010, when crossing the Tordesillas Line into Portuguese Brazil, the estimates reveal a consistent negative and statistically significant discontinuity in the quadratic specifications, particularly at the larger bandwidth of 1000 km. For example, in the quadratic RDD with a bandwidth of between 50 and 1000 km, the discontinuities in the vote shares are –6.1 percentage points in 2002, –3.8 percentage points in 2006, and –4.8 percentage points in 2010. The linear RDD estimates are generally smaller and insignificant, suggesting that the quadratic model better captures the discontinuity. In contrast, Table A16 shows that the discontinuities in the vote share of Rousseff in 2014, Haddad in 2018, and Lula in 2022 are positive and statistically significant, particularly at the smaller bandwidth of 500 km in the quadratic specifications. For instance, in the quadratic RDD with a bandwidth of between 50 and 500 km, the discontinuities in the vote shares are 3.8 percentage points in 2014 and 5.8 percentage points in 2018 and 2022. Excluding the municipalities closest to the cutoff consistently strengthens the magnitude of the estimates, suggesting that removing observations

near the historical border reduces potential noise and reinforces the robustness of the observed discontinuities. As shown in Tables A19 and A20, including state fixed effects makes the discontinuities positive, significant, and generally stronger across most specifications. However, the discontinuities remain almost the same when including border segment fixed effects as shown in Tables A23 and A24.

The discontinuities in the vote share of the Workers' Party at the Tordesillas Line can also be observed in the RDD plots in Figure A12. The discontinuities in the vote share, which are negative in the earlier elections, become positive in the later elections. These plots also suggest that the municipalities historically located within Portuguese Brazil have shown stronger support for the Workers' Party since the 2006 presidential election. Figure A13 presents RDD plots for the covariates around the Tordesillas Line. While several covariates change smoothly across the historical line, others display visible discontinuities, suggesting some variation in location characteristics. Nonetheless, the overall patterns indicate that most covariates vary gradually around the cutoff, supporting the credibility of the RDD and suggesting that observed discontinuities in political preferences are unlikely to be driven solely by geographic factors. In the next two figures, I have presented the RDD plots for racial composition and measures of economic activity around the Tordesillas Line. The RDD plots in Figure A14 show no clear discontinuities in the racial composition at the Tordesillas Line. The shares of White, Brown, and Black populations change gradually without a sharp shift across the line. The shares of Indigenous and Yellow populations remain relatively low and almost smooth across the line. The RDD plots in Figure A15 show clear positive discontinuities in the economic activity variables at the Tordesillas Line. However, these variables gradually decrease in the Portuguese Brazil as the distance of the municipalities from the Tordesillas Line increases.

Tables A17 and A18 present estimates from linear and quadratic RDD models investigating the discontinuity in the vote share of Workers' Party presidential candidates at the Dutch Brazil border. The treatment group includes municipalities historically located in Dutch Brazil, and the running variable measures the distance to the historical border. Table A17 shows consistent negative and statistically significant discontinuities in the linear specifications, which are stronger within a 600 km bandwidth. For instance, the discontinuity in the vote share is –5.5 percentage points in 2002, –8.3 percentage points in 2006, and –3.7 percentage points in 2010 in the linear RDD with a bandwidth of between 30 and 600 km. The linear RDD estimates are generally stronger and more significant, suggesting that the linear model more accurately captures the discontinuity. As shown in Table A18, the discontinuities in Haddad's and Lula's vote shares in 2018 and 2022, respectively, are positive and statistically significant in most specifications.

These discontinuities are stronger in the quadratic specifications with a smaller bandwidth of 300 km. For example, in the quadratic RDD with a bandwidth ranging from 30 to 300 km, the discontinuities in vote share are 4.3 and 4.6 percentage points, respectively, in 2018 and 2022. However, the discontinuities in Rousseff's vote share in 2014 are insignificant. The estimates in most specifications are consistently strengthened by excluding the municipalities closest to the Dutch Brazil border. As shown in Tables A21, A22, A25, and A26, including state and border segment fixed effects does not considerably change the estimates in most specifications.

The RDD plots for the vote share of the Workers' Party at the Dutch Brazil border are shown in Figure A16. The discontinuities in the vote share, which are negative in the earlier elections, become insignificant in the later elections. These plots also suggest that vote share of the Workers' Party gradually decreases on both sides of the Dutch Brazil border as the distance of the municipalities from the border increases. Figure A17 shows the RDD plots for covariates around the Dutch Brazil border. The patterns indicate that while some variables display discontinuities, most change smoothly across the historical boundary. Similar to the Tordesillas Line, the general smoothness of the covariates around the Dutch Brazil border suggests that municipalities on either side share comparable geographic and locational features. Figure A18 displays the RDD plots for racial composition around Dutch Brazil border. The plots reveal clear discontinuities in the shares of Brown and Black populations at the border, with a positive discontinuity for Brown population and a negative discontinuity for Black population. In contrast, the shares of White, Indigenous, and Yellow populations change smoothly across the border. Finally, the RDD plots for economic activity variables are shown in Figure A19. Among the variables, only the agriculture sector exhibits a clear discontinuity at the border. The other variables vary smoothly across the border without noticeable breaks.

8 Conclusions

In this paper, I investigate how Brazil's colonial and slavery legacies continue to shape contemporary political preferences, focusing on electoral support for the Workers' Party. Drawing on historical data of slavery from the 1872 census, contemporary Quilombola settlement records, and modern electoral returns, I analyze the long-term political effects of slavery intensity, Afro-descendant community persistence, and colonial administrative boundaries. To establish causal relationships, I employ an IV approach using the land suitability, slave trade port, and colonial mine as an instruments for slavery intensity. Additionally, I apply spatial RDD to identify discontinuities in the vote share of Workers' Party across the Tordesillas Line and the Dutch

Brazil border, which are key historical frontiers that generated different colonial institutions. The empirical results provide robust evidence of historical persistence. First, municipalities with higher historical concentrations of enslaved populations exhibit significantly lower support for the Workers' Party in recent elections, consistent with theories of elite dominance and institutional exclusion rooted in slavery-based economies. Second, municipalities with larger contemporary Quilombolas show higher support for this party, suggesting a political alignment created through historical resistance and collective identity. Third, spatial RDD analysis reveals sharp political divides across Brazil's colonial borders, indicating that institutional differences created by Portuguese and Dutch colonial regimes continue to influence electoral outcomes.

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A Appendix

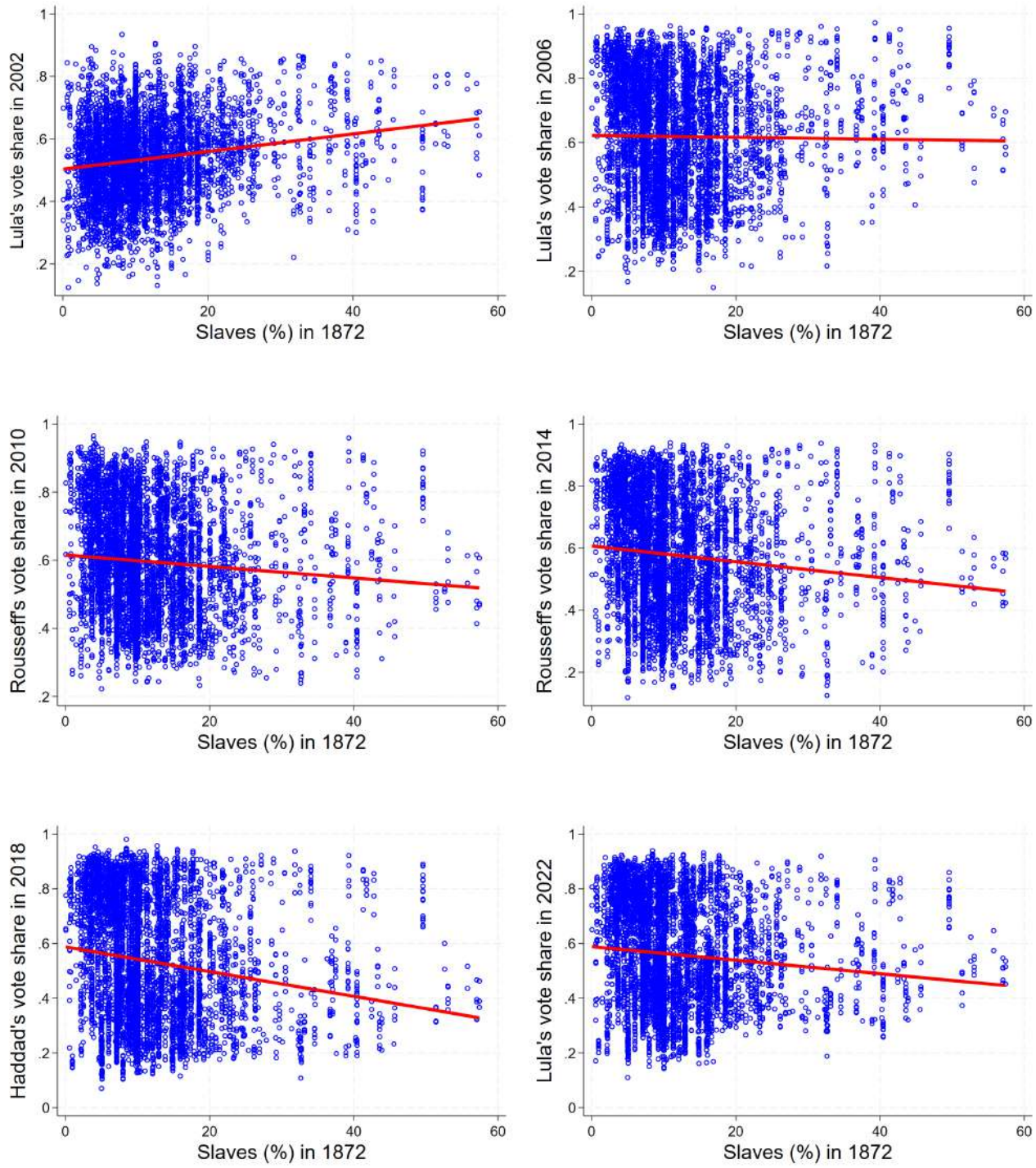
Table A1: Data Description and Sources

Variable	Description	Source
Vote share	Vote share of candidates in the 2002, 2006, 2010, 2014, 2018, and 2022 presidential elections	Tribunal Superior Eleitoral
Slaves	Slave population recorded in the 1872 census	Instituto Brasileiro de Geografia e Estatística (IBGE)
Quilombolas	Communities of Afro-Brazilian descendants of enslaved Africans who escaped from slavery, census 2022	IBGE
GDP per capita	at current prices (R$)	IBGE
GDP (Agriculture, Industry, Services)	at current prices (R$ 1,000)	IBGE
Color or race	Population by color or race (White, Black, Brown, Yellow, and Indigenous) in %; Population Census 2000, 2010, and 2022	IBGE
Fractionalization	Calculated from population by color or race, based on Alesina et al. (2003)	IBGE and own calculations
Attend school	People who attended school or daycare (% of the total population); Population Census 2000 and 2010	IBGE
Higher education	People with a higher education degree completed (% of the total population); Population Census 2000 and 2010	IBGE
Literacy rate	Literacy rate (% of the population aged 10 and over); Population Census 2000	IBGE
COVID-19 deaths	Total COVID-19 deaths until 30.9.2022	Ministério da Saúde
COVID-19 cases	Total COVID-19 cases until 30.9.2022	Ministério da Saúde
COVID-19 vaccines	Total COVID-19 vaccine doses applied until 30.9.2022	Ministério da Saúde
Land suitability dummy	Municipality is located outside the Legal Amazon and semiarid regions	IBGE and own calculations
Distance to nearest slave trade port	Distance from the municipality to the nearest slave trade port, calculated in QGIS	SlaveVoyages and own calculations
Distance to nearest colonial mine	Distance from the municipality to the nearest colonial mine, calculated in QGIS	Machado and Figueirôa (2001) and own calculations
Latitude, longitude, altitude	Geospatial coordinates of municipalities	IBGE
Big city dummy	Municipality has a population size of over 500,000	IBGE and own calculations
State capital dummy	Municipality is the capital of the state	IBGE
Distance to capital	Distance from the municipality to Brasília, calculated in QGIS	IBGE and own calculations
Distance to state capital	Distance from the municipality to its state capital, calculated in QGIS	IBGE and own calculations
Distance to nearest coastline	Distance from the municipality to the nearest Brazilian coastline, calculated in QGIS	IBGE and own calculations
Distance to nearest port	Distance from the municipality to the nearest port, calculated in QGIS	IBGE and own calculations
Distance to nearest mine	Distance from the municipality to the nearest mine, calculated in QGIS	Deutsch-Brasilianische Industrie- und Handelskammer and own calculations
Portuguese Brazil dummy	Municipality is located in Portuguese Brazil territories, calculated in QGIS	IBGE and own calculations
Dutch Brazil dummy	Municipality is located in Dutch Brazil territories, calculated in QGIS	IBGE and own calculations
Distance to Tordesillas Line	Distance from the municipality to the Tordesillas Line, calculated in QGIS	IBGE and own calculations
Distance to Dutch Brazil border	Distance from the municipality to the Dutch Brazil border, calculated in QGIS	IBGE and own calculations

Table A2: Summary Statistics

Variable	Year	Mean	Std. Dev.	Min	Max	Obs
Lula's vote share	2002	0.536	0.126	0.125	0.934	5562
Lula's vote share	2006	0.619	0.170	0.149	0.972	5565
Rousseff's vote share	2010	0.595	0.154	0.197	0.965	5566
Rousseff's vote share	2014	0.577	0.181	0.118	0.939	5570
Haddad's vote share	2018	0.535	0.222	0.070	0.980	5570
Lula's vote share	2022	0.559	0.188	0.110	0.938	5570
Slaves (%)	1872	11.821	8.098	0.069	57.407	5461
Quilombolas (%)	2022	1.205	4.516	0	84.52	5570
GDP per capita (current prices - R$)	2002	5356.573	5960.801	879.634	159914.4	5560
	2006	8036.908	9563.16	1346.08	231994	5564
	2010	12602.48	14720.65	2256.42	312220.7	5565
	2014	18672.06	21399.82	3081.72	815697.8	5570
	2018	23482.85	24673.03	4778.52	582654.7	5570
	2021	33871.28	41908.72	5407.66	920834	5570
White (%)	2000	52.701	25.582	0.714	100	5558
	2010	46.948	24.049	0.860	99.159	5565
	2022	42.853	22.843	0.989	97.427	5570
Fractionalization	2000	0.435	0.144	0	0.796	5558
	2010	0.465	0.119	0.017	0.706	5565
	2022	0.487	0.101	0.050	0.699	5570
Attend school (%)	2000	32.054	6.559	12.955	75.944	5507
	2010	30.267	5.075	10.616	49.325	5565
Higher education (%)	2000	1.380	1.404	0.021	15.471	5239
	2010	3.562	2.311	0.149	23.959	5565
Literacy rate (%)	2000	81.115	11.192	39.912	99.297	5507
COVID-19 deaths	2020-2022	122.927	902.098	0	43772	5570
COVID-19 cases	2020-2022	6212.596	30697.88	16	1164387	5570
COVID-19 vaccines	2020-2022	88024.44	619595.7	902	35546842	5570
Land suitability dummy		0.596	0.491	0	1	5565
Distance to nearest slave trade port (km)		430.603	373.664	0.475	2830.975	5565
Distance to nearest colonial mine (km)		835.287	483.972	0.579	2304.071	5565
Latitude		−16.446	8.282	−33.687	4.585	5565
Longitude		−46.227	6.409	−72.916	−32.435	5565
Altitude		417.923	288.661	0	1639.155	5565
Big city dummy		0.007	0.085	0	1	5570
State capital dummy		0.005	0.069	0	1	5570
Distance to capital (km)		1093.473	450.044	0	2931.921	5565
Distance to state capital (km)		263.260	170.657	0	1481.872	5565
Distance to nearest coastline (km)		362.640	375.036	0.156	2626.631	5565
Distance to nearest port (km)		306.610	226.239	1.598	1112.911	5565
Distance to nearest mine (km)		176.495	128.209	0.771	1109.521	5565
Portuguese Brazil dummy		0.607	0.488	0	1	5565
Dutch Brazil dummy		0.206	0.405	0	1	5570
Distance to Tordesillas Line (km)		613.686	456.279	0.009	2695.769	5565
Distance to Dutch Brazil border (km)		1164.283	793.620	0.005	3115.967	5565

Figure A1: Scatter Plots for Vote Share of Workers' Party Presidential Candidates and Slave Population



Notes: Figure shows the correlation between the vote share of the Workers' Party presidential candidates in the second round of elections and the percentage of the slave population in 1872 in Brazilian municipalities.

Table A3: Slaves and Political Preferences in 2002

	Lula's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Slaves (%) in 1872	0.003***	0.002***	0.001***	0.006***	0.004***	0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
GDP per capita (log)			0.028***			0.014***
			(0.003)			(0.004)
White (%)			−0.001***			−0.001***
			(0.000)			(0.000)
Fractionalization			0.073***			0.080***
			(0.017)			(0.022)
Attend school (%)			0.001**			0.002***
			(0.000)			(0.000)
Higher education (%)			−0.004***			−0.009***
			(0.001)			(0.001)
Literacy rate (%)			0.008***			0.008***
			(0.000)			(0.000)
Big city dummy		0.097***	0.040*		0.085***	0.049**
		(0.023)	(0.021)		(0.025)	(0.023)
Constant	0.328***	0.015	−0.545***	0.467***	0.500***	−0.153***
	(0.011)	(0.058)	(0.062)	(0.006)	(0.035)	(0.047)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5457	5457	5145	5457	5457	5145
R^2	0.185	0.230	0.358	.	0.055	0.203

Notes: The dependent variable is the vote share of Luiz Inácio Lula da Silva in the second round of 2002 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the slave population in 1872. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A4: Slaves and Political Preferences in 2006

	Lula's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Slaves (%) in 1872	−0.0005**	0.0001	0.001***	−0.008***	−0.001**	−0.002***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
GDP per capita (log)			−0.011***			−0.025***
			(0.003)			(0.003)
White (%)			−0.002***			−0.002***
			(0.000)			(0.000)
Fractionalization			0.131***			0.162***
			(0.015)			(0.020)
Attend school (%)			0.002***			0.001***
			(0.000)			(0.000)
Higher education (%)			−0.014***			−0.015***
			(0.001)			(0.001)
Literacy rate (%)			0.0001			−0.0001
			(0.000)			(0.000)
Big city dummy		0.041**	0.062***		0.036	0.079***
		(0.020)	(0.018)		(0.024)	(0.022)
Constant	0.703***	1.066***	0.641***	0.714***	1.198***	0.963***
	(0.010)	(0.049)	(0.053)	(0.009)	(0.032)	(0.045)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5461	5461	5146	5461	5461	5146
R^2	0.670	0.694	0.741	.	0.554	0.623

Notes: The dependent variable is the vote share of Luiz Inácio Lula da Silva in the second round of 2006 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the slave population in 1872. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A5: Slaves and Political Preferences in 2010

	Rousseff's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Slaves (%) in 1872	−0.002***	−0.0003	0.001**	−0.010***	−0.007***	−0.006***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
GDP per capita (log)			−0.017***			−0.032***
			(0.003)			(0.003)
White (%)			−0.002***			−0.003***
			(0.000)			(0.000)
Fractionalization			−0.029			−0.056**
			(0.017)			(0.027)
Attend school (%)			0.002***			0.001
			(0.000)			(0.000)
Higher education (%)			−0.010***			−0.009***
			(0.001)			(0.001)
Literacy rate (%)			−0.0001			−0.0003
			(0.000)			(0.000)
Big city dummy		0.032	0.073***		0.022	0.084***
		(0.020)	(0.018)		(0.026)	(0.024)
Constant	0.643***	0.966***	0.723***	0.720***	0.909***	0.960***
	(0.010)	(0.049)	(0.052)	(0.008)	(0.036)	(0.050)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5460	5460	5402	5460	5460	5402
R^2	0.591	0.619	0.678	.	0.328	0.441

Notes: The dependent variable is the vote share of Dilma Vana Rousseff in the second round of 2010 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the slave population in 1872. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A6: Slaves and Political Preferences in 2014

	Rousseff's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Slaves (%) in 1872	−0.002***	−0.0003	0.0005**	−0.017***	−0.009***	−0.012***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
GDP per capita (log)			−0.035***			−0.041***
			(0.003)			(0.004)
White (%)			−0.002***			−0.003***
			(0.000)			(0.000)
Fractionalization			0.065***			0.154***
			(0.017)			(0.031)
Attend school (%)			0.002***			−0.0005
			(0.000)			(0.001)
Higher education (%)			−0.009***			−0.008***
			(0.001)			(0.001)
Literacy rate (%)			−0.001***			−0.001***
			(0.000)			(0.000)
Big city dummy		0.021	0.066***		0.022	0.063**
		(0.020)	(0.018)		(0.028)	(0.028)
Constant	0.702***	0.987***	0.828***	0.780***	1.070***	1.061***
	(0.010)	(0.050)	(0.051)	(0.010)	(0.038)	(0.058)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5461	5461	5403	5461	5461	5403
R^2	0.690	0.720	0.782	.	0.450	0.479

Notes: The dependent variable is the vote share of Dilma Vana Rousseff in the second round of 2014 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the slave population in 1872. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A7: Slaves and Political Preferences in 2018

	Haddad's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Slaves (%) in 1872	−0.002***	−0.0002	0.001***	−0.020***	−0.013***	−0.015***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
GDP per capita (log)			−0.038***			−0.040***
			(0.003)			(0.004)
White (%)			−0.003***			−0.003***
			(0.000)			(0.000)
Fractionalization			0.072***			0.179***
			(0.017)			(0.033)
Attend school (%)			0.002***			−0.0001
			(0.000)			(0.001)
Higher education (%)			−0.007***			−0.007***
			(0.001)			(0.001)
Literacy rate (%)			−0.004***			−0.005***
			(0.000)			(0.000)
Big city dummy		−0.022	0.033*		−0.038	0.034
		(0.022)	(0.018)		(0.031)	(0.029)
Constant	0.740***	1.279***	1.125***	0.776***	1.290***	1.350***
	(0.011)	(0.053)	(0.051)	(0.012)	(0.043)	(0.062)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5461	5461	5403	5461	5461	5403
R^2	0.752	0.785	0.860	.	0.535	0.606

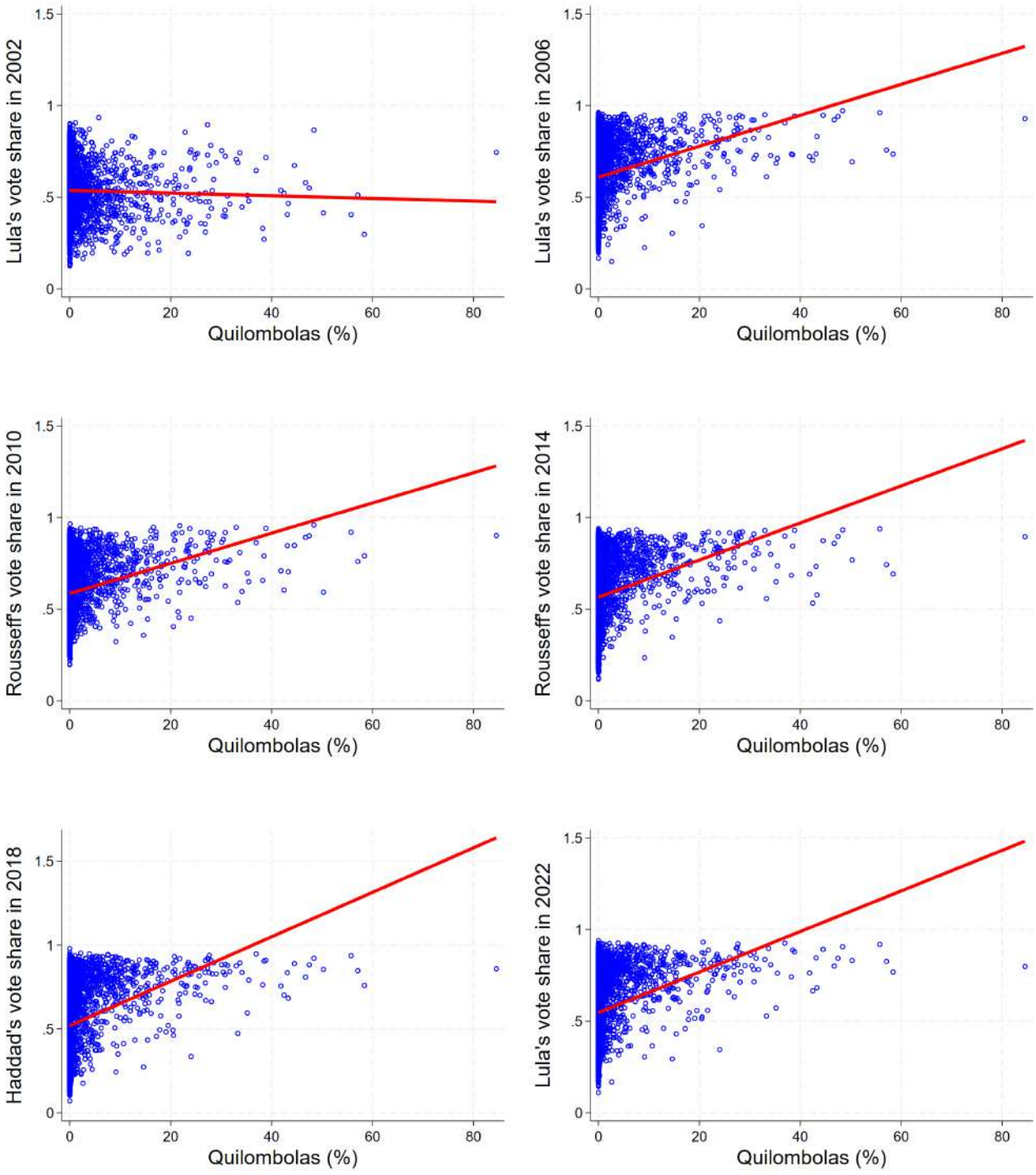
Notes: The dependent variable is the vote share of Fernando Haddad in the second round of 2018 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the slave population in 1872. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A8: Slaves and Political Preferences in 2022

	Lula's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Slaves (%) in 1872	−0.001***	0.001	0.001***	−0.010***	−0.008***	−0.012***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
GDP per capita (log)			−0.031***			−0.031***
			(0.002)			(0.003)
White (%)			−0.003***			−0.003***
			(0.000)			(0.000)
Fractionalization			0.093***			0.218***
			(0.018)			(0.031)
Attend school (%)			0.002***			−0.001**
			(0.000)			(0.000)
Higher education (%)			0.001			0.002*
			(0.000)			(0.001)
Literacy rate (%)			−0.003***			−0.003***
			(0.000)			(0.000)
COVID-19 deaths (log)			−0.026***			−0.040***
			(0.002)			(0.004)
COVID-19 cases (log)			−0.027***			−0.031***
			(0.002)			(0.003)
COVID-19 vaccines (log)			0.045***			0.062***
			(0.003)			(0.005)
Big city dummy		−0.013	0.032**		−0.018	0.041
		(0.020)	(0.016)		(0.026)	(0.025)
Constant	0.693***	1.090***	0.689***	0.681***	1.135***	0.848***
	(0.010)	(0.049)	(0.051)	(0.010)	(0.036)	(0.064)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5461	5461	5392	5461	5461	5392
R^2	0.725	0.748	0.837	.	0.562	0.602

Notes: The dependent variable is the vote share of Luiz Inácio Lula da Silva in the second round of 2022 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the slave population in 1872. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A2: Scatter Plots for Vote Share of Workers' Party Presidential Candidates and Quilombolas



Notes: Figure shows the correlation between the vote share of the Workers' Party presidential candidates in the second round of elections and the percentage of the Quilombola population in Brazilian municipalities.

Table A9: Quilombolas and Political Preferences in 2002

	Lula's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Quilombolas (%)	0.0002	0.0003	0.0004	−0.024***	−0.031***	−0.025***
	(0.000)	(0.000)	(0.000)	(0.002)	(0.004)	(0.004)
GDP per capita (log)			0.029***			−0.005
			(0.003)			(0.006)
White (%)			−0.001***			−0.003***
			(0.000)			(0.000)
Fractionalization			0.089***			0.041*
			(0.017)			(0.024)
Attend school (%)			0.0004			0.002***
			(0.000)			(0.000)
Higher education (%)			−0.003**			−0.013***
			(0.001)			(0.002)
Literacy rate (%)			0.007***			0.008***
			(0.000)			(0.000)
Big city dummy		0.097***	0.041**		0.060	0.047
		(0.023)	(0.021)		(0.037)	(0.031)
Constant	0.545***	−0.186**	−0.639***	0.564***	0.418***	−0.188***
	(0.025)	(0.091)	(0.090)	(0.003)	(0.051)	(0.062)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5562	5561	5236	5561	5561	5236
R^2	0.167	0.222	0.351	.	.	.

Notes: The dependent variable is the vote share of Luiz Inácio Lula da Silva in the second round of 2002 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the Quilombola population. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A10: Quilombolas and Political Preferences in 2006

	Lula's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Quilombolas (%)	0.003***	0.002***	0.001***	0.106***	0.008***	0.004
	(0.000)	(0.000)	(0.000)	(0.006)	(0.003)	(0.003)
GDP per capita (log)			−0.010***			−0.023***
			(0.003)			(0.004)
White (%)			−0.002***			−0.002***
			(0.000)			(0.000)
Fractionalization			0.141***			0.142***
			(0.014)			(0.016)
Attend school (%)			0.002***			0.002***
			(0.000)			(0.000)
Higher education (%)			−0.013***			−0.015***
			(0.001)			(0.001)
Literacy rate (%)			−0.0001			−0.0001
			(0.000)			(0.000)
Big city dummy		0.040**	0.057***		0.042*	0.077***
		(0.019)	(0.018)		(0.023)	(0.021)
Constant	0.515***	0.822***	0.373***	0.492***	1.226***	1.015***
	(0.021)	(0.076)	(0.077)	(0.010)	(0.032)	(0.041)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5565	5565	5237	5565	5565	5237
R^2	0.672	0.696	0.740	.	0.553	0.635

Notes: The dependent variable is the vote share of Luiz Inácio Lula da Silva in the second round of 2006 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the Quilombola population. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A11: Quilombolas and Political Preferences in 2010

	Rousseff's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Quilombolas (%)	0.003***	0.003***	0.002***	0.090***	0.031***	0.025***
	(0.000)	(0.000)	(0.000)	(0.005)	(0.004)	(0.004)
GDP per capita (log)			−0.017***			−0.015***
			(0.003)			(0.005)
White (%)			−0.002***			−0.001***
			(0.000)			(0.000)
Fractionalization			−0.017			−0.079***
			(0.017)			(0.028
Attend school (%)			0.002***			−0.0003
			(0.000)			(0.001)
Higher education (%)			−0.010***			−0.008***
			(0.001)			(0.001)
Literacy rate (%)			−0.0002			−0.001**
			(0.000)			(0.000)
Big city dummy		0.032*	0.068***		0.053	0.098***
		(0.019)	(0.018)		(0.033)	(0.029)
Constant	0.337***	0.631***	0.327***	0.487***	1.049***	1.157***
	(0.021)	(0.077)	(0.077)	(0.008)	(0.046)	(0.059)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5566	5564	5506	5564	5564	5506
R^2	0.596	0.626	0.680	.	.	0.133

Notes: The dependent variable is the vote share of Dilma Vana Rousseff in the second round of 2010 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the Quilombola population. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A12: Quilombolas and Political Preferences in 2014

	Rousseff's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Quilombolas (%)	0.004***	0.003***	0.002***	0.118***	0.031***	0.027***
	(0.000)	(0.000)	(0.000)	(0.007)	(0.004)	(0.004)
GDP per capita (log)			−0.034***			−0.021***
			(0.003)			(0.005)
White (%)			−0.002***			−0.001***
			(0.000)			(0.000)
Fractionalization			0.077***			0.029
			(0.017)			(0.028
Attend school (%)			0.002***			−0.001
			(0.000)			(0.001)
Higher education (%)			−0.008***			−0.008***
			(0.001)			(0.001)
Literacy rate (%)			−0.001***			−0.002***
			(0.000)			(0.000)
Big city dummy		0.021	0.060***		0.027	0.081***
		(0.019)	(0.017)		(0.033)	(0.030)
Constant	0.431***	0.661***	0.431***	0.435***	1.221***	1.344***
	(0.021)	(0.077)	(0.074)	(0.011)	(0.046)	(0.060)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5570	5565	5507	5565	5565	5507
R^2	0.695	0.725	0.783	.	0.188	0.359

Notes: The dependent variable is the vote share of Dilma Vana Rousseff in the second round of 2014 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the Quilombola population. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A13: Quilombolas and Political Preferences in 2018

	Haddad's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Quilombolas (%)	0.005***	0.004***	0.003***	0.155***	0.043***	0.041***
	(0.000)	(0.000)	(0.000)	(0.009)	(0.005)	(0.005)
GDP per capita (log)			−0.037***			−0.010
			(0.003)			(0.006)
White (%)			−0.003***			−0.001*
			(0.000)			(0.000)
Fractionalization			0.092***			0.051
			(0.016)			(0.037
Attend school (%)			0.002***			−0.001
			(0.000)			(0.001)
Higher education (%)			−0.007***			−0.006***
			(0.001)			(0.002)
Literacy rate (%)			−0.004***			−0.006***
			(0.000)			(0.000)
Big city dummy		−0.023	0.025		−0.004	0.059
		(0.021)	(0.017)		(0.041)	(0.039)
Constant	0.317***	0.964***	0.669***	0.348***	1.490***	1.718***
	(0.023)	(0.083)	(0.073)	(0.014)	(0.057)	(0.080)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5570	5565	5507	5565	5565	5507
R^2	0.759	0.791	0.862	.	0.156	0.265

Notes: The dependent variable is the vote share of Fernando Haddad in the second round of 2018 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the Quilombola population. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A14: Quilombolas and Political Preferences in 2022

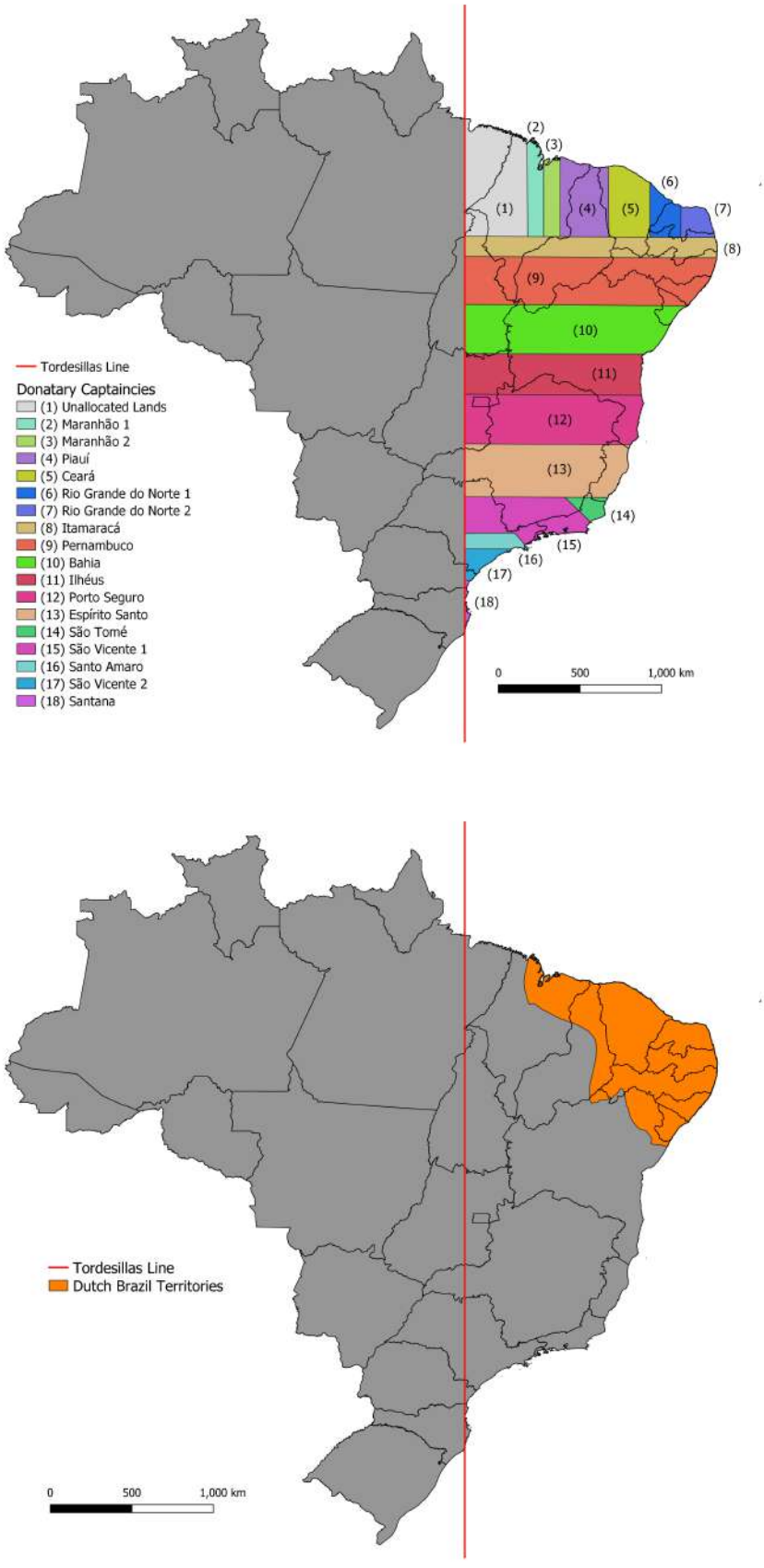
	Lula's vote share					
	OLS			IV - 2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
Quilombolas (%)	0.004***	0.004***	0.001***	0.131***	0.038***	0.044***
	(0.000)	(0.000)	(0.000)	(0.008)	(0.004)	(0.006)
GDP per capita (log)			−0.030***			−0.011**
			(0.002)			(0.006)
White (%)			−0.003***			−0.001
			(0.000)			(0.000)
Fractionalization			0.102***			−0.029
			(0.017)			(0.037)
Attend school (%)			0.001***			−0.002*
			(0.000)			(0.001)
Higher education (%)			0.001			0.001
			(0.001)			(0.002)
Literacy rate (%)			−0.003***			−0.006***
			(0.000)			(0.001)
COVID-19 deaths (log)			−0.025***			0.042***
			(0.002)			(0.012)
COVID-19 cases (log)			−0.026***			0.003
			(0.002)			(0.007)
COVID-19 vaccines (log)			0.042***			−0.058***
			(0.003)			(0.016)
Big city dummy		−0.015	0.027*		0.012	0.084**
		(0.019)	(0.016)		(0.036)	(0.041)
Constant	0.347***	0.886***	0.382***	0.401***	1.276***	2.100***
	(0.021)	(0.076)	(0.071)	(0.012)	(0.050)	(0.156)
Control variables	No	Yes	Yes	No	Yes	Yes
State fixed effects	Yes	Yes	Yes	No	No	No
Observations	5570	5565	5495	5565	5565	5495
R^2	0.734	0.754	0.838	.	0.086	.

Notes: The dependent variable is the vote share of Luiz Inácio Lula da Silva in the second round of 2022 presidential election. The instrumental variables are land suitability dummy, distance to nearest slave trade port, distance to nearest colonial mine. The endogenous (instrumented) variable is the percentage of the Quilombola population. The geographical control variables are latitude, longitude, altitude, big city dummy, state capital dummy, distance to capital, distance to state capital, distance to nearest coastline, Portuguese Brazil dummy, and Dutch Brazil dummy. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A3: The Donatary Captaincies of Brazil in 1574

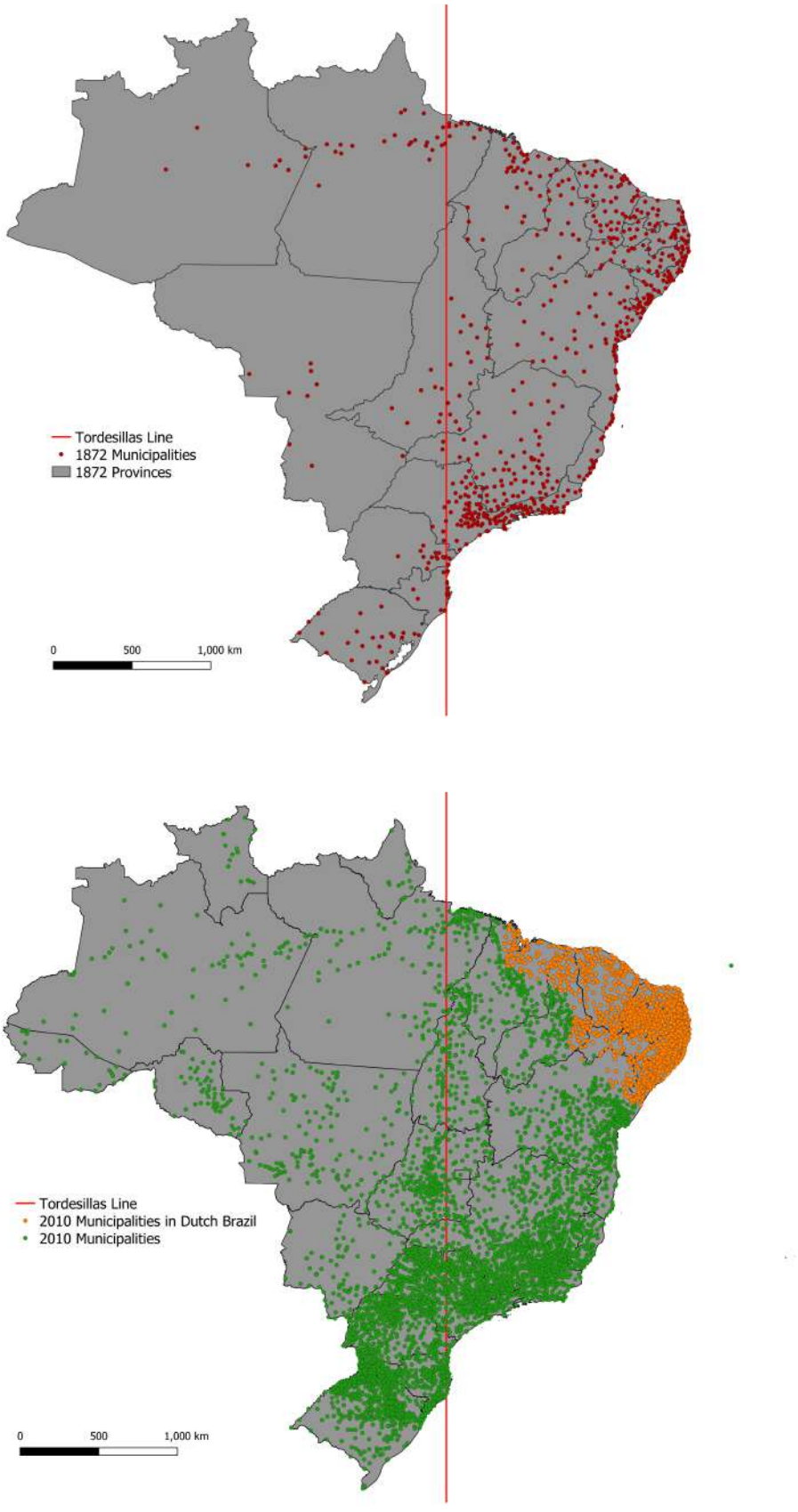
Source: Luís Teixeira. Collection of the Ajuda Library Foundation, Lisbon.

Figure A4: Tordesillas Line, Donatary Captaincies, and Dutch Brazil



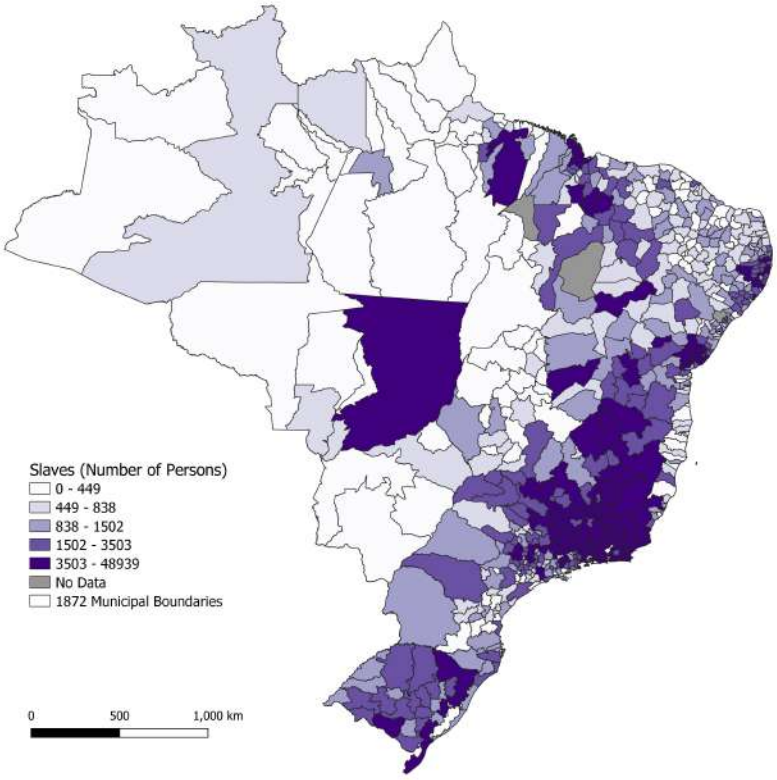
Source: Instituto Brasileiro de Geografia e Estatística, Cintra (2013), Hettema Jr. (1920), and own calculations

Figure A5: Tordesillas Line and Municipalities in 1872 and 2010



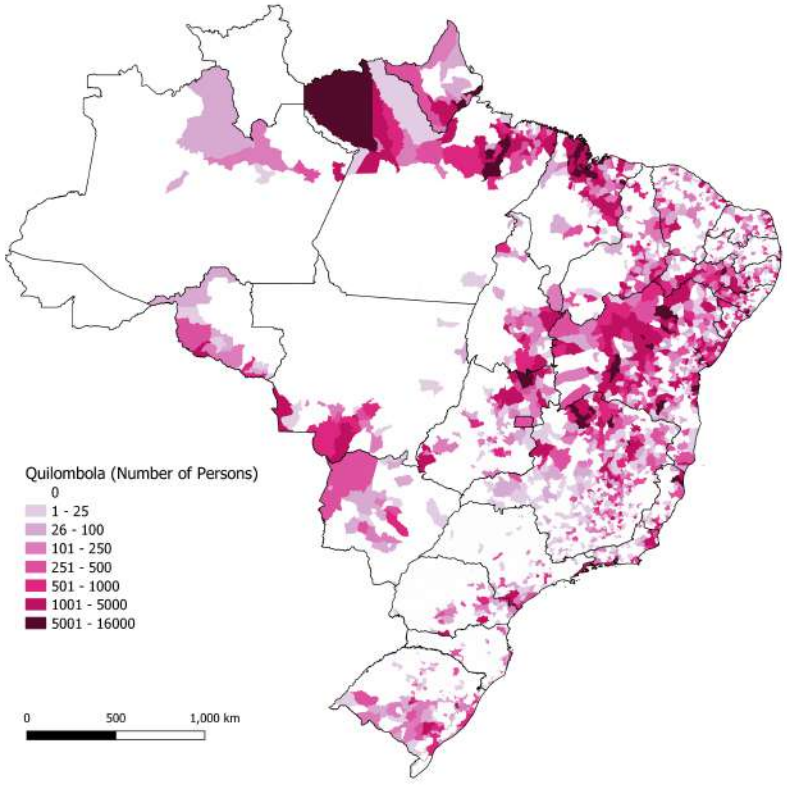
Source: Instituto Brasileiro de Geografia e Estatística and own calculations

Figure A6: Slavery per Municipality in 1872



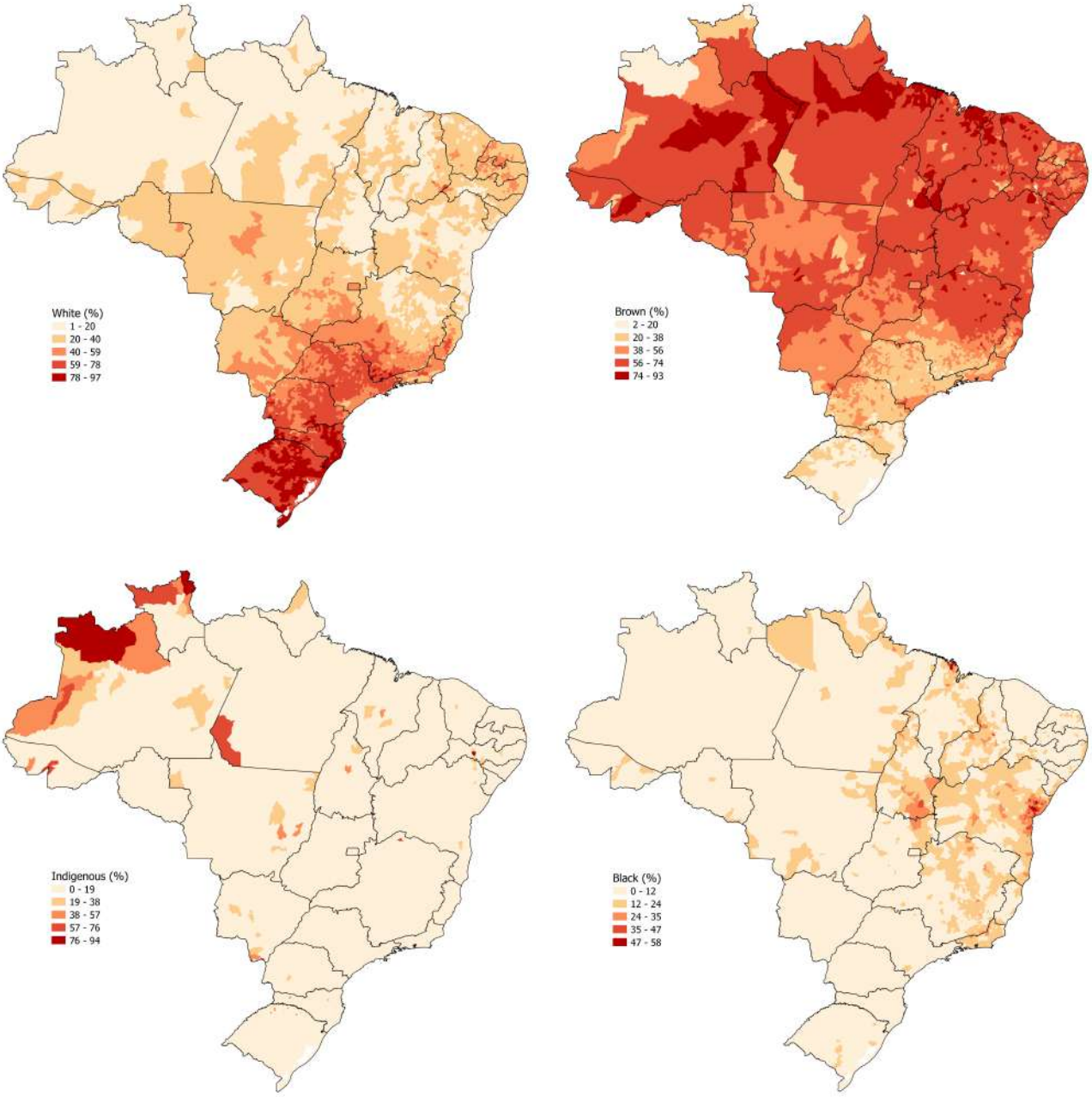
Source: Instituto Brasileiro de Geografia e Estatística and own calculations

Figure A7: Quilombola Population in 2022



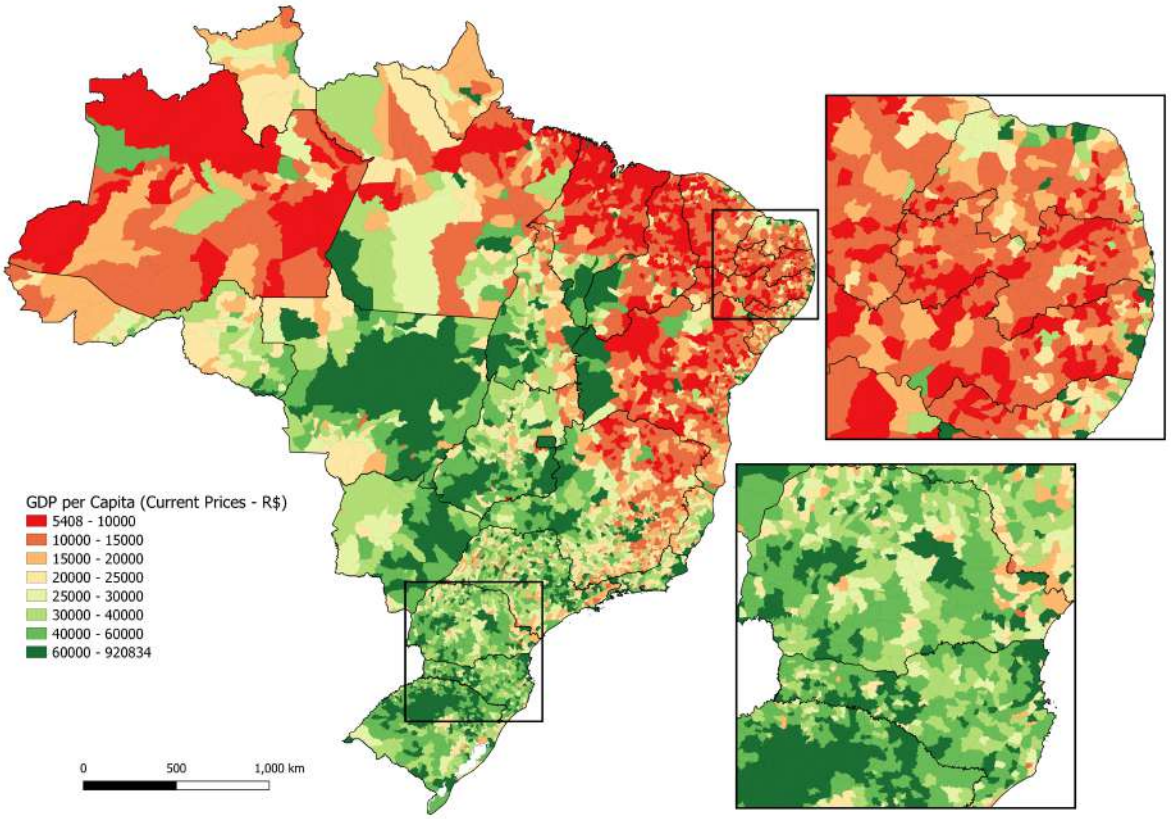
Source: Instituto Brasileiro de Geografia e Estatística and own calculations

Figure A8: Brazilian Municipalities by Color or Race in 2022



Source: Instituto Brasileiro de Geografia e Estatística and own calculations

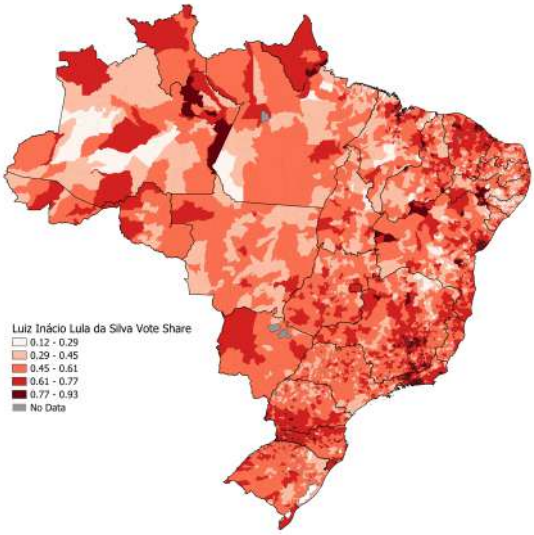
Figure A9: Brazilian Municipalities by GDP per capita in 2021

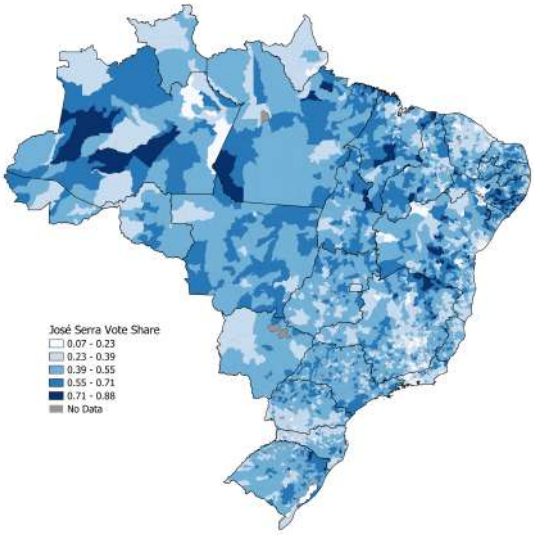


Source: Instituto Brasileiro de Geografia e Estatística and own calculations

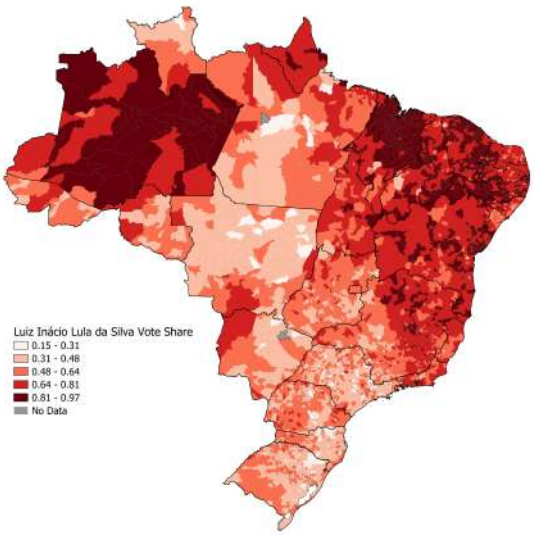
Figure A10: Vote Share of Presidential Candidates (Second Round)

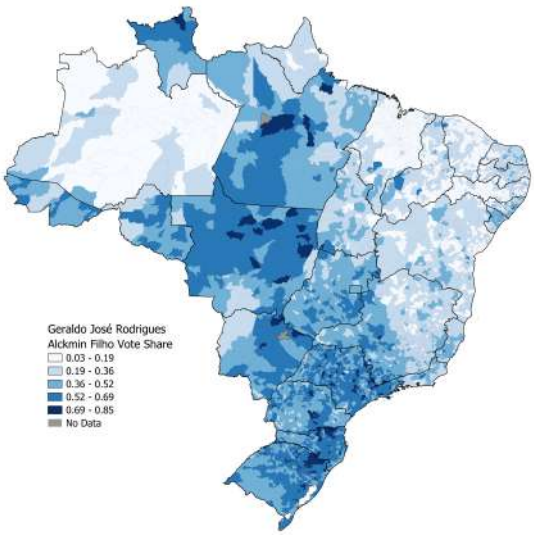
Presidential Election 2002



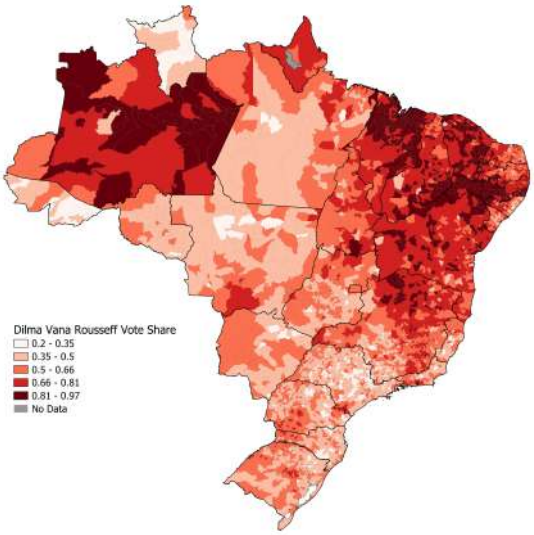


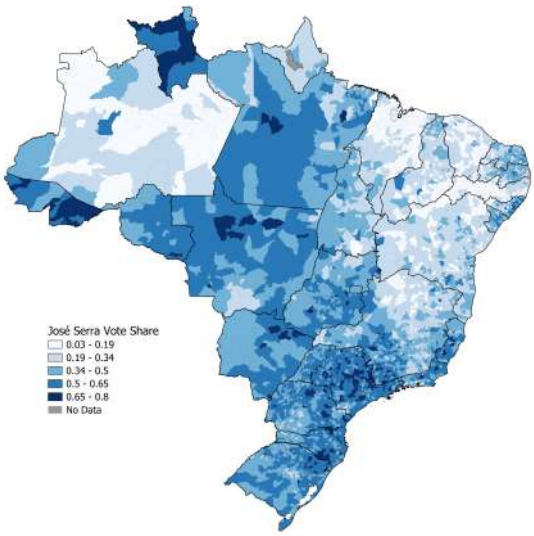
Presidential Election 2006





Presidential Election 2010

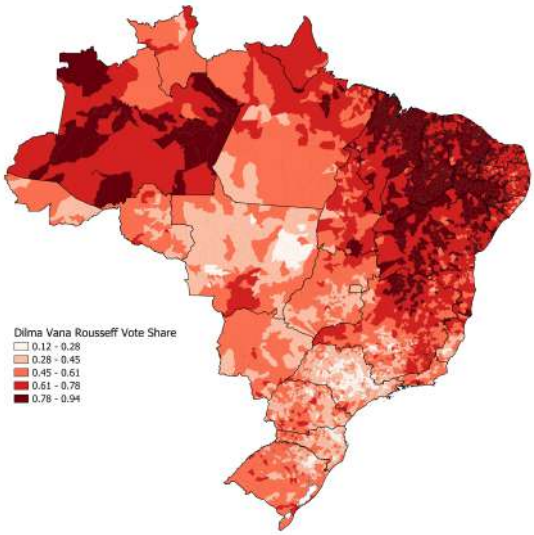


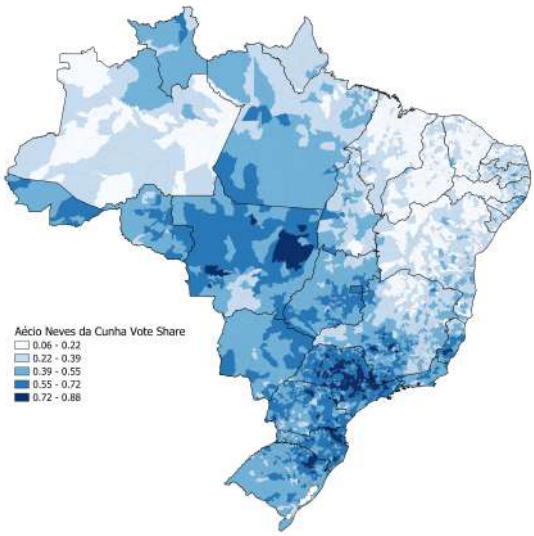


Source: Tribunal Superior Eleitoral and own calculations

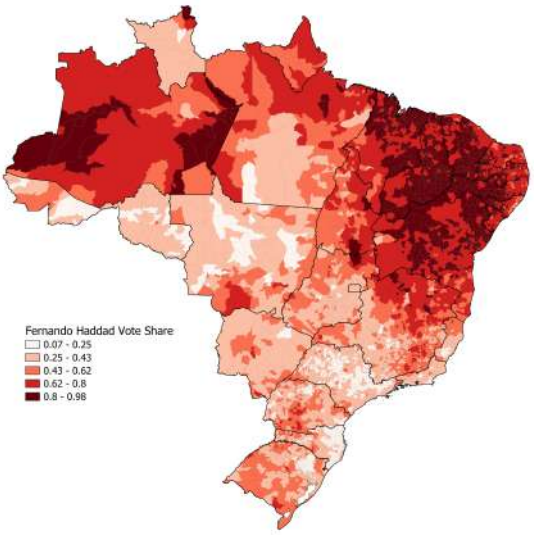
Figure A11: Vote Share of Presidential Candidates (Second Round)

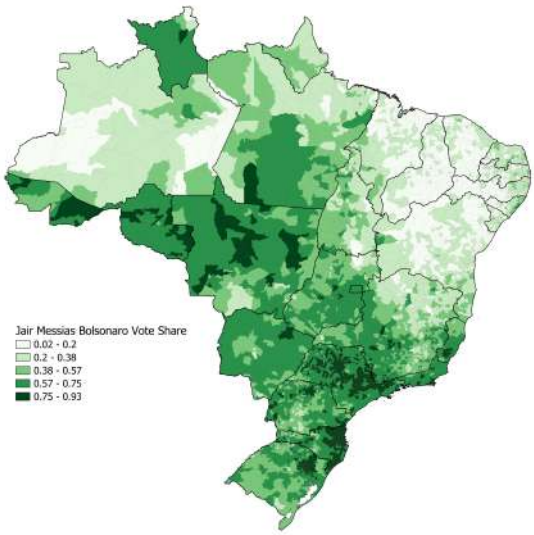
Presidential Election 2014



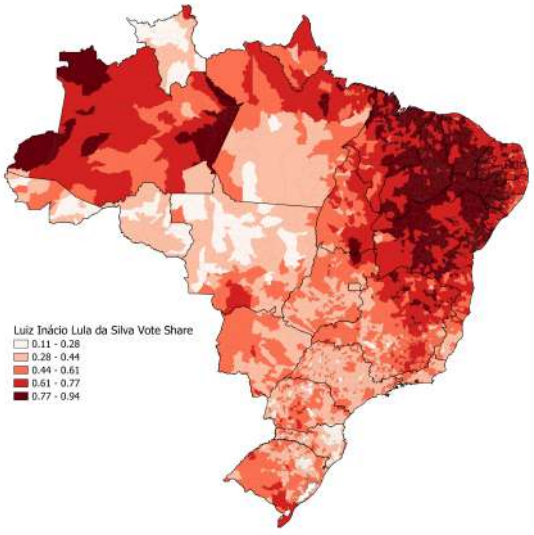


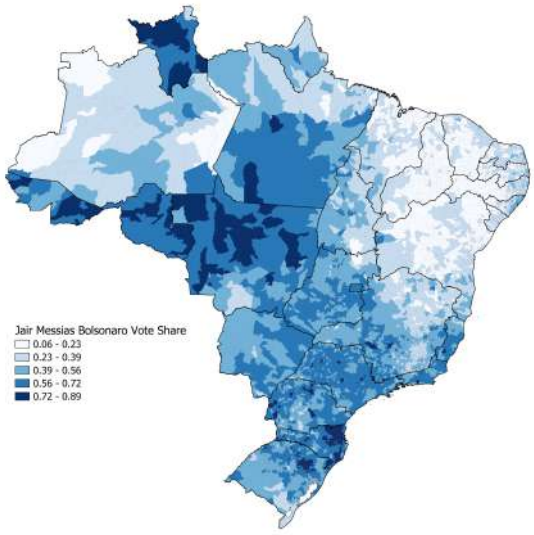
Presidential Election 2018





Presidential Election 2022





Source: Tribunal Superior Eleitoral and own calculations

Table A15: Tordesillas Line and Political Preferences (RDD)

	Bandwidth					
	$0 < d < 1000$	$25 < d < 1000$	$50 < d < 1000$	$0 < d < 500$	$25 < d < 500$	$50 < d < 500$
	Dependent variable: Lula's vote share in 2002					
Tordesillas Line (linear RDD)	−0.001	−0.005	−0.011	−0.007	−0.017**	−0.037***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	−0.021***	−0.038***	−0.061***	0.002	0.002	−0.039**
	(0.008)	(0.010)	(0.011)	(0.010)	(0.015)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4344	4178	4038	2715	2549	2409
Mean dependent variable	0.542	0.543	0.542	0.534	0.534	0.532
	Dependent variable: Lula's vote share in 2006					
Tordesillas Line (linear RDD)	0.008	0.004	0.003	0.006	0.00004	−0.007
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	−0.011	−0.028***	−0.038***	0.013	0.020	0.016
	(0.008)	(0.010)	(0.012)	(0.011)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.585	0.588	0.589	0.533	0.534	0.533
	Dependent variable: Rousseff's vote share in 2010					
Tordesillas Line (linear RDD)	−0.004	−0.004	−0.003	−0.009	−0.012	−0.013
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	−0.026***	−0.041***	−0.048***	−0.008	−0.011	−0.015
	(0.008)	(0.009)	(0.011)	(0.010)	(0.015)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4347	4181	4041	2714	2548	2408
Mean dependent variable	0.571	0.574	0.576	0.527	0.530	0.531

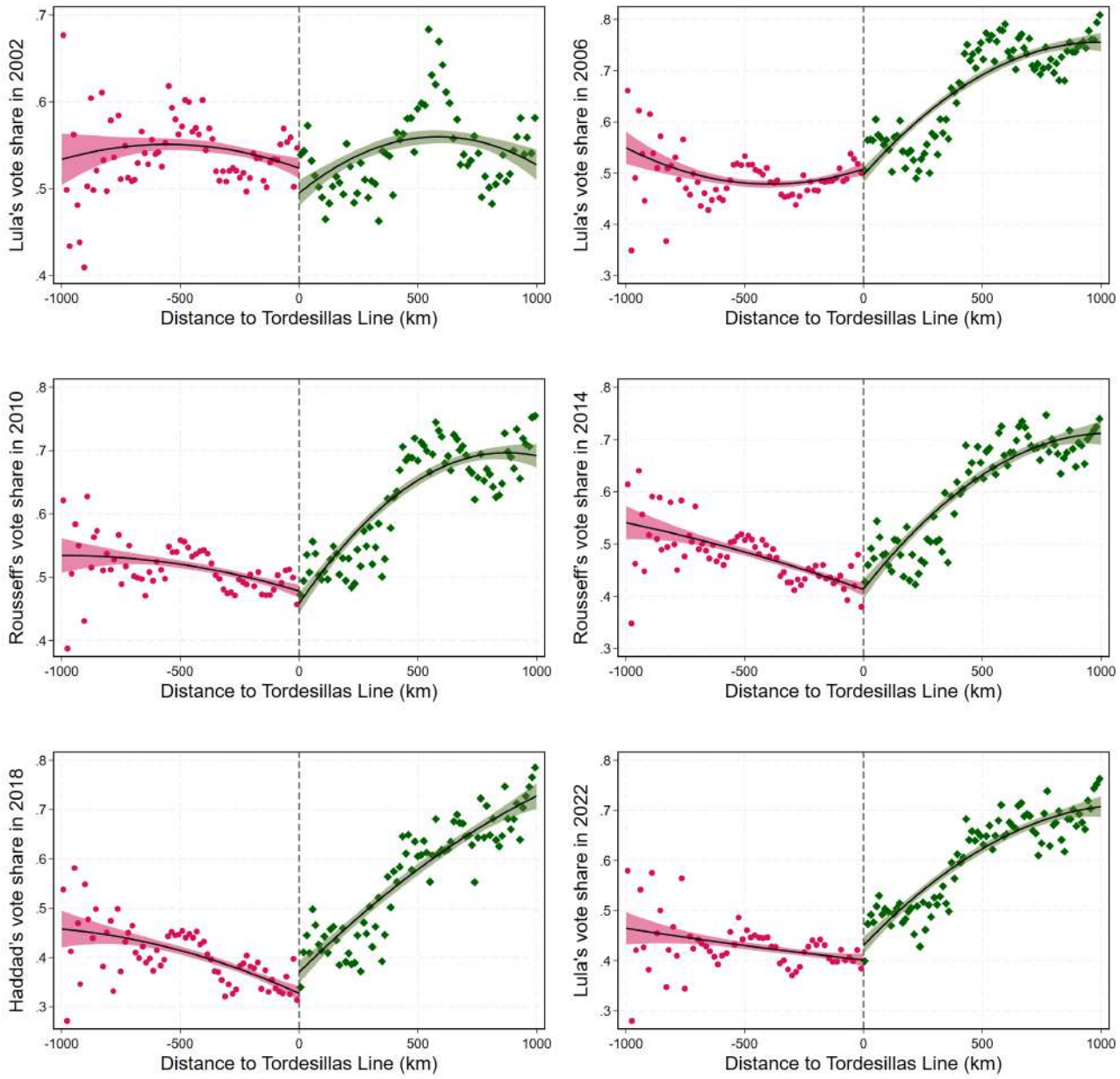
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Tordesillas Line. The treatment group includes municipalities historically located within Portuguese Brazil, and the running variable measures the distance to the Tordesillas Line. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Dutch Brazil border. Each column presents estimates for alternative bandwidths around the historical line. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A16: Tordesillas Line and Political Preferences (RDD)

	Bandwidth					
	$0 < d < 1000$	$25 < d < 1000$	$50 < d < 1000$	$0 < d < 500$	$25 < d < 500$	$50 < d < 500$
	Dependent variable: Rousseff's vote share in 2014					
Tordesillas Line (linear RDD)	0.003	−0.0005	−0.001	0.009	0.002	0.0004
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	−0.002	−0.016	−0.024**	0.024**	0.030*	0.038*
	(0.009)	(0.010)	(0.012)	(0.012)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.540	0.544	0.547	0.480	0.483	0.485
	Dependent variable: Haddad's vote share in 2018					
Tordesillas Line (linear RDD)	0.014**	0.011	0.008	0.029***	0.030***	0.029***
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	0.023***	0.018*	0.012	0.037***	0.052***	0.058***
	(0.009)	(0.010)	(0.012)	(0.011)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.483	0.487	0.491	0.415	0.418	0.421
	Dependent variable: Lula's vote share in 2022					
Tordesillas Line (linear RDD)	0.024***	0.025***	0.020***	0.033***	0.038***	0.033***
	(0.005)	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	0.019**	0.016*	0.002	0.040***	0.062***	0.058***
	(0.008)	(0.009)	(0.011)	(0.010)	(0.015)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.519	0.523	0.526	0.463	0.465	0.467

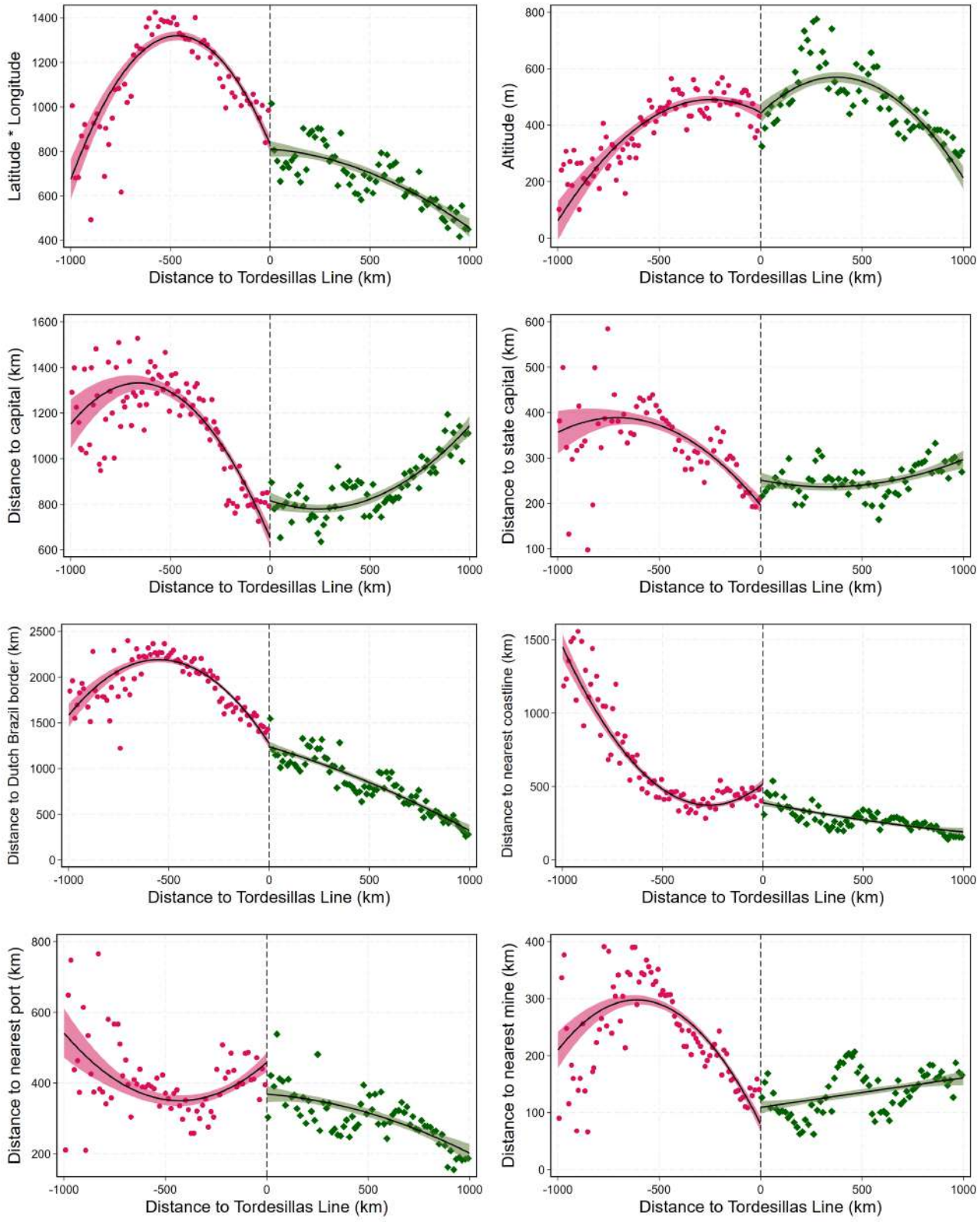
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Tordesillas Line. The treatment group includes municipalities historically located within Portuguese Brazil, and the running variable measures the distance to the Tordesillas Line. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Dutch Brazil border. Each column presents estimates for alternative bandwidths around the historical line. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A12: Tordesillas Line and Political Preferences (RDD Plots)



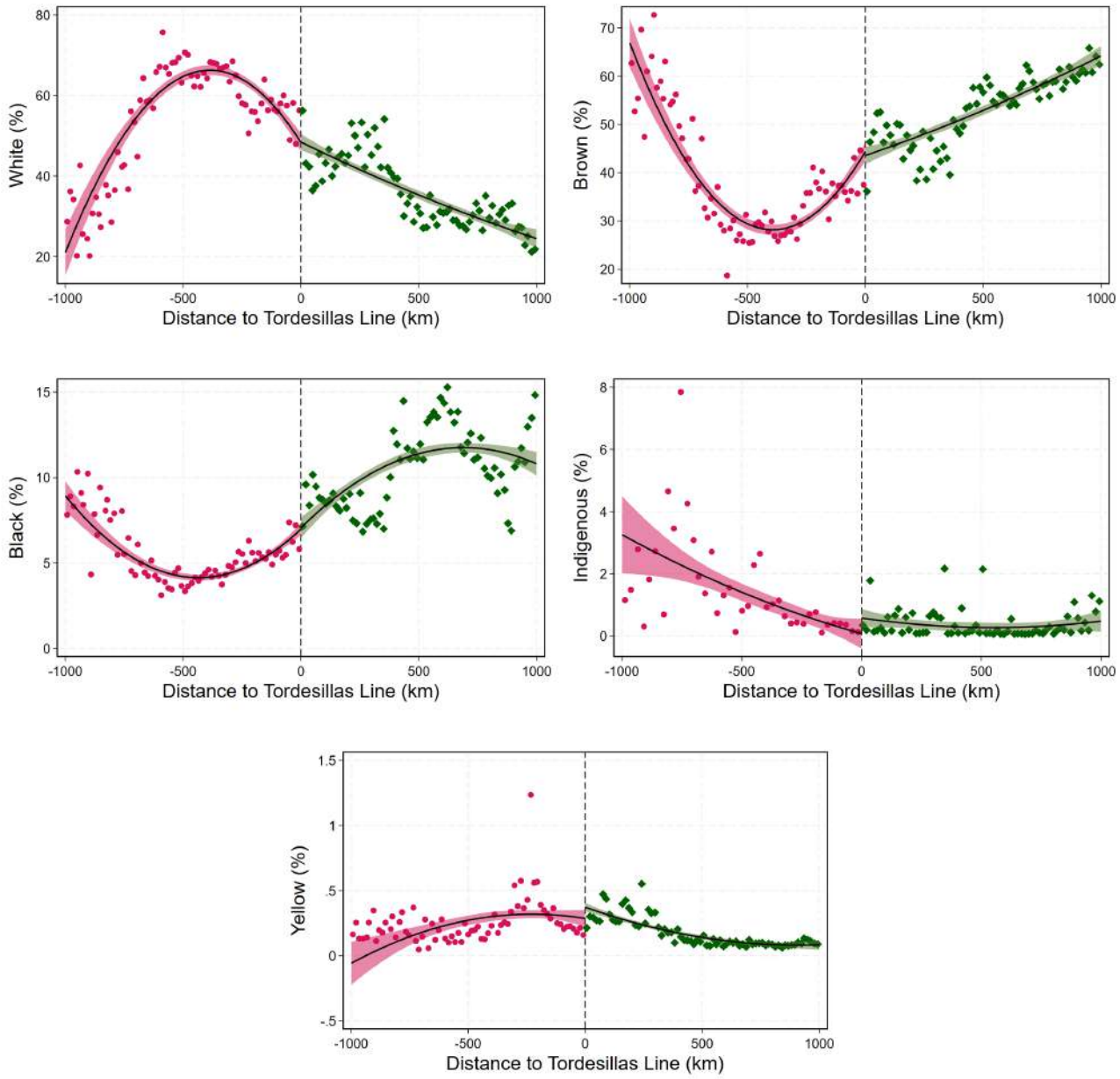
Notes: The figure presents RDD plots illustrating the relationship between the distance to the Tordesillas Line as the running variable and the vote share of the Workers' Party presidential candidates in the second round of elections. The bandwidth is set to 1,000 km on each side of the Tordesillas Line. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Portuguese Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the vote share within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A13: Tordesillas Line and Covariates (RDD Plots)



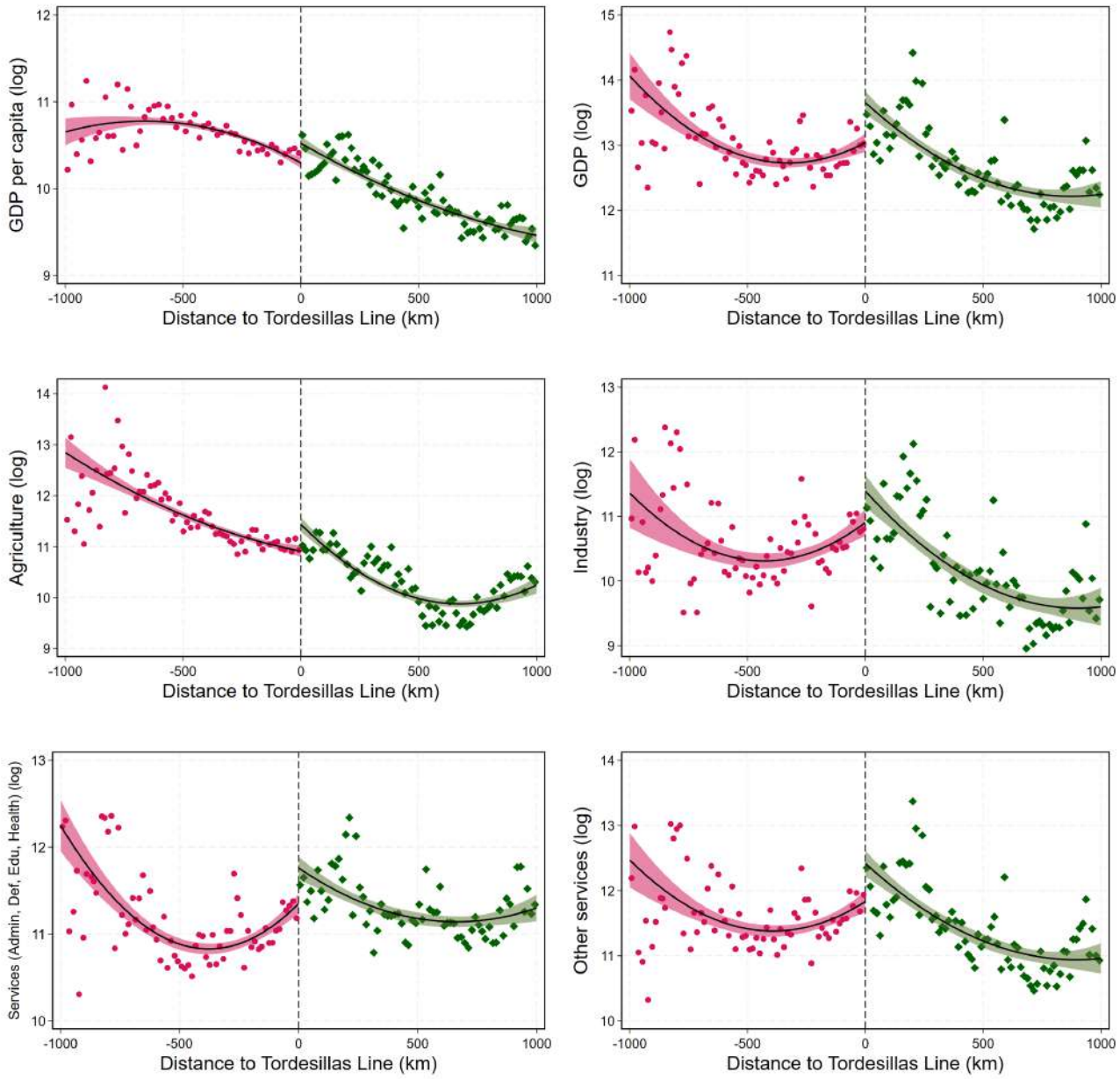
Notes: The figure presents RDD plots illustrating the relationship between the distance to the Tordesillas Line as the running variable and the covariates. The bandwidth is set to 1,000 km on each side of the Tordesillas Line. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Portuguese Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the covariates within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A14: Tordesillas Line and Color or Race in 2022 (RDD Plots)



Notes: The figure presents RDD plots illustrating the relationship between the distance to the Tordesillas Line as the running variable and the racial composition in 2022. The bandwidth is set to 1,000 km on each side of the Tordesillas Line. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Portuguese Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the racial shares within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A15: Tordesillas Line and Economy in 2021 (RDD Plots)



Notes: The figure presents RDD plots illustrating the relationship between the distance to the Tordesillas Line as the running variable and the measures of economic activity in 2021. The bandwidth is set to 1,000 km on each side of the Tordesillas Line. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Portuguese Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the economic variables within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Table A17: Dutch Brazil Border and Political Preferences (RDD)

	Bandwidth					
	$0 < d < 600$	$15 < d < 600$	$30 < d < 600$	$0 < d < 300$	$15 < d < 300$	$30 < d < 300$
	Dependent variable: Lula's vote share in 2002					
Dutch Brazil border (linear RDD)	−0.050***	−0.062***	−0.055***	−0.027*	−0.044**	−0.028
	(0.011)	(0.013)	(0.014)	(0.015)	(0.017)	(0.020)
Dutch Brazil border (quadratic RDD)	−0.016	−0.028	−0.004	−0.011	−0.039	0.017
	(0.016)	(0.018)	(0.022)	(0.021)	(0.029)	(0.043)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1926	1870	1825	1017	961	916
Mean dependent variable	0.506	0.504	0.503	0.518	0.515	0.512
	Dependent variable: Lula's vote share in 2006					
Dutch Brazil border (linear RDD)	−0.064***	−0.075***	−0.083***	−0.039***	−0.050***	−0.060***
	(0.007)	(0.008)	(0.008)	(0.009)	(0.011)	(0.012)
Dutch Brazil border (quadratic RDD)	−0.045***	−0.059***	−0.069***	0.011	0.031	0.059**
	(0.010)	(0.012)	(0.014)	(0.013)	(0.021)	(0.025)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.769	0.767	0.766	0.786	0.783	0.781
	Dependent variable: Rousseff's vote share in 2010					
Dutch Brazil border (linear RDD)	−0.025***	−0.033***	−0.037***	−0.018*	−0.028**	−0.037***
	(0.008)	(0.008)	(0.009)	(0.010)	(0.012)	(0.013)
Dutch Brazil border (quadratic RDD)	−0.020*	−0.033**	−0.040***	0.014	0.016	0.022
	(0.011)	(0.013)	(0.015)	(0.015)	(0.023)	(0.027)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.723	0.721	0.719	0.753	0.751	0.749

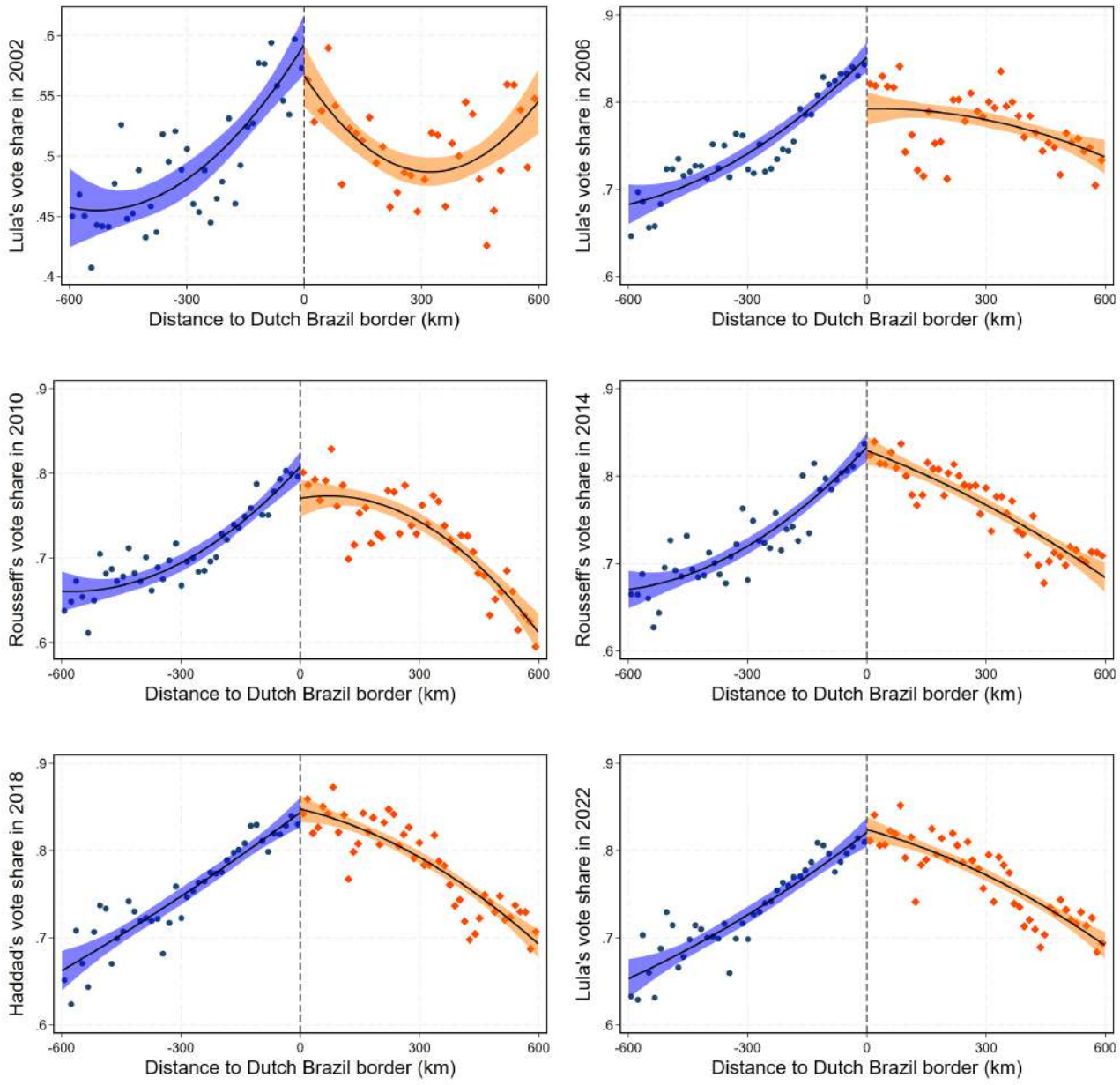
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Dutch Brazil border. The treatment group includes municipalities historically located within Dutch Brazil, and the running variable measures the distance to the Dutch Brazil border. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Tordesillas Line. Each column presents estimates for alternative bandwidths around the historical border. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A18: Dutch Brazil Border and Political Preferences (RDD)

	Bandwidth					
	$0 < d < 600$	$15 < d < 600$	$30 < d < 600$	$0 < d < 300$	$15 < d < 300$	$30 < d < 300$
	Dependent variable: Rousseff's vote share in 2014					
Dutch Brazil border (linear RDD)	0.008	0.009	0.009	−0.004	−0.005	−0.008
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Dutch Brazil border (quadratic RDD)	−0.002	−0.003	−0.004	0.008	0.016	0.018
	(0.008)	(0.010)	(0.012)	(0.011)	(0.017)	(0.022)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.755	0.752	0.750	0.789	0.787	0.785
	Dependent variable: Haddad's vote share in 2018					
Dutch Brazil border (linear RDD)	0.017***	0.017**	0.015**	0.011	0.009	0.005
	(0.006)	(0.007)	(0.007)	(0.008)	(0.010)	(0.010)
Dutch Brazil border (quadratic RDD)	0.013	0.011	0.009	0.029**	0.039**	0.043**
	(0.009)	(0.011)	(0.012)	(0.012)	(0.017)	(0.021)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.775	0.774	0.772	0.814	0.812	0.811
	Dependent variable: Lula's vote share in 2022					
Dutch Brazil border (linear RDD)	0.016***	0.017**	0.015**	0.014*	0.015	0.013
	(0.006)	(0.007)	(0.007)	(0.008)	(0.010)	(0.011)
Dutch Brazil border (quadratic RDD)	0.015*	0.017	0.016	0.026**	0.039**	0.046**
	(0.009)	(0.011)	(0.012)	(0.011)	(0.017)	(0.021)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.756	0.755	0.753	0.790	0.789	0.788

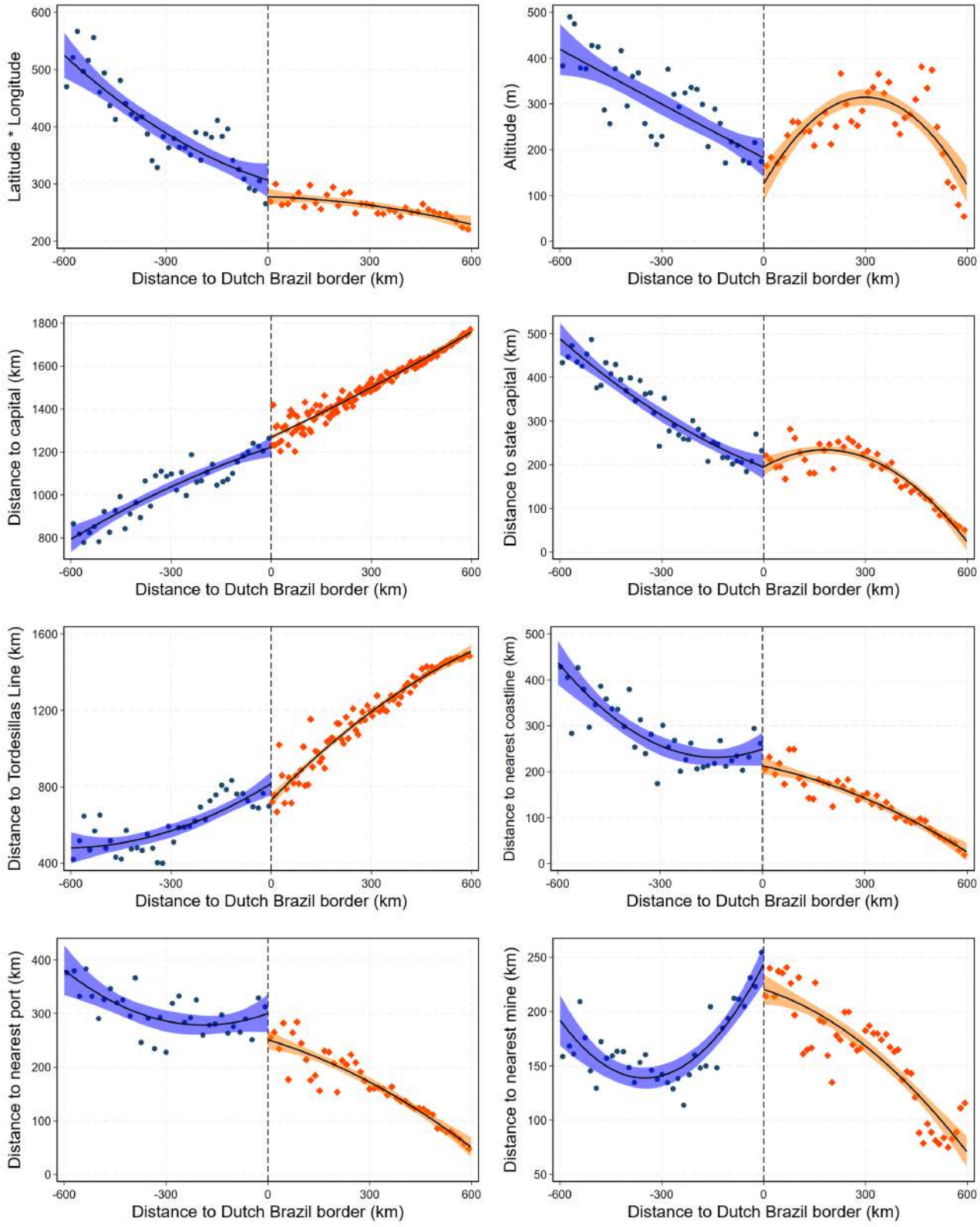
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Dutch Brazil border. The treatment group includes municipalities historically located within Dutch Brazil, and the running variable measures the distance to the Dutch Brazil border. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Tordesillas Line. Each column presents estimates for alternative bandwidths around the historical border. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A16: Dutch Brazil Border and Political Preferences (RDD Plots)



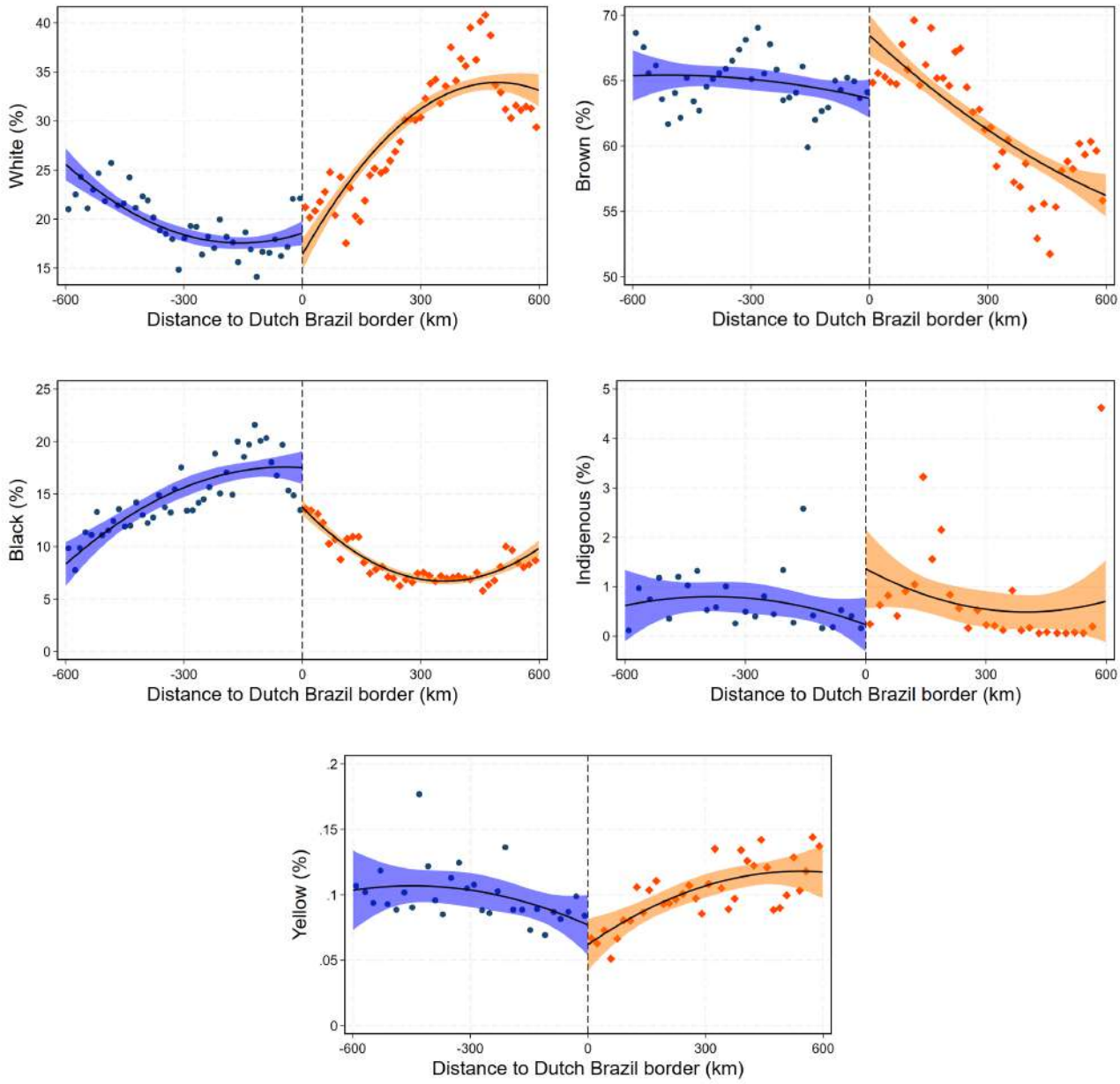
Notes: The figure presents RDD plots illustrating the relationship between the distance to the Dutch Brazil border as the running variable and the vote share of the Workers' Party presidential candidates in the second round of elections. The bandwidth is set to 600 km on each side of the Dutch Brazil border. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Dutch Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the vote share within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A17: Dutch Brazil Border and Covariates (RDD Plots)



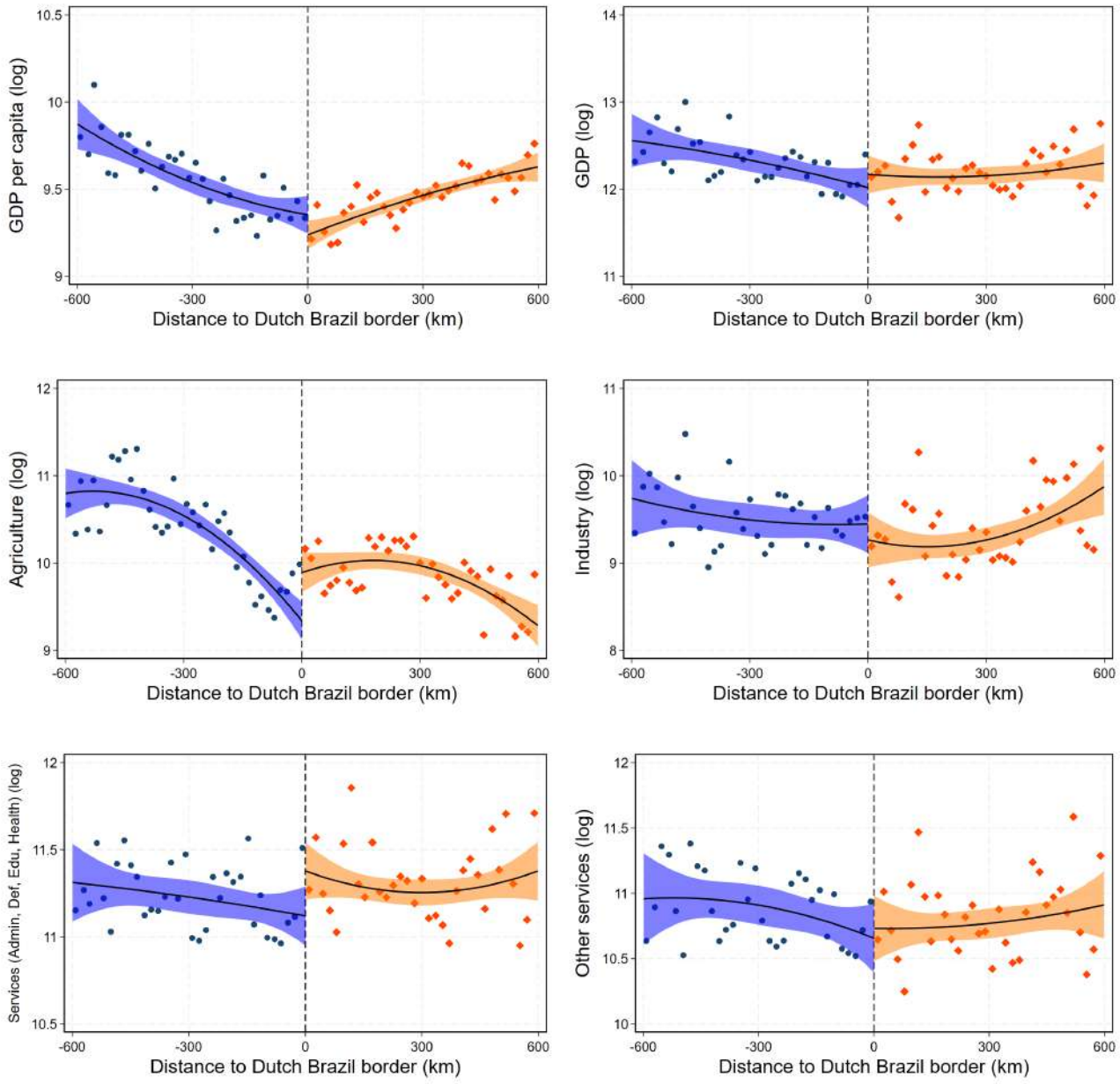
Notes: The figure presents RDD plots illustrating the relationship between the distance to the Dutch Brazil border as the running variable and the covariates. The bandwidth is set to 600 km on each side of the Dutch Brazil border. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Dutch Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the covariates within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A18: Dutch Brazil Border and Color or Race in 2022 (RDD Plots)



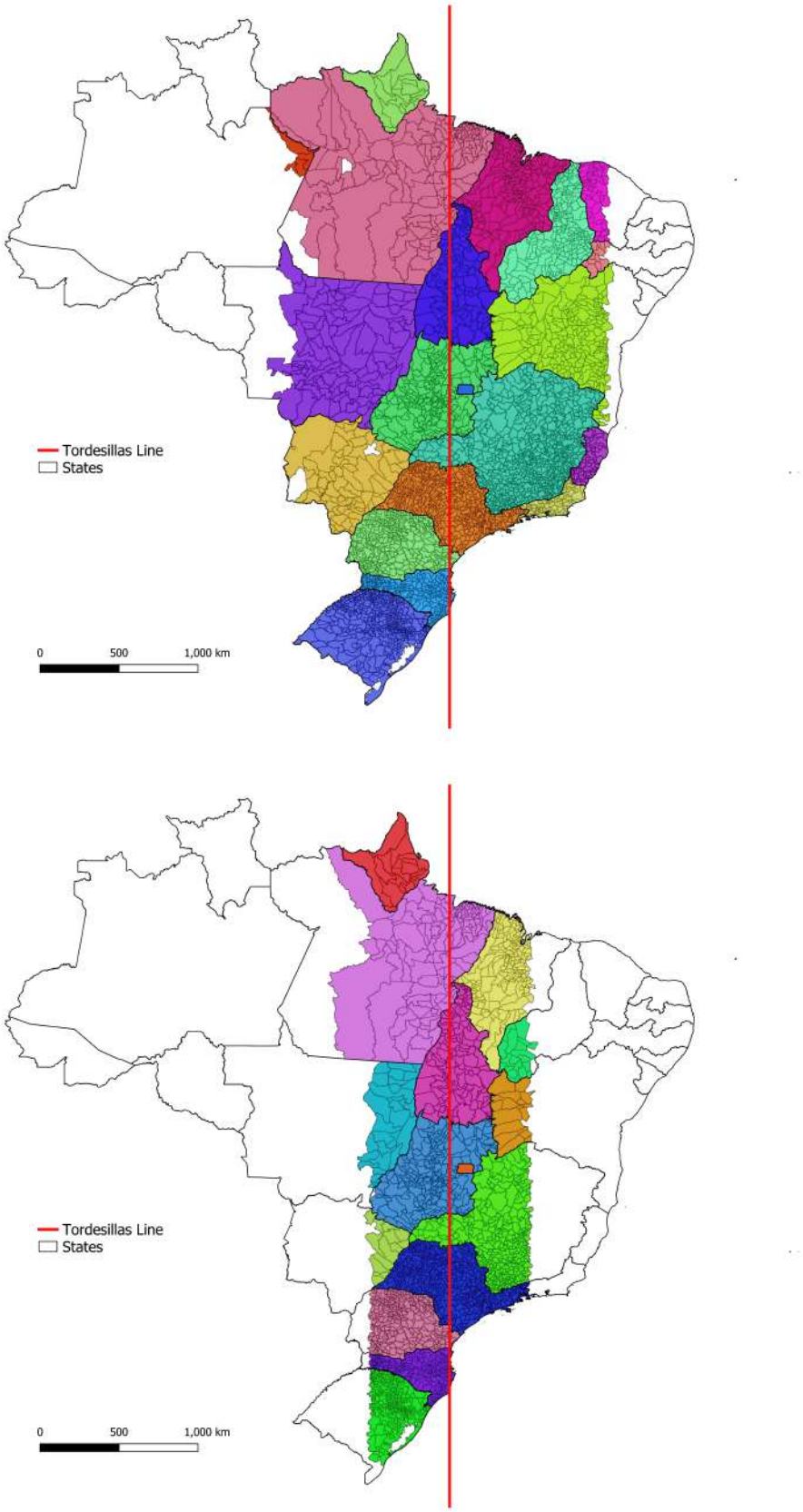
Notes: The figure presents RDD plots illustrating the relationship between the distance to the Dutch Brazil border as the running variable and the racial composition in 2022. The bandwidth is set to 600 km on each side of the Dutch Brazil border. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Dutch Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the racial shares within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A19: Dutch Brazil Border and Economy in 2021 (RDD Plots)



Notes: The figure presents RDD plots illustrating the relationship between the distance to the Dutch Brazil border as the running variable and the measures of economic activity in 2021. The bandwidth is set to 600 km on each side of the Dutch Brazil border. The fitted lines with 95% confidence intervals, estimated using the quadratic polynomial specification, are shown separately for municipalities historically located within Dutch Brazil (right of the cutoff) and those outside it (left of the cutoff). Markers represent binned averages of the economic variables within intervals of the running variable, calculated as the average outcome for municipalities grouped into evenly spaced bins based on mimicking-variance spacings estimators.

Figure A20: Municipalities around Tordesillas Line (State Fixed Effects)



Notes: The figure shows municipalities located within 1,000 km (top map) and 500 km (bottom map) of the Tordesillas Line, grouped by their respective states that are depicted in different colors.

Table A19: Tordesillas Line and Political Preferences (RDD - State Fixed Effects)

	Bandwidth					
	$0 < d < 1000$	$25 < d < 1000$	$50 < d < 1000$	$0 < d < 500$	$25 < d < 500$	$50 < d < 500$
	Dependent variable: Lula's vote share in 2002					
Tordesillas Line (linear RDD)	0.017***	0.024***	0.018***	0.014**	0.023***	0.007
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	0.007	0.012	−0.009	0.007	0.033**	−0.008
	(0.008)	(0.009)	(0.011)	(0.010)	(0.014)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4344	4178	4038	2715	2549	2409
Mean dependent variable	0.542	0.543	0.542	0.534	0.534	0.532
	Dependent variable: Lula's vote share in 2006					
Tordesillas Line (linear RDD)	0.008	0.008	0.006	0.027***	0.039***	0.042***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	0.018**	0.023**	0.023**	0.019*	0.047***	0.057***
	(0.008)	(0.010)	(0.011)	(0.010)	(0.015)	(0.019)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.585	0.588	0.589	0.533	0.534	0.533
	Dependent variable: Rousseff's vote share in 2010					
Tordesillas Line (linear RDD)	−0.009*	−0.008	−0.007	0.008	0.019**	0.027***
	(0.005)	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	−0.001	0.003	0.007	−0.006	0.006	0.015
	(0.008)	(0.009)	(0.010)	(0.010)	(0.014)	(0.017)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4347	4181	4041	2714	2548	2408
Mean dependent variable	0.571	0.574	0.576	0.527	0.530	0.531

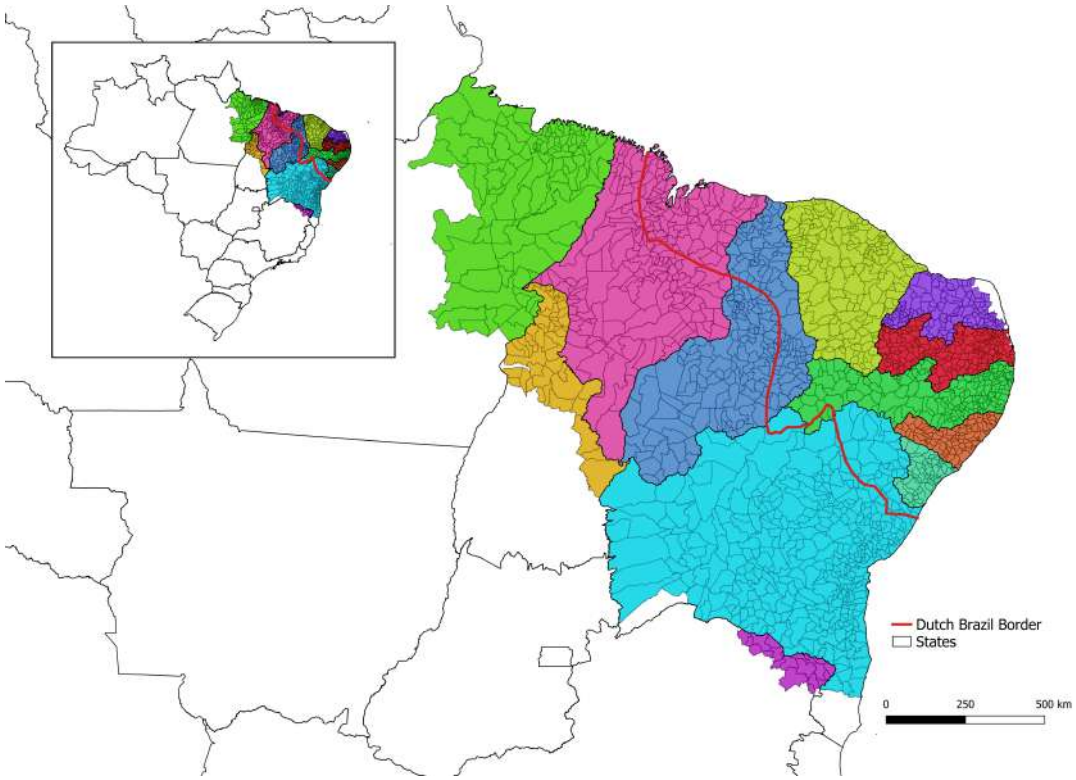
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Tordesillas Line. The treatment group includes municipalities historically located within Portuguese Brazil, and the running variable measures the distance to the Tordesillas Line. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Dutch Brazil border. Each column presents estimates for alternative bandwidths around the historical line. All specifications include state fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

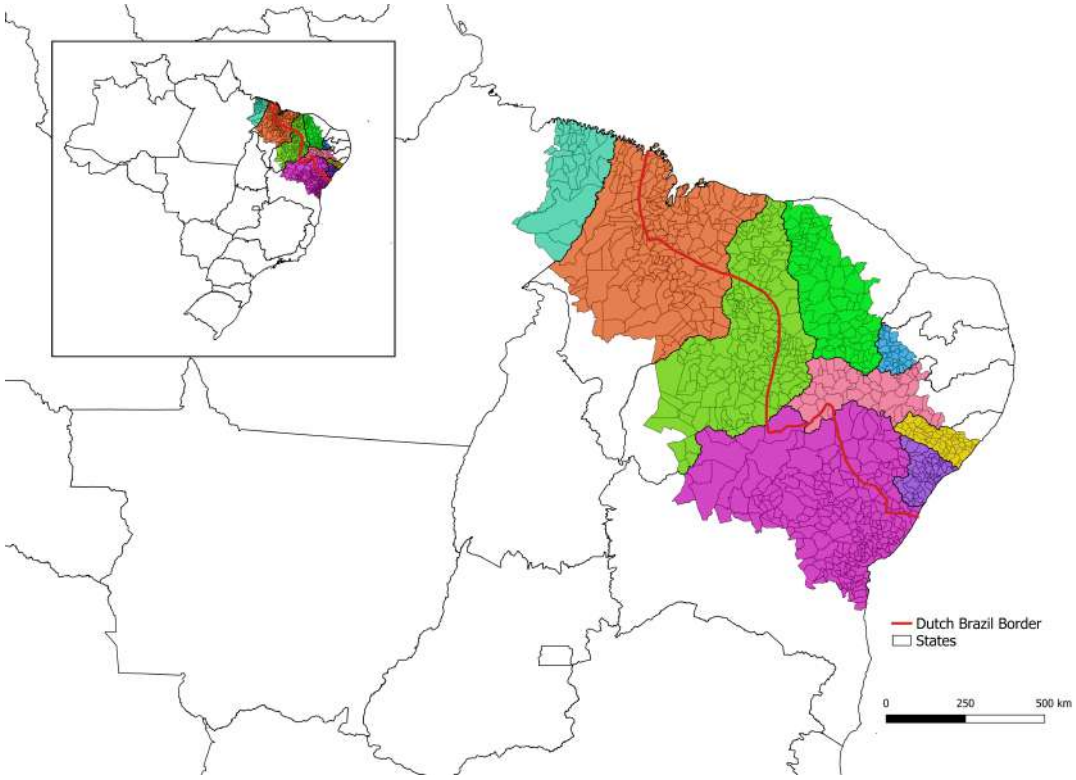
Table A20: Tordesillas Line and Political Preferences (RDD - State Fixed Effects)

	Bandwidth					
	$0 < d < 1000$	$25 < d < 1000$	$50 < d < 1000$	$0 < d < 500$	$25 < d < 500$	$50 < d < 500$
	Dependent variable: Rousseff's vote share in 2014					
Tordesillas Line (linear RDD)	0.004	0.004	0.004	0.030***	0.043***	0.053***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	0.025***	0.033***	0.038***	0.028**	0.051***	0.078***
	(0.008)	(0.009)	(0.010)	(0.011)	(0.014)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.540	0.544	0.547	0.480	0.483	0.485
	Dependent variable: Haddad's vote share in 2018					
Tordesillas Line (linear RDD)	0.017***	0.017**	0.016**	0.047***	0.061***	0.073***
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	0.043***	0.055***	0.060***	0.040***	0.065***	0.091***
	(0.008)	(0.010)	(0.011)	(0.011)	(0.016)	(0.019)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.483	0.487	0.491	0.415	0.418	0.421
	Dependent variable: Lula's vote share in 2022					
Tordesillas Line (linear RDD)	0.018***	0.017***	0.014**	0.043***	0.053***	0.057***
	(0.005)	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	0.034***	0.040***	0.037***	0.042***	0.064***	0.077***
	(0.007)	(0.009)	(0.010)	(0.010)	(0.014)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.519	0.523	0.526	0.463	0.465	0.467

Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Tordesillas Line. The treatment group includes municipalities historically located within Portuguese Brazil, and the running variable measures the distance to the Tordesillas Line. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Dutch Brazil border. Each column presents estimates for alternative bandwidths around the historical line. All specifications include state fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A21: Municipalities around Dutch Brazil Border (State Fixed Effects)





Notes: The figure shows municipalities located within 600 km (top map) and 300 km (bottom map) of the Dutch Brazil border, grouped by their respective states that are depicted in different colors.

Table A21: Dutch Brazil Border and Political Preferences (RDD - State Fixed Effects)

	Bandwidth					
	$0 < d < 600$	$15 < d < 600$	$30 < d < 600$	$0 < d < 300$	$15 < d < 300$	$30 < d < 300$
	Dependent variable: Lula's vote share in 2002					
Dutch Brazil border (linear RDD)	-0.045^{***}	-0.054^{***}	-0.045^{***}	-0.029^{**}	-0.044^{***}	-0.027
	(0.011)	(0.012)	(0.013)	(0.015)	(0.017)	(0.020)
Dutch Brazil border (quadratic RDD)	-0.024	-0.037^{**}	-0.015	-0.007	-0.024	0.045
	(0.016)	(0.018)	(0.022)	(0.022)	(0.029)	(0.042)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1926	1870	1825	1017	961	916
Mean dependent variable	0.506	0.504	0.503	0.518	0.515	0.512
	Dependent variable: Lula's vote share in 2006					
Dutch Brazil border (linear RDD)	-0.022^{***}	-0.023^{***}	-0.022^{***}	-0.016^{*}	-0.014	-0.009
	(0.007)	(0.008)	(0.008)	(0.009)	(0.011)	(0.012)
Dutch Brazil border (quadratic RDD)	-0.026^{***}	-0.030^{**}	-0.029^{**}	0.005	0.030	0.074^{***}
	(0.010)	(0.012)	(0.014)	(0.013)	(0.019)	(0.025)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.769	0.767	0.766	0.786	0.783	0.781
	Dependent variable: Rousseff's vote share in 2010					
Dutch Brazil border (linear RDD)	0.006	0.007	0.008	-0.001	-0.001	-0.001
	(0.007)	(0.008)	(0.008)	(0.010)	(0.012)	(0.013)
Dutch Brazil border (quadratic RDD)	-0.010	-0.016	-0.017	0.013	0.023	0.045^{*}
	(0.010)	(0.012)	(0.014)	(0.014)	(0.021)	(0.027)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.723	0.721	0.719	0.753	0.751	0.749

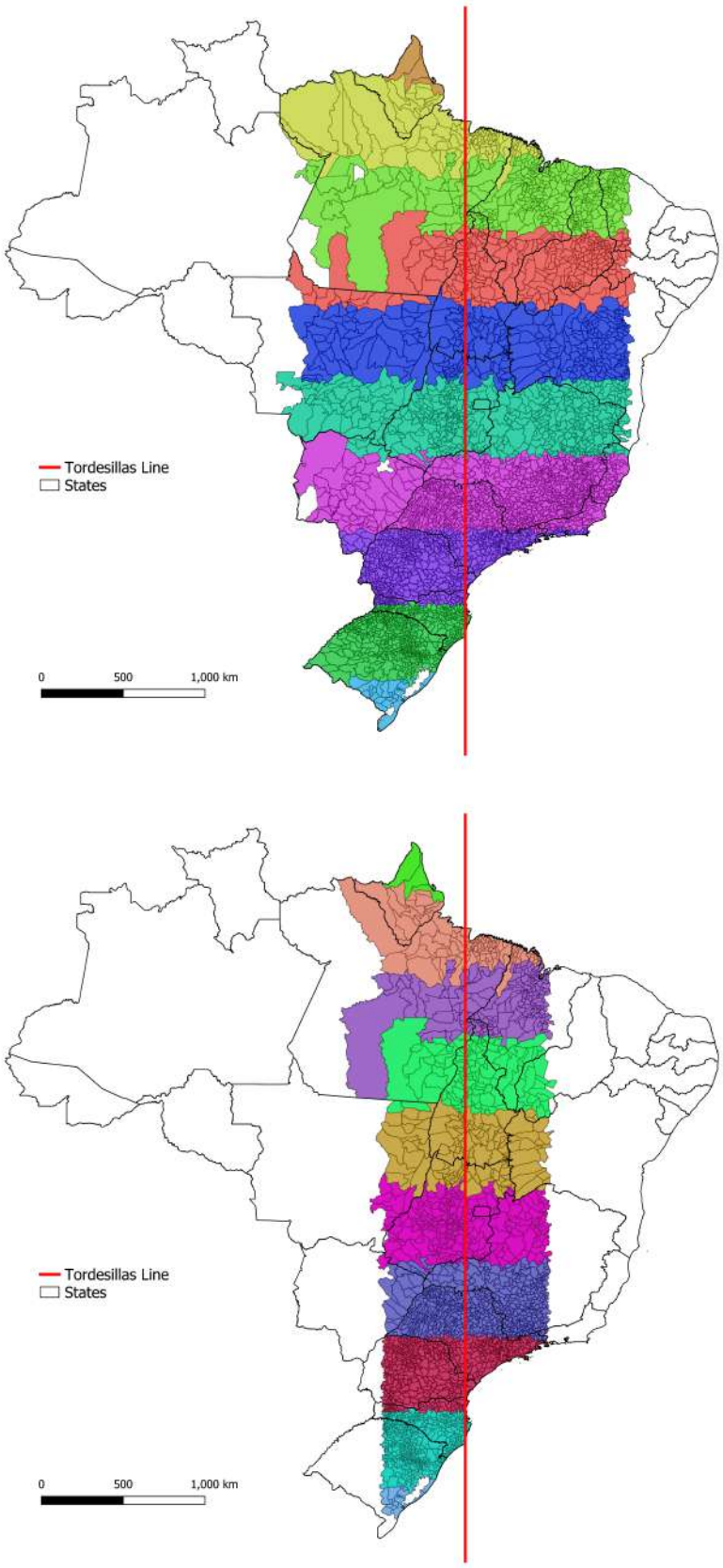
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Dutch Brazil border. The treatment group includes municipalities historically located within Dutch Brazil, and the running variable measures the distance to the Dutch Brazil border. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Tordesillas Line. Each column presents estimates for alternative bandwidths around the historical border. All specifications include state fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A22: Dutch Brazil Border and Political Preferences (RDD - State Fixed Effects)

	Bandwidth					
	$0 < d < 600$	$15 < d < 600$	$30 < d < 600$	$0 < d < 300$	$15 < d < 300$	$30 < d < 300$
	Dependent variable: Rousseff's vote share in 2014					
Dutch Brazil border (linear RDD)	0.011*	0.013**	0.014*	−0.001	−0.001	−0.002
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Dutch Brazil border (quadratic RDD)	−0.006	−0.009	−0.012	0.009	0.021	0.030
	(0.008)	(0.010)	(0.012)	(0.011)	(0.017)	(0.022)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.755	0.752	0.750	0.789	0.787	0.785
	Dependent variable: Haddad's vote share in 2018					
Dutch Brazil border (linear RDD)	0.017***	0.018***	0.017**	0.011	0.010	0.006
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Dutch Brazil border (quadratic RDD)	0.005	0.001	−0.005	0.027**	0.040**	0.048**
	(0.009)	(0.010)	(0.012)	(0.012)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.775	0.774	0.772	0.814	0.812	0.811
	Dependent variable: Lula's vote share in 2022					
Dutch Brazil border (linear RDD)	0.018***	0.021***	0.020***	0.012	0.013	0.011
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Dutch Brazil border (quadratic RDD)	0.006	0.006	0.001	0.023**	0.039**	0.049**
	(0.008)	(0.010)	(0.012)	(0.011)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.756	0.755	0.753	0.790	0.789	0.788

Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Dutch Brazil border. The treatment group includes municipalities historically located within Dutch Brazil, and the running variable measures the distance to the Dutch Brazil border. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Tordesillas Line. Each column presents estimates for alternative bandwidths around the historical border. All specifications include state fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A22: Municipalities around Tordesillas Line (Border Segment Fixed Effects)



Notes: The figure shows municipalities located within 1,000 km (top map) and 500 km (bottom map) of the Tordesillas Line. The Tordesillas Line is divided into 10 border segments, and municipalities are categorized according to these segments, which are displayed in different colors.

Table A23: Tordesillas Line and Political Preferences (RDD - Border Segment Fixed Effects)

	Bandwidth					
	$0 < d < 1000$	$25 < d < 1000$	$50 < d < 1000$	$0 < d < 500$	$25 < d < 500$	$50 < d < 500$
	Dependent variable: Lula's vote share in 2002					
Tordesillas Line (linear RDD)	−0.001	−0.004	−0.011	−0.004	−0.016*	−0.035***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	−0.016**	−0.033***	−0.056***	0.004	0.001	−0.041**
	(0.008)	(0.010)	(0.011)	(0.010)	(0.015)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4344	4178	4038	2715	2549	2409
Mean dependent variable	0.542	0.543	0.542	0.534	0.534	0.532
	Dependent variable: Lula's vote share in 2006					
Tordesillas Line (linear RDD)	0.012*	0.009	0.008	0.010	0.005	−0.001
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	−0.007	−0.022**	−0.031***	0.014	0.021	0.017
	(0.009)	(0.010)	(0.011)	(0.011)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.585	0.588	0.589	0.533	0.534	0.533
	Dependent variable: Rousseff's vote share in 2010					
Tordesillas Line (linear RDD)	0.001	0.003	0.004	−0.004	−0.004	−0.004
	(0.006)	(0.006)	(0.007)	(0.007)	(0.009)	(0.009)
Tordesillas Line (quadratic RDD)	−0.022***	−0.034***	−0.040***	−0.007	−0.007	−0.012
	(0.008)	(0.010)	(0.011)	(0.010)	(0.015)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4347	4181	4041	2714	2548	2408
Mean dependent variable	0.571	0.574	0.576	0.527	0.530	0.531

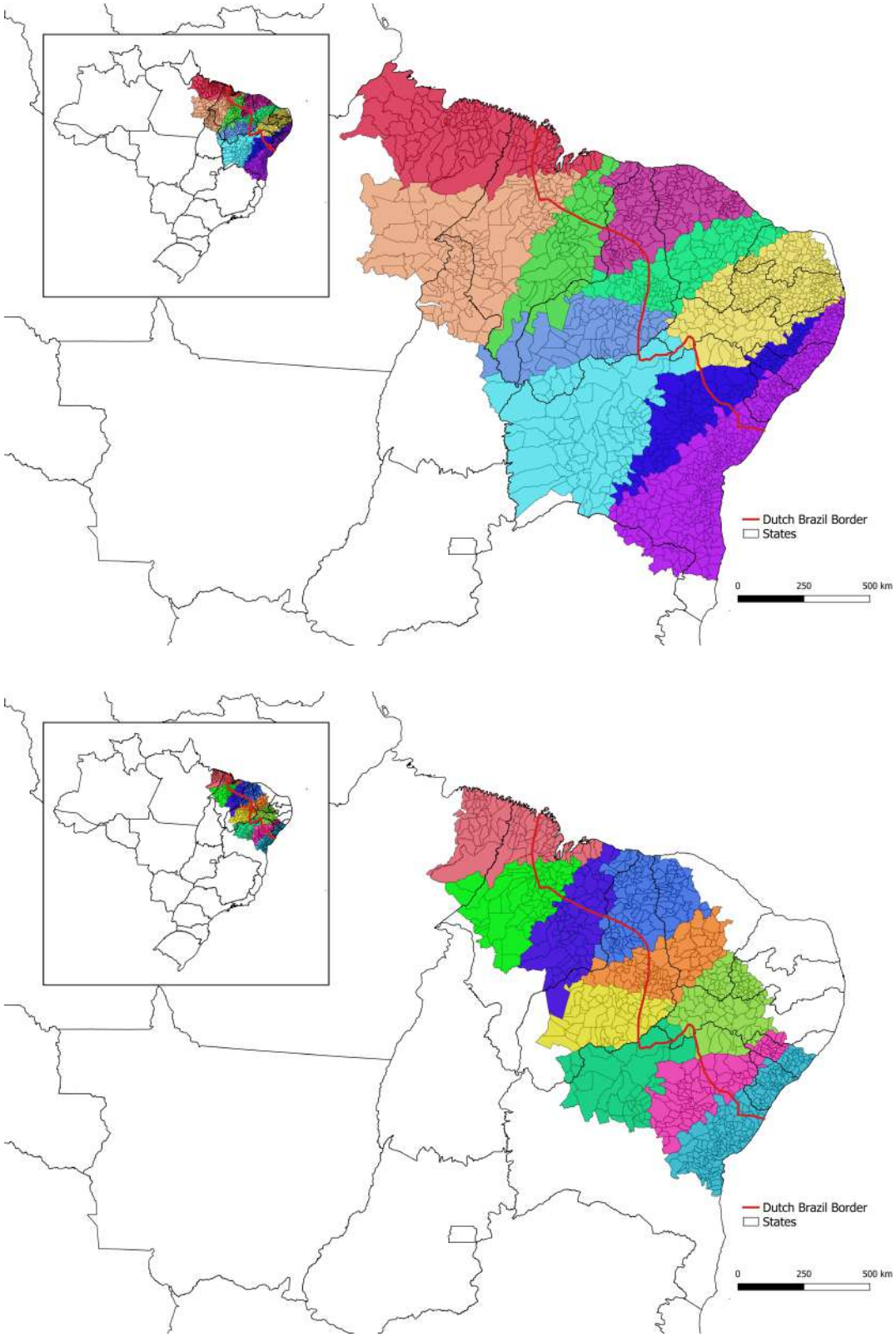
Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Tordesillas Line. The treatment group includes municipalities historically located within Portuguese Brazil, and the running variable measures the distance to the Tordesillas Line. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Dutch Brazil border. Each column presents estimates for alternative bandwidths around the historical line. All specifications include border segment fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A24: Tordesillas Line and Political Preferences (RDD - Border Segment Fixed Effects)

	Bandwidth					
	$0 < d < 1000$	$25 < d < 1000$	$50 < d < 1000$	$0 < d < 500$	$25 < d < 500$	$50 < d < 500$
	Dependent variable: Rousseff's vote share in 2014					
Tordesillas Line (linear RDD)	0.005	0.002	0.001	0.012	0.008	0.006
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	0.001	−0.011	−0.018	0.026**	0.034**	0.043**
	(0.009)	(0.010)	(0.012)	(0.012)	(0.016)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.540	0.544	0.547	0.480	0.483	0.485
	Dependent variable: Haddad's vote share in 2018					
Tordesillas Line (linear RDD)	0.014**	0.011*	0.008	0.030***	0.032***	0.031***
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.010)
Tordesillas Line (quadratic RDD)	0.021**	0.018*	0.012	0.039***	0.059***	0.069***
	(0.009)	(0.010)	(0.012)	(0.012)	(0.017)	(0.020)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.483	0.487	0.491	0.415	0.418	0.421
	Dependent variable: Lula's vote share in 2022					
Tordesillas Line (linear RDD)	0.023***	0.024***	0.019***	0.033***	0.038***	0.034***
	(0.006)	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)
Tordesillas Line (quadratic RDD)	0.019**	0.017*	0.003	0.041***	0.065***	0.063***
	(0.008)	(0.010)	(0.011)	(0.011)	(0.015)	(0.018)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4348	4182	4042	2715	2549	2409
Mean dependent variable	0.519	0.523	0.526	0.463	0.465	0.467

Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Tordesillas Line. The treatment group includes municipalities historically located within Portuguese Brazil, and the running variable measures the distance to the Tordesillas Line. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Dutch Brazil border. Each column presents estimates for alternative bandwidths around the historical line. All specifications include border segment fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Figure A23: Municipalities around Dutch Brazil Border (Border Segment Fixed Effects)



Notes: The figure shows municipalities located within 600 km (top map) and 300 km (bottom map) of the Dutch Brazil border. The Dutch Brazil border is divided into 10 border segments, and municipalities are categorized according to these segments, which are displayed in different colors.

Table A25: Dutch Brazil Border and Political Preferences (RDD - Border Segment Fixed Effects)

	Bandwidth					
	$0 < d < 600$	$15 < d < 600$	$30 < d < 600$	$0 < d < 300$	$15 < d < 300$	$30 < d < 300$
	Dependent variable: Lula's vote share in 2002					
Dutch Brazil border (linear RDD)	-0.069^{***}	-0.084^{***}	-0.081^{***}	-0.034^{**}	-0.051^{***}	-0.038^{*}
	(0.012)	(0.013)	(0.014)	(0.015)	(0.017)	(0.021)
Dutch Brazil border (quadratic RDD)	-0.020	-0.031^{*}	-0.011	-0.006	-0.025	0.035
	(0.016)	(0.019)	(0.023)	(0.022)	(0.030)	(0.044)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1926	1870	1825	1017	961	916
Mean dependent variable	0.506	0.504	0.503	0.518	0.515	0.512
	Dependent variable: Lula's vote share in 2006					
Dutch Brazil border (linear RDD)	-0.052^{***}	-0.065^{***}	-0.068^{***}	-0.039^{***}	-0.056^{***}	-0.063^{***}
	(0.009)	(0.010)	(0.010)	(0.011)	(0.014)	(0.015)
Dutch Brazil border (quadratic RDD)	-0.048^{***}	-0.070^{***}	-0.080^{***}	0.004	-0.002	0.015
	(0.012)	(0.015)	(0.016)	(0.016)	(0.026)	(0.030)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.769	0.767	0.766	0.786	0.783	0.781
	Dependent variable: Rousseff's vote share in 2010					
Dutch Brazil border (linear RDD)	-0.017^{*}	-0.026^{**}	-0.028^{**}	-0.019	-0.035^{**}	-0.044^{**}
	(0.009)	(0.011)	(0.011)	(0.012)	(0.015)	(0.017)
Dutch Brazil border (quadratic RDD)	-0.025^{*}	-0.045^{***}	-0.053^{***}	0.003	-0.017	-0.026
	(0.013)	(0.016)	(0.018)	(0.017)	(0.027)	(0.034)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.723	0.721	0.719	0.753	0.751	0.749

Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Dutch Brazil border. The treatment group includes municipalities historically located within Dutch Brazil, and the running variable measures the distance to the Dutch Brazil border. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Tordesillas Line. Each column presents estimates for alternative bandwidths around the historical border. All specifications include border segment fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.

Table A26: Dutch Brazil Border and Political Preferences (RDD - Border Segment Fixed Effects)

	Bandwidth					
	$0 < d < 600$	$15 < d < 600$	$30 < d < 600$	$0 < d < 300$	$15 < d < 300$	$30 < d < 300$
	Dependent variable: Rousseff's vote share in 2014					
Dutch Brazil border (linear RDD)	0.020**	0.021**	0.024**	−0.004	−0.011	−0.014
	(0.009)	(0.010)	(0.010)	(0.012)	(0.014)	(0.015)
Dutch Brazil border (quadratic RDD)	−0.008	−0.018	−0.021	−0.008	−0.028	−0.047
	(0.012)	(0.015)	(0.017)	(0.017)	(0.025)	(0.032)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.755	0.752	0.750	0.789	0.787	0.785
	Dependent variable: Haddad's vote share in 2018					
Dutch Brazil border (linear RDD)	0.037***	0.037***	0.040***	0.011	0.002	−0.001
	(0.010)	(0.011)	(0.012)	(0.014)	(0.016)	(0.018)
Dutch Brazil border (quadratic RDD)	0.004	−0.008	−0.014	0.004	−0.023	−0.049
	(0.014)	(0.017)	(0.019)	(0.020)	(0.028)	(0.036)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.775	0.774	0.772	0.814	0.812	0.811
	Dependent variable: Lula's vote share in 2022					
Dutch Brazil border (linear RDD)	0.031***	0.031***	0.015**	0.012	0.007	0.004
	(0.009)	(0.010)	(0.007)	(0.012)	(0.014)	(0.016)
Dutch Brazil border (quadratic RDD)	0.006	−0.002	−0.007	0.005	−0.011	−0.029
	(0.013)	(0.015)	(0.017)	(0.017)	(0.024)	(0.032)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Segment fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1928	1872	1827	1019	963	918
Mean dependent variable	0.756	0.755	0.753	0.790	0.789	0.788

Notes: The table shows estimates from linear and quadratic RDD examining the discontinuity in the vote share of the Workers' Party presidential candidates in the second round of elections at the Dutch Brazil border. The treatment group includes municipalities historically located within Dutch Brazil, and the running variable measures the distance to the Dutch Brazil border. The set of covariates in all specifications includes latitude, longitude, altitude, distance to capital, distance to state capital, distance to nearest coastline, distance to nearest port, distance to nearest mine, and distance to Tordesillas Line. Each column presents estimates for alternative bandwidths around the historical border. All specifications include border segment fixed effects. Significance levels are * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses.