


# The need for electoral geography: the possibilities in the field

**Daniel Abreu de Azevedo**

Universidade de Brasília.  
Brasília, DF, Brasil.

E-mail: [daniel.azevedo@unb.br](mailto:daniel.azevedo@unb.br)

 0000-0001-5354-128X

e-204649

revista

Geo 

USP

espaço e tempo

Volume 27 • n° 2 (2023)

ISSN 2179-0892

## How to cite this article:

AZEVEDO, D.A. The need for electoral geography: the possibilities in the field. **Geosp**, v. 27, n. 2, e-204649, may/aug. 2023. ISSN 2179-0892. Available at: <https://www.revistas.usp.br/geosp/article/view/204649>. doi: <https://doi.org/10.11606/issn.2179-0892.geosp.2023.204649.en>.



This article is licensed under the Creative Commons Attribution 4.0 License.

# The need for electoral geography: the possibilities in the field

---

## Abstract

The current abundance of georeferencing software and new statistical techniques have expanded the possibilities in Electoral Geography. This article aims to analyze the production within this field, revealing gaps in the Brazilian production compared to that produced in the English language. The methodology used was the narrative literature review based on the SANRA protocol, which systematizes and reveals possible research paths. The research revealed that, within the three major themes of electoral geography, there is a distinct concentration of interest between national and foreign production, the first being focused on the compositional effect and the second on the contextual effect. In addition, only 4% of production in Brazil is carried out by geographers and 14% in magazines specialized in geography. Finally, it is suggested to overcome the supposed dichotomy between compositional effect and contextual effect, by positioning both as rich fields of electoral geography.

**Keywords:** electoral geography, voting geography, compositional effect, contextual effect, narrative review.

---

## A necessidade da geografia eleitoral: as possibilidades do campo

---

### Resumo

A atual difusão de *softwares* de georreferenciamento e novas técnicas estatísticas expandiram as possibilidades na geografia eleitoral. O artigo tem como objetivo analisar a produção desse campo, revelando lacunas na produção brasileira em comparação à produção anglófona. A metodologia utilizada foi a revisão narrativa de literatura a partir do protocolo SANRA, que sistematiza e revela possíveis caminhos de pesquisa. A pesquisa revelou que, dentre as três grandes temáticas da geografia eleitoral, há uma concentração de interesse distinta entre a produção nacional e estrangeira, sendo a primeira focada no efeito composicional e a segunda no efeito contextual. Além disso, apenas 4% da produção no Brasil é realizada por geógrafos e 14% em revistas especializadas em geografia. Por fim, sugere-se superar

a suposta dicotomia entre efeito composicional e efeito contextual, posicionando ambas como campos ricos da geografia eleitoral.

**Palavras-chave:** geografia eleitoral, geografia do voto, efeito composicional, efeito contextual, revisão narrativa.

---

## La necesidad de la geografía electoral: las posibilidades del campo

---

### Resumén

La difusión actual de software de georreferenciación y nuevas técnicas estadísticas han ampliado las posibilidades en geografía electoral. El artículo tiene como objetivo analizar la producción de este campo, revelando brechas en la producción brasileña en comparación con la anglófona. La metodología utilizada fue la revisión narrativa de literatura basada en el protocolo SANRA, que sistematiza y revela posibles caminos de investigación. La investigación reveló que, entre los tres grandes temas de la geografía electoral, existe una clara concentración de interés entre la producción nacional y la extranjera, centrándose la primera en el efecto compositivo y la segunda en el efecto contextual. Además, solo el 4% de la producción en Brasil es realizada por geógrafos y el 14% en revistas especializadas en geografía. Finalmente, se sugiere superar la supuesta dicotomía entre efecto compositivo y efecto contextual, posicionando a ambos como campos ricos de la geografía electoral.

**Palabras clave:** geografía electoral, geografía del voto, efecto composicional, efecto contextual, revisión narrativa.

---

### Introduction

Every two years in Brazil, a profusion of colorful maps takes over television channels, newspapers, and multiplies across social media, which are used for engaging analysis and heated debate. Currently, there are several online platforms that generate real-time electoral maps at different political scales in Brazil. On the *Estadão* website<sup>1</sup>, for example, one can choose the election year, the elective position, the federal unit, the round, and even the geographic unit

---

<sup>1</sup> <https://arte.estadao.com.br/politica/eleicoes/geografia-do-voto/>. (July 19th, 2022).

(electoral zone or municipality). In less than a minute, the map is produced, and the vote is spatialized. According to the website, we have a “geography of the vote.”

It can be said that the imagetic world in which we live has breathed new life into discussions of electoral geography, opening up a fertile field of engagement for geographers interested in the spatiality of voting. “Neogeography” (SHIN, 2015), that is, the geography that emerged from the diffusion of Geographic Information System (GIS) software and users worldwide, generates curiosity and raises more questions about the phenomenon, thus increasing the need for reflection and the presence of geographers in this discussion.

The central objective of this article is, through a narrative literature review methodology, to analyze the national and international production in electoral geography, revealing characteristics and gaps in the Brazilian production. With this, the aim is to produce a text that serves as a foundation for undergraduate and postgraduate students who wish to better understand the field, its potentialities, and its challenges. This article stems from a demand I have felt over the years while teaching this discipline or related ones at the University of Brasília, as it is difficult to find a text in Portuguese that brings together the main issues of electoral geography while also highlighting concrete and contemporary cases that explore the field.

Thus, the article is divided into three parts. In the first part, I outline the methodological procedures of the research conducted here, and then position the field within academic geography based on classic works. Next, I divide electoral geography into two major research themes: the geography of representation and the geography of the vote. Within the latter, I separate it into two subsections: (a) the geographic space as composition and the political use of electoral maps; and (b) space as a contextual effect, along with its strategic use by candidates and parties. It is worth noting that electoral geography is essentially a field that demands many images, graphs, and tables, which often results in an article much larger than some Brazilian journals accept. Therefore, I have selected only those that are truly necessary for the presented argument, leaving important imagery products as references and indications. The article seeks to demonstrate the richness of the field and the urgent need for Brazilian geographers to engage in studies on the spatiality of the vote.

## Methodology

The selected methodology was a narrative review (APA, 2020)<sup>2</sup>, which examines the bibliographic productions that “describe trends in the studied theme, inform its state of the art, identify relationships, contradictions, and gaps, as well as suggest future directions for study” (AZEVEDO; URIAS; OLIVEIRA, 2023, p. 68). Unlike a literature survey, a literature review systematically seeks articles without pre-selecting authors. Furthermore, the search is limited

---

2 The choice of a narrative review rather than, for example, a systematic review or scoping review, is due to the breadth of the searches. In this article, we are not seeking a review on a specific research question but rather on a knowledge area that encompasses a wide theoretical diversity. The article was structured based on the SANRA protocol (BAETHGE; GOLDBECK-WOOD; MERTENS, 2019).

to articles in reputable journals, excluding books, chapters, and dissertations/theses. This methodology will help us outline the current landscape and identify important future paths.

Initially, the main political geography manuals were consulted to position the field within the well-known compartmentalization of historical periods in geographical science. Then, to analyze the production of national electoral geography, the SciELO database was used, employing the Boolean term “or” (“geografia eleitoral” OR “geografia do voto”) to yield 16 articles. Subsequently, articles that, after abstract analysis, did not correspond to electoral geography (n=2) and articles that, after full-text evaluation, were not relevant to this discussion (n=2) were discarded, totaling 12 articles. Another database, Redalyc, was used to expand the search in Brazilian journals. In total, 57 articles were found. We subtracted those already selected in the SciELO database (n=16) and those that did not directly relate to the topic (n=30), totaling 19 articles. In the end, three articles were excluded because they were not published in Brazilian journals (1 in *Revista Política, Globalidad y Ciudadania* and 2 in *Revista America Latina Hoy*<sup>3</sup>). The basis for analysis ultimately consisted of 23 articles.

To assess foreign language production, volumes published from 2010 onwards of the journal *Political Geography*, recognized as the journal with the highest quantity of works on this topic (LEIB; QUINTON, 2011), were analyzed. Thirty-one articles were found using the same Boolean terms in English. The review allowed the categorization of themes in the articles, identifying advances, advancements and gaps in the Brazilian production, especially in comparison with international literature. Those directly cited were selected as the best representatives of the presented arguments. Finally, although narrative review formed the basis of this article, when necessary, other works were cited to provide an even broader bibliographic foundation.

## **Electoral Geography – A Field of Geographic Science**

First, it is necessary possible to define electoral geography as the field that explores the interaction between electoral processes and space/place, allowing us to understand how the organization of space can influence voters’ decisions and how candidates manipulate space to influence election outcomes (BARNETT; MURRAY, 2004). However, we need to position it within political geography and its respective historical developments.

The work of André Siegfried (2010 [1913]), *Tableau politique de la France de l’Ouest*, is generally considered the pioneer of electoral geography. By mapping the voting patterns in France at the end of the 19th century, he noticed a clear spatial pattern between the north and south of the country. The famous phrase from the author, repeated by all electoral geography professors, “granite votes to the right, and limestone to the left,” often led to the author being framed as “deterministic.” For the author, however, granite soil conditioned the formation of large properties, while limestone fostered small property ownership and increased urbanization. According to Siegfried, societies based on these different types of land structure would vote in

---

3 If you are interested in checking these articles, please refer to Victorino and Souza (2016), Rodrigues, Terron, and Sonnleitner (2017), and Cervi (2017).

opposite ways. As an almost unique work at that time, electoral geography did not become a prolific field in political geography.

There was only significant growth from around 1950, although it was not yet a highly valued theme and lacked strong connections between political science and political geography (MUIR, 1975). No longer relating to physical-environmental attributes, the focus remained on cartographic methodology, i.e., producing maps of election results and comparing them based on various socio-economic information, as seen in Prescott (1972). This tradition was widely criticized, especially for its supposed excessive empiricism. Woolstencroft (1980), for example, argued that the cartographic method was static, imprecise, and had low explanatory potential.

However, it is with the theoretical-quantitative revolution that the field reaches its peak prestige within political geography. As Pattie and Johnson (2009) state: “As a consequence, quantitative methods dominate the analysis in electoral geography” (PATTI; JOHNSON, 2009, p. 418). Spatial analysis is predominant in the history of the field in the 20th century, and aspects such as distance, shape, direction, and position became the essence of geography, promoting theoretical discussions like the neighborhood effect, which I will address later. Therefore, it is within the theoretical-quantitative paradigm that electoral geography gained more strength and continues to be the basis for internationally published research, this perhaps being one of the reasons for its marginalization in Brazilian geography.

In the 1960s and 1970s, the significant impact of critical social theories on the discipline’s agenda, whose influence still predominates in Latin America, had little influence on electoral analysis (WARF; LEIB, 2011). In general, it was accused of being positivist, reinforcing the status quo, excessively relying on statistical data, and being highly empiricist without developing socially appealing theories (JOHNSTON, 2002).

Flint and Taylor’s paper (1980) can be considered the most influential from a critical perspective in electoral geography, especially for bringing Immanuel Wallerstein’s world-system economics into the analysis of voting. As a clear product of Marxist structuralism and a hierarchical scale perspective (AZEVEDO, 2020), the authors argue that the vote needs to be viewed within a model of liberal democracy and, for this reason, they positioned electoral geography as a geography of support, a branch that would serve to maintain the status quo without questioning the supposed transformative role of elections in a capitalist world-system. As a result, Flint and Taylor contend that geographers should consider elections within the framework of the capitalist world-system, revealing that the supposed benefits of liberal democracy would never be fully transferred to the periphery. Some works in electoral geography are the result of this influence, such as Duncan’s (1991) work on elections in Fiji, and Flint’s (2001) text explaining the rise of the Nazi party in Germany.

Lastly, the post-structuralist renewal brought few but valuable contributions from feminist and identity-related perspectives. It is interesting to note the direction that electoral geography took with discussions related to power, difference, and contingency: the theme expanded, but from the already widely known (and criticized) perspective of spatial analysis. The rejection of quantitative methodologies is a hallmark of the post-structuralist, but not in electoral geography

(RASMUSSEN, 2006). Thus, methods considered positivist are used to analyze multiple sources of power and identity issues, typical of post-structuralist thinking.

Today, the potential of electoral geography has increased considerably due to three main factors: (a) the growth of electoral databases from different countries, especially in Brazil with the quality and dissemination of data from the Superior Electoral Court and the Transparency Portal; (b) advances in georeferencing technologies, with free and more user-friendly software; and (c) new quantitative methodology techniques that allow for more accurate analyses of the relationship between space and voting, beyond the cartographic method (CARVALHO; DOS SANTOS, 2015). This technical advance has been accompanied by significant theoretical depth, especially with theoretical influences from political science, which has distanced electoral geography from simplistic empiricism. The convergence of political (and electoral) geography with a neoinstitutionalist theoretical basis (BRENNETOT, 2021), along with its abnormal isolation within geographical science from critical themes, makes this field currently fertile for electoral studies. Its contemporary advancements will be outlined in the following sections.

## The Geography of Political Representation

Studies dealing with the geography of political representation analyze how the vote cast in the ballot box translates into a representative seat, taking into account that electoral systems vary greatly in representative democracies. While the discussion of electoral systems, their origins, differences, virtues, and vices has been omitted from this article (see NICOLAU, 2004), it is important to affirm the idea that these systems are (or should be) considered geographically. For this reason, some authors believe that this is the most promising field within electoral geography (FOREST, 2018).

Defining electoral rules presupposes considering the diversities (and inequalities) within the national territory. Moreover, it is always important to reaffirm that these rules can be changed at any time, which obliges us to constantly evaluate their qualities and problems. In recent years, there have been attempts to change the Brazilian electoral system (NICOLAU, 2017), such as the most recent proposal in the Senate for the introduction of a mixed-member proportional voting system<sup>4</sup>.

In general, research on the geography of political representation is more fruitful in majoritarian electoral systems – not surprisingly, it is the most discussed topic within American electoral geography, especially with the well-known practice of gerrymandering<sup>5</sup>. However, this discussion is beyond the scope of this article, especially because there is a significant body of literature on this topic, and it does not have a direct impact on the Brazilian proportional electoral system (see CERVAS; GROFMAN, 2020).

---

4 In 2017, the mixed proportional district vote was approved in the Senate Plenary for proportional elections. The proposal is currently stalled in the Federal Chamber of Deputies. Source: <https://www.camara.leg.br/propostas-legislativas/2163674>.

5 In summary, “gerrymandering” is the process of drawing electoral districts in each state based on demographic changes that occur, typically, every 10 years in the United States.



This does not mean, however, that there is no geography of political representation in Brazil that needs to be uncovered and analyzed. In a formal sense, each Brazilian state has the right to elect a specific number of representatives based on its respective population, with the Constitution setting a minimum of eight congressmen for the less populous states (Acre, Amapá, Distrito Federal, Mato Grosso do Sul, Mato Grosso, Piauí, Rio Grande do Norte, Rondônia, Roraima, Sergipe, and Tocantins) and a maximum of 70 for the most populous (São Paulo). Therefore, even though we do not have a district-based voting system like the United States, the deputies still have a territorial base.

In Brazil, there is what the literature calls “overrepresentation and underrepresentation” or malapportionment (SHIN, 2015), meaning a discrepancy between the number of voters and the possible number of representatives. Castro’s work (2007) in geography reveals the overrepresentation of states, especially Roraima, and the underrepresentation of the state of São Paulo. In other words, there are more representatives per capita in the least populous state in the North than in the state with over 40 million people.

While some argue that this characteristic of our electoral system gives more voice to the periphery (CASTRO, 2007), others claim that the backwaters of Brazilian politics have more influence in Congress, fostering more corrupt practices in our system (CARVALHO, 2009). The debate over overrepresentation and underrepresentation arises in every electoral process, with profound theoretical and philosophical implications and implications for policymaking, opening up significant research possibilities on different scales. As Arrington and Ingalls (1998) point out, this branch of research is related to the legitimacy of representative democracy, a discussion that is always important.

In the literature review conducted, only the works of Carvalho (2009) and Rocha (2021) fit into this theme, demonstrating the opportunities in the field. The research by the latter corroborates the findings made by the former 12 years earlier, as it also agrees with the underrepresentation of metropolitan regions in state legislatures, with Belo Horizonte (RMBH) as a case study. For Rocha, this could be a reason why there are few metropolitan policies and projects.

Another important research field – and the one with the most works found in the review – in the geography of political representation is the classic discussion on electoral connection, developed in 1974 by Mayhew to analyze parliamentary behavior in the United States (MAYHEW, 1974). The theory states that the behavior of lawmakers is directly related to the geographical pattern of voting and the characteristics of each lawmaker’s trajectory. Although it was designed for majoritarian systems, Ames’ work (2001) shows that this phenomenon can also be observed in our electoral system, with the emergence of informal district-like behavior. Due to our open-list proportional system with intense party fragmentation, there is an incentive for intra-party competition. Furthermore, since our electoral districts encompass entire states with large territorial and population areas, political campaigns become very costly, forcing candidates to concentrate their efforts in specific locations.

Ames (2001) presented this idea through a typology with four spatial patterns of voting that became the most debated and used in research in electoral geography in Brazil: concentrated-



dominant, concentrated-shared, fragmented-dominant, and fragmented-shared. Each type is related to certain socio-spatial characteristics – urban areas, metropolitan areas, rural areas, high-density areas, etc. This work was later corroborated and expanded by Carvalho (2003), whose research showed that deputies, once elected, tend to behave according to their electoral spatial pattern. In summary, deputies with a dominant vote pattern would tend, for example, to have parochialist behavior, with actions in congress focused on their informal district (pork barrel politics), while those with a shared vote pattern would have a more thematic-corporate profile.

Both Ames' (2001) and Carvalho's (2003) works are important because they open up an inexhaustible range of research possibilities in electoral geography, emphasizing the importance of geographical space in understanding how candidates become representatives and subsequently shape their parliamentary behavior. Rocha (2021), for example, argues that, contrary to what the authors suggested for candidates from metropolitan regions, there would be an internal differentiation between politicians from the capital (with shared voting, corroborating the authors' idea) and those from peripheral metropolitan municipalities (with concentrated voting, partially refuting it).

The geography of political representation allows us to understand our electoral system, its strengths and weaknesses, and even propose changes. In the review conducted, this is done only once by Amorim Neto, Cortez, and Pessoa (2011). After pointing out the difficulties produced by our electoral system, the authors propose maintaining the open-list proportional representation system but reducing the average magnitude of electoral districts and creating a proportional rule for the distribution of seats among allied parties.

The selected works demonstrate that political representation has an inherently spatial character, whether in the formulation of electoral systems themselves or in the actions of candidates and elected officials. The transformation of a vote into a representative seat has significant geographical intricacies that need to be revealed and analyzed.

## **The Geography of Voting**

One of the great interests of the social sciences is to understand what motivates someone to leave their home when their vote is diluted among millions, having little direct effect on the outcome, and what makes someone choose one candidate/party over another. The debate about the role of geographical space in this phenomenon took on new dimensions in the controversial publication by King (1996) in *Political Geography*, which generated different responses from geographers (see AGNEW, 1996). The author argued that when social characteristics (class, race, gender, etc.) are removed, geography becomes merely a stage without explanatory power. Responses to the controversy argued, on the contrary, that geographical space does influence electoral behavior. In other words, for the first group, places vote differently because of the type of people who live there (compositional effect), while for the second group, the vote is explained by the type of place where people are located (contextual effect). Space as a compositional effect and space as a contextual effect were generally presented as opposing views.

The narrative review conducted aimed to eliminate the dichotomy in this discussion. The research demonstrated that, while in Brazilian literature, the focus is on the compositional effect

of space, foreign literature has made significant progress in discussing electoral geography as a context. The lack of research with geographical space as a determinant of electoral processes is argued to be due to the shortage of Brazilian geographers in this field, as the compositional effect is analyzed in the country by political scientists, economists, and administrators (Table 1).

**Table 1 – Academic Production in Electoral Geography**

	<b>Compositional Effect</b>	<b>Contextual Effect</b>	<b>Geography of Political Representation</b>	<b>Geography Journal</b>
<b>SciELO e Redalyc (Portuguese, n=23)</b>	Avelar e Walter (2008); Soares e Terron (2008); Terron e Soares (2010); Zolnerkevic e Raffo (2013); Carvalho e Santos (2015); Matos <i>et al.</i> (2015); Sanches (2015); Amaral e Ribeiro (2015); Maciel e Ventura (2017); Faganello e Fernandes (2018); Fernandes e Fernandes (2019); Junckes <i>et al.</i> (2021); Madeira, Silva e Malheiros (2021); Silva, Santos e Silva (2022).	Kerbauy (2011); Meneguello e Bizzarro Neto (2012); Marzagão (2013); Silva e Silotto (2018); Silotto (2019); Zolnerkevic (2019); Simoni Júnior (2021);	Carvalho (2009); Amorim Neto, Cortez e Pessoa (2011); Borges, Paula e Silva (2016); Rocha (2021).	<i>Cuadernos de Geografía</i> (1) <i>Metrópolis</i> (3) <i>Geousp</i> (1)
<b>English production (n=31)</b>	Antonsich e Jones (2010); Webster e Quinton (2010); Sharp <i>et al.</i> (2014); Scala, Johnson e Rogers (2015); Furlong (2019).	Gimpel <i>et al.</i> (2008); Robinson e Noriega (2010); Gimpel, Lee e Thorpe (2011); Arzheimer e Evans (2012); Górecki e Marsh (2014); Gimpel e Hui (2015); Johnston <i>et al.</i> (2016); Voda <i>et al.</i> (2017); Vallbé e Ferran (2017); Evans <i>et al.</i> (2017); Lappie e Marschall (2018); Noord, Joster e Wall (2018); Rohla <i>et al.</i> (2018); Carlson e Gimpel (2019); Audemard e Gouard (2020); Put <i>et al.</i> (2020); Munis (2021); Iglesias-Pascual, Paloma e Benitez (2021).	Forest (2013); Collyer (2014); Magar <i>et al.</i> (2017); Kang (2018); Çarkoglu e Aksen (2019); Cervas e Grofman (2020); Worthen (2021).	<i>Political Geography</i>

Organization: by the author.

Table 1 reveals that, from the literature review conducted on SciELO and Redalyc, only five articles (14%) were published in explicitly geographical journals. Based on the information provided in the articles themselves and verified in the Lattes Platform, only two authors (4%) were geographers. Therefore, the marginalization of electoral geography among Brazilian geographers is evident.

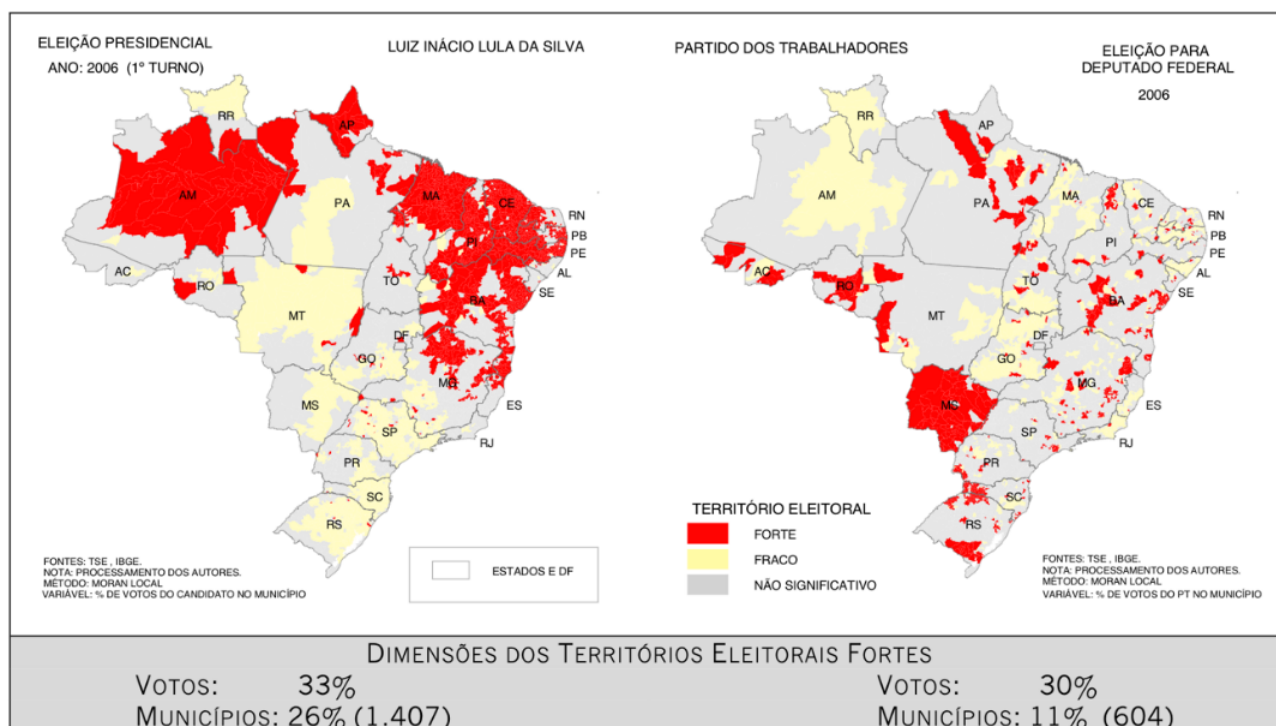
In addition to a more substantial production among other professionals, the focus is highly concentrated on its compositional effect, which we here refer to as weak electoral geography, while we qualify the contextual aspect as strong. The adjectives “weak” and “strong” are not hierarchical but position geographical space as a correlation or causality effect, respectively. In the first case, the cartography of voting at its multiple scales and geostatistical techniques reveal important dynamics of electoral cycles, becoming fundamental for raising questions and understanding revealed patterns. On the other hand, “strong” electoral geography seeks to understand geographical space as an explanatory element of the phenomenon, in a possible causal relationship. In this sense, the difference between compositional and contextual effects does not limit the geographer’s potential in this field; on the contrary, it allows for the construction of the geographical perspective in multiple ways, including through the necessary bridge between different social sciences. The spatial explanatory “strength” will be analyzed depending on the research question and interest.

## **Geographical Space as Composition and the Political Use of Electoral Maps**

When we observe the maps highlighted in this section, certain spatial patterns catch the observer’s eye. Geographers are trained to perceive the spatial representation of a phenomenon as a way to raise questions and infer answers through possible correlations based on cleavages and prior socio-spatial knowledge (SHIN, 2015). The importance of georeferencing techniques and statistical methods for detecting spatial patterns, such as the widely used Moran’s Index (LUZARDO; CASTAÑEDA FILHO; RUBIM, 2017), is emphasized. Consequently, we can view a map as an image, a geographical frame (GOMES, 2020), that is, a visual artifact that contributes to the construction of geographical reasoning and, consequently, serves as an instrument for both perception and understanding of the world.

It is mapping and spatial statistical correlation that have allowed us to reflect on the disconnect between Lula/Dilma voters and PT (TERRON; SOARES, 2010; MARZAGAO, 2013) – research confirming and analyzing the phenomenon of “lulism” in Brazilian elections. Figure 1 reveals that the electoral territories of Lula do not coincide with those of the party, a fact also confirmed in the 2014 elections of Dilma Rousseff, leading Matos et al. (2015) to assert that this was, in reality, a third election for Lula.

**Figure 1** – Divorce between Lula’s voters and the Workers’ Party.

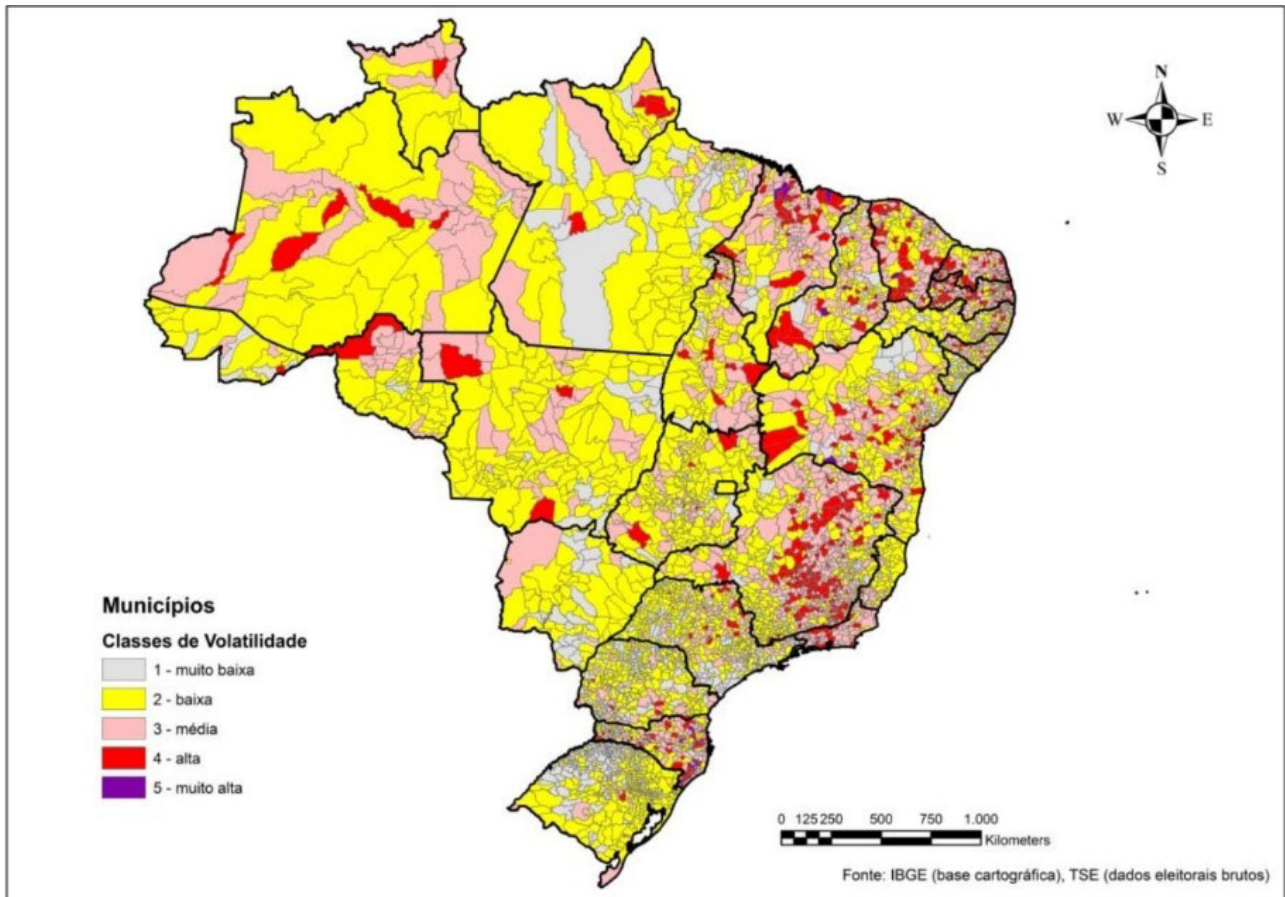


Source: Terron e Soares, 2010.

The two political scientists, therefore, used a spatial representation (resulting from georeferencing and statistical techniques) and an important geographical concept (territory) to reveal a fact that was little known by the Brazilian population. This work denied, therefore, a spatial pattern that had been consolidated within the PT since the redemocratization, revealing that regions now commonly considered its stronghold – such as the Northeast – experienced a well-defined spatiotemporal change. Moreover, various maps and statistical regression confirm that this change was largely linked to the municipalities whose population received the most welfare subsidies from the Bolsa Família program (TERRON; SOARES, 2010). Avelar and Walter (2008) confirm that, until 2004, PT votes were concentrated in municipalities with higher HDI, while the former PFL (now Democrats) had more support in poorer municipalities, and the PMDB in medium socioeconomic levels. The PT had a high correlation with large cities, while right-wing and centrist parties were more evenly distributed based on the size of municipalities.

The mapping of votes also allows us to identify which municipalities have higher or lower electoral volatility, that is, the rate of votes from voters who changed their electoral preference from one election to another. In one of the few works published in a geography journal, Zolnerkevic and Raffo (2013) use the conceptual discussion developed by political scientists about party blocks grouped by similar parameters (such as ideology) to construct an interesting map of Brazil (Figure 2)

**Figure 2 – Electoral Volatility Map.**



Source: Zolnerkevic e Raffo (2013).

Based on theoretical-conceptual premises from other disciplines, the authors also asserted that there would be a strong correlation between higher electoral volatility and municipalities with a high percentage of rural population.

These selected works serve as interesting examples of how electoral geography as a compositional effect can aid in understanding political dynamics in Brazil. The narrative review conducted indicates a predominance of the national scale in electoral analyses (83%). Production at the state level is scarce (with exceptions such as CARVALHO; SANTOS, 2015), and especially at the municipal level—a gap that urgently needs to be filled. At this scale, only one study stands out (SILVA; SANTOS; SILVA, 2022).

Finally, it is worth noting another research field that is open in Brazil but has interesting foreign productions: the political uses of electoral maps, including in the construction of imaginaries and the (re)production of geographical prejudices. A report by Folha de São Paulo highlights how northeasterners were targeted, through map images, with prejudice after the first round of the 2014 elections, including posts by elected politicians<sup>6</sup>.

6 <https://hashtag.blogfolha.uol.com.br/2018/10/07/apos-primeiro-turno-nordestinos-sao-alvos-de-preconceito-mais-uma-vez/>. (September 10<sup>th</sup>, 2022).

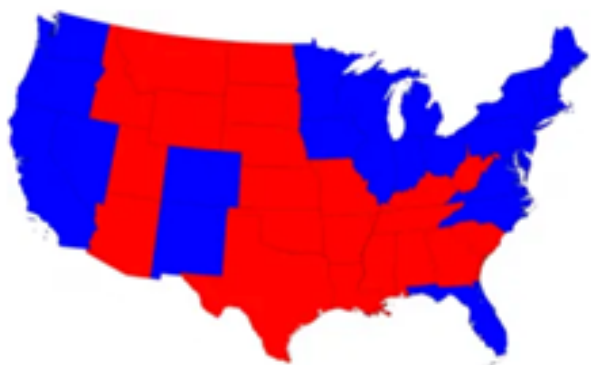


The theoretical-conceptual baggage of geography can help understand how geographical imaginaries are historical constructions that have a clear impact on social practices, even in public policies (CASTRO, 1997). Understanding the impact of these cartographic reproductions on socio-political relations, revealing historical and scalar incongruities of maps, and even questioning the type of technique used can be important topics for geographers. In Brazil, the only article found that questions the choropleth technique for electoral geography was produced by political scientists and deserves our attention (JUNCKES et al., 2021).

The authors point out how areas of reduced extension but with high population or electoral density almost disappear from the map. As in the example they give (JUNCKES et al., 2021), the mapping of votes on a national scale highlights, in the eyes of the less informed, territorially large municipalities (such as Altamira, in the state of Pará), but small demographically, while others, much smaller in size (like São Paulo), and very populous, become insignificant in visualizing the electoral phenomenon.

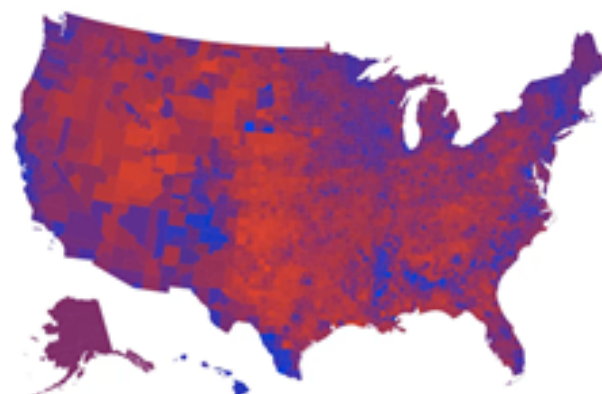
In the United States, the article by Rutchick, Smyth, and Konrath (2009) gained prominence, criticizing the constant use of electoral maps with blue (Democrats) and red (Republicans) colors and their effect on groups' political perceptions of American states, "exacerbating perceptions of polarization" (RUTCHICK; SMYTH; KONRATH, 2009, p. 270). In the United States, it is common to say "Texas is a red [Republican] state" or "California is a blue [Democrat] state," something reinforced in every election with choropleth mapping at the state level (Figure 3). The authors' proposal was to create a different map, in shades of purple, transforming citizens' assimilation of the country's electoral situation. This proposal gained enormous resonance in the United States, with similar proposals even on non-academic websites (Figure 4).

**Figure 3** – Example of a choropleth map at the state level of the elections in the USA.



Source: <https://medium.com/matter/the-trouble-with-the-purple-election-map-31e6cb9f1827>

**Figure 4** – Purple-scale map.



Source: <https://medium.com/matter/the-trouble-with-the-purple-election-map-31e6cb9f1827>



## Space as a contextual effect and its strategic use by candidates and parties

Table 1 demonstrates the scarcity of research in Brazil on electoral geography as a contextual effect, meaning geographic space as an explanatory factor for voting. However, in foreign literature, various works have sought to demonstrate how space is a key element in understanding elections not as a mere stage but as a determinant. In addition to the seminal work mentioned earlier by André Siegfried, it is necessary to reference two other contributors responsible for shaping the field, with theoretical constructs still used today, whether to question them or to support their findings.

Valdimer Orlando Key Jr. (1949) can be regarded as the pioneer of the main geographic contributions to electoral analysis. His research in the Southern United States demonstrated that the votes received by candidates depended on where they lived, showing greater support in their places of origin, which Key referred to as the “friends and neighbors” effect. Key argued that localism, i.e., the spatial identification between voter and candidate, was an important factor in voting, even overriding ideological and partisan differences. Even in contemporary contexts of high polarization and nationalization of elections, recent research reinforces the importance of local roots in voter choice (MUNIS, 2021).

Since Key’s pioneering work in 1949, the role of localism in voting has been discussed to either confirm, diverge from, or complicate it. Subsequent focus has been on demonstrating that this influence is not solely the result of geographic identification. Other factors have been invoked to explain localism, such as support networks that candidates receive in certain locations and not others, local representatives (mayors, councilors, community association presidents, etc.) (AUDEMARD; GOUARD, 2020), the spatial selectivity of news for candidates (BOWLER et al., 1993), and the prevalence of campaign posters in neighborhoods and house windows and their impact on perception and voting (HUCKFELDT; SPRAGUE, 1987).

Furthermore, the theory of “friends and neighbors” has been evaluated in different spatial contexts. In Lewis-Back and Rice (1983), it was found that the effect occurs in states with smaller populations. Meanwhile, Put, Schoultz, and Isotalo (2020) point out that in Finland, spatial voting patterns of “friends and neighbors” tend to be more pronounced in candidates from rural areas than in urban areas. In the case of the United Kingdom, Collignon and Sajuria (2018) investigated the impacts of regionalism on voting, revealing a strong relationship between regions with a strong regional identity and “friends and neighbors” voting.

In Brazil, this effect is barely explored. In the 2014 presidential elections between Dilma and Aécio, Aécio’s defeat in his own home state was used in the second-round campaign with slogans that said, “those who know Aécio, don’t vote for Aécio” (ZOLNERKEVIC; FERNANDES, 2016). The authors demonstrated that this slogan did not make sense in deeper analyses since Aécio had achieved a higher percentage of votes than previous PSDB candidates in Minas and concentrated votes in the central area near the capital, Belo Horizonte. However, as the produced map showed, his defeat was concentrated in the poorer regions of the state. The authors’ analysis through statistical regression demonstrated that the “friends and neighbors” effect for the PSDB candidate was nullified in areas with higher receipt of social programs like Bolsa Família, redirecting votes to the PT.

An important derivation of this theory is one debated by Cox (1969). His work can already be classified as a “classic citation” (PATTIE, 1998). A cornerstone of electoral geography in the quantitative revolution, Cox (1969) builds on communication theory and information flow, conceiving voters as components within a network through which political information passes, and develops the concept of the “neighborhood effect.” They would simultaneously be nodes (receiving, sending, and processing information through conversations and interactions) and links (acting in institutions such as parties, media, etc.), forming the network. The likelihood of these communications succeeding depends on various factors (bias), including the distance between nodes’ residences, which influences the spatial diffusion of information (a concept closely tied to spatial analyses, especially influenced by the Swedish geographer Torsten Hagerstrand).

Localism is thus articulated under the concept of context, which is responsible for the spread of information about candidates, continuously altering what reaches the voter and influencing their opinions and votes. Gimpel et al. (2008) confirmed a direct relationship between the distance from a candidate’s residence and the number of votes they receive in the United States. In the case of Finland, authors pointed out that candidates’ residential distance directly influences the distribution of votes within the party (PUT; SCHOULTZ; ISOTALO, 2020).

Fascinating research has revealed that when people migrate, they tend to choose their new neighborhood considering political-ideological proximity if possible (GIMPEL; HUI, 2015). In Rohla et al. (2018), recent political polarization in the United States is analyzed through geographic polarization, meaning that neighborhoods have become more politically homogeneous over the years due to residents moving from areas where they felt like minorities.

One of the few works in Brazil that assesses this theory is by Baker, Ames, and Rennó (2006) and Zolnerkevic (2019). One of the findings of these authors is that respondents who live in politically heterogeneous neighborhoods tend to be more volatile in their electoral support over time than those in more politically homogeneous neighborhoods. Furthermore, the study shows that most respondents are aware of whether their political opinion aligns with the majority in their neighborhood context.

It is evident that electoral geography as context reveals that voting is not solely the result of an individual voter’s rational decision but is guided by specific socio-spatial conditions. In addition to residential location, distance, and the neighborhood effect, other research also points to the relationship between territorial and demographic size with abstentionism and intra- and inter-party disputes. In Azevedo and Meireles (2021), a strong correlation is found between territory size and citizens’ electoral participation in Costa Rica’s first local-level election in 2016. In Voda et al. (2017), the authors suggest that the size of the electorate and its spatial distribution directly influence voter turnout in the Czech Republic. In Vallbé and Ferran (2017), the conclusion is that there is a negative correlation between political participation and the increase in demographic size and population mobility. This discussion invigorates historical philosophical reflections on the relationship between democracy and size, tracing back to ancient Greece (e.g., Plato), through the Enlightenment (e.g., Rousseau and Montesquieu), and extending to contemporary authors like Robert Dahl and Edward Tufte (DAHL; TUFTE, 1973).

Another crucial point is understanding the spatial differentiations produced by public policies and their impact on voting, what Pattie and Johnston (2014) termed “valence politics.” The essence of this discussion lies in realizing that the average voter does not vote solely based on ideology or loyalty to a party but rather from a perception of immediate improvement in their life. The discussion of valence politics conceives voting as volatile and rarely fully loyal to a party/ideology. This means that the outcome of a public policy matters and can transform the geography of the vote; in other words, this economic vote has geographic implications since economic performances vary from place to place. The previously mentioned case of Bolsa Família in Brazil or Trump’s victory in 2016 in states previously considered Democratic, especially in the “rust belt” region, is illustrative<sup>7</sup>.

Finally, a fertile field for electoral analysis is focusing on the spatial strategies that candidates and parties employ to win elections<sup>8</sup>. In this perspective, parties and candidates are political actors seeking to maximize their votes, including by rationalizing space. Silotto (2019) explained how votes are delimited regionally among candidates to circumvent intra-party competition. According to the author, political parties function as gatekeepers who select candidates based, for example, on regional analysis. This regionalization of the vote relates to geographically delimited election campaign strategies. It is geographic space being rationalized and strategically used in the electoral phenomenon.

## Final Remarks

The aim of this article was to analyze the national and international production in electoral geography using two important databases, revealing the characteristics and gaps in Brazilian research. The narrative review revealed a virtual absence of geographers in this field, with increasing involvement of political scientists, economists, and administrators. While on one hand, we do not advocate for an academic monopoly of geographers on the subject, on the other hand, their absence should be a cause for concern. This means that there is ample room for geographers to expand both their academic scope and professional involvement, as there is a demand for consulting and various courses that seek to understand voting behavior in the country.

It was revealed that in the history of electoral geography, there has been a dilemma regarding the role played by space in shaping electoral behavior: whether it is merely a stage where social characteristics such as class converge and therefore cannot be considered an explanatory (compositional) factor, or whether geography can genuinely be a conditioning component (contextual). The narrative review allowed us to think of electoral geography beyond this impasse since, depending on the researcher’s interest, both are essential to understanding the phenomenon. This can be done by seeking correlations using geo-statistical and cartographic

---

7 It is worth mentioning Enos’ work (2019), “Space between us,” as a contemporary landmark in spatial studies of voting, as his extensive research assesses how the spatial organization of social groups - especially the attributes of size, proximity, and segregation - influences electoral participation and choices of candidates and parties.

8 Although not stemming from this narrative review, Braga’s article (2013) is an interesting example as it analyzes the electoral strategies of candidates from the Universal do Reino de Deus church.

techniques - what was termed as weak electoral geography - or by tracing explanations for possible causalities - strong electoral geography. The analysis demonstrated a gap in the Brazilian production, especially in the contextual effect of geographic space.

We must consider what needs to change to improve professional conditions and encourage the participation of geographers in the field, as a mere lack of interest seems to be an insufficient explanation. Undoubtedly, the students' aversion to quantitative methodologies could be one of the reasons, as correlations, regressions, and geo-statistics are key components in electoral studies. Additionally, a closer alignment with political science - a field where there is greater interest and contribution to the subject - is necessary to encourage theoretical and conceptual deepening that can stimulate research in the area. Future analyses will be conducted to better understand this gap.

This article aimed to demonstrate the richness of electoral geography. New topics are constantly emerging and require researchers who are attentive to these changes, such as the impact of social networks on campaigns, spatial voting patterns, and new discussions on representation and political parties. The potential is significant, just as the desire to reaffirm the importance of the role of geographers in understanding phenomena is relevant to citizens' daily lives.

## References

- AGNEW, J. Mapping politics: How context counts in electoral geography. **Political Geography**, v. 15, n. 2, p. 129-146, 1996.
- AMARAL, O. E.; RIBEIRO, P. F. Por que Dilma de novo? Uma análise exploratória do Estudo Eleitoral Brasileiro de 2014. **Revista de Sociologia e Política**, v. 23, n. 56, p. 107-123, 2015.
- AMES, Barry. **Os entraves da democracia no Brasil**. Rio de Janeiro: FGV, 2001.
- AMORIM NETO, O.; CORTEZ, B.; PESSOA, S.A. Redesenhando o mapa eleitoral do Brasil: uma proposta de reforma política instrumental. **Opinião Pública**, v. 17, n. 1, p. 45-75, 2011.
- AMERICAN PSYCHOLOGICAL ASSOCIATION (APA). **Publication manual of the American Psychological Association**. 7. ed. Washington: APA, 2020.
- ANTONSICH, M.; JONES, P. Mapping the Swiss referendum on the minaret ban. **Political Geography**, v. 29, p. 57-62, 2010.
- ARRINGTON, T.S.; INGALLS, G.L. The limited vote alternative to affirmative districting. **Political Geography**, n. 17, p. 701-28, 1998.
- ARZHEIMER, K.; EVANS, J. Geolocation and voting: candidate-voter distance effects on party choice in the 2010 UK general election in England. **Political Geography**, v. 31, p. 301-310, 2012.

- AUDEMARD, J.; GOUARD, D. Friends, neighbors, and sponsors in the 2016 French primary election. Revisiting a classical hypothesis from aggregated-level data. **Political Geography**, v. 83, p. 1-15, 2020.
- AVELAR, L.; WALTER, I. M. T. Lentas mudanças: o voto e a política tradicional. **Opinião Pública**, v. 14, n. 1, p. 96-122, 2008.
- AZEVEDO, D. A. Escala e escala política: como a Geografia pode apontar a fragilidade na teoria da democracia participativa. **Revista Espaço e Geografia (UnB)**, v. 23, p. 149-184, 2020.
- AZEVEDO, D. A.; MEIRELES, B. L. Territorial and Electorate Size Influence: Participation/Competitiveness in Costa Rica's 2016 Local Scale Elections. **Cuadernos de Geografía: Revista Colombiana de Geografía**, v. 30, n. 1, p. 25-44, 2021.
- AZEVEDO, D. A.; URIAS, G.; OLIVEIRA, L. L. A revisão de literatura como método de pesquisa na geografia: uma scoping review. **Boletim Paulista de Geografia**, n. 109, p. 65-88, 2023.
- BAETHGE, C.; GOLDBECK-WOOD, S.; MERTENS, S. SANRA—a scale for the quality assessment of narrative review articles. **Research Integrity and Peer Review**, v. 4, n. 5, p. 1-7, 2019.
- BAKER, A.; AMES, B.; RENNO, L. Social Context and Campaign Volatility in New Democracies: Networks and Neighborhoods in Brazil's 2002 Elections. **American Journal of Political Science**, v. 50, n. 2, p. 382-399, 2006.
- BARNETT, C.; MURRAY, L. **Electoral Geography in Electoral Studies**: Putting Voters in their Place. London: SAGE Publications, 2004.
- BRAGA, D. F. Geografia eleitoral e as estratégias territoriais da Igreja Universal do Reino de Deus. *In*: CASTRO, I. E.; RODRIGUES, J. N.; RIBEIRO, R. W. **Espaços da democracia**: para a agenda da geografia política contemporânea. Rio de Janeiro: Bertrand Brasil, 2013. p. 147-182.
- BRENNETOT, A. Por uma geografia política construtivista. *In*: AZEVEDO, D. A.; CASTRO, I. E.; RIBEIRO, R. W. **Os desafios e novos debates na Geografia Política Contemporânea**. Rio de Janeiro: Editora Terra Escrita, 2021. p. 197-205.
- BORGES, A.; PAULA, C.; SILVA, A. N. Eleições legislativas e geografia do voto em contexto de preponderância do Executivo. **Revista de Sociologia e Política**, v. 24, n. 58, p. 31-58, 2016.
- BOWLER, S.; DONOVAN, T.; SNIPP, J. Local sources of information and voter choice in state elections: Microlevel foundations of the friends and neighbors effect. **American Politics Quarterly**, v. 21, n. 4, p. 473-489, 1993.
- CARLSON, C.; GIMPEL, J. G. Political implications of residential mobility and stasis on the partisan balance of locales. **Political Geography**, v. 71, p. 103-114, 2019.



- CARVALHO, N. R. **E no início eram as bases**. São Paulo: Editora Ravan, 2003.
- CARVALHO, N. R. Geografia política das eleições congressuais: a dinâmica de representação das áreas urbanas e metropolitanas no Brasil. **Cadernos Metrôpoles**, v. 11, n. 22, p. 367-384, 2009.
- CARVALHO, D.; SANTOS, G. F. Ciclos políticos, socioeconomia e a geografia eleitoral do estado da Bahia nas eleições de 2006. **Revista de Sociologia e Política**, v. 23, n. 54, p. 109-135, 2015.
- CASTRO, I. E. Imaginário político e território. In: CASTRO, I. E.; GOMES, P.C.C; CORRÊA, R.L. (org.). **Explorações geográficas**. Rio de Janeiro: Bertrand Brasil, 1997. p. 155-196.
- CASTRO, I. E. Décentralisation, démocratie et représentation législative locale au Brésil. **L'Espace Politique**, v. 3, p. 60-73, 2007.
- CERVAS, J.; GROFMAN, B. Tools for identifying partisan gerrymandering with an application to congressional districting in Pennsylvania. **Political Geography**, v. 76, e102069, 2020.
- CERVI, E. U. Análisis espacial del desempeño electoral de PT y PSDB entre 1994 y 2014 en Brasil. **América Latina Hoy**, n. 75, p. 55-74, 2017.
- COLLIGNON, S.; SAJURIA, J. Local means local, does it? Regional identification and preferences for local candidates. **Electoral Studies**, v. 56, p. 170-178, 2018.
- COLLYER, M. Inside out? Directly elected 'special representation' of emigrants in national legislatures and the role of popular sovereignty. **Political Geography**, v. 41, p. 64-73, 2014.
- COX, K. The voting decision in a spatial context. **Progress in Geography**, v. 1, p. 83-117, 1969.
- ÇARKOGLU, A.; AKSEN, D. Partisan and apportionment bias in creating a predominant party system. **Political Geography**, v. 69, p. 43-53, 2019.
- DAHL, R.; TUFTE, E. R. **Size and democracy**. Califórnia: Stanford University Press, 1973.
- DUNCAN, C. J. Ethnicity, election and emergency – The 1987 Fiji general election in the context of contemporary political-geography. **Political Geography Quarterly**, v. 10, p. 221-239, 1991.
- ENOS, R. D. **The space between us: social geography and politics**. Cambridge University Press, 2019.
- EVANS, J.; ARZHEIMER, K.; CAMPBELL, R.; COWLEY, P. Candidate localness and voter choice in the 2015 General Election in England. **Political Geography**, v. 59, p. 61-71, 2017.
- FAGANELLO, M. A.; FERNANDES, J. L. M. Migração partidária nos municípios brasileiros (2000-2016). **Revista de Sociologia e Política**, v. 26, n. 66, p. 101-124, 2018.



- FERNANDES, I. F. A. L.; FERNANDES, G. A. A. L. Economic voting in Brazilian presidential elections: evidence with panel data from municipalities in Sao Paulo. **Organizações e Sociedade**, v. 26, n. 88, p. 114-137, 2019.
- FLINT, C. A TimeSpace for electoral geography: Economic restructuring, political agency and the rise of the Nazi party. **Political Geography**, v. 20, p. 301–329, 2001.
- FLINT, C.; TAYLOR, P. **Political geography**: world-economy, nation-state and locality. Routledge: London, 1980.
- FOREST, B. Redistricting and the elusive ideals of representation. **Political Geography**, v. 32, p. 15-17, 2013.
- FOREST, B. Electoral geography: From mapping votes to representing power. **Geography Compass**, v. 12, n. 1, 2018.
- FURLONG, J. The changing electoral geography of England and Wales: varieties of “left-behindedness”. **Political Geography**, v. 75, p. 150-162, 2019.
- GIMPEL, J.; KARNES, K.; MCTAGUE, J.; PEARSON-MERKOWITZ, S. Distance-decay in the political geography of friends-and-neighbors voting. **Political Geography**, v. 27, n. 2, p. 231-252, 2008.
- GIMPEL, J.; HUI, I. Seeking politically compatible neighbors? The role of neighborhood partisan composition in residential sorting. **Political Geography**, v. 48, p. 130-142, 2015.
- GIMPEL, J.; LEE, F. E.; THORPE, R. U. The wellsprings of candidate emergence: geographic origins of statewide candidacies in the United States. **Political Geography**, v. 30, p. 25-37, 2011.
- GOMES, P. C. C. **Quadros geográficos**. Rio de Janeiro: Bertrand Brasil, 2020.
- GÓRECKI, M. A.; MARSH, M. A decline of ‘friends and neighbours voting’ in Ireland? Local candidate effects in the 2011 Irish ‘earthquake election’. **Political Geography**, v. 41, p. 11-20, 2014.
- HUCKFELDT, R.; SPRAGUE, J. Networks in context: The social flow of political information. **American Political Science Review**, v. 81, n. 4, p. 1197–1216, 1987.
- IGLESIAS-PASCUAL, R.; PALOMA, V.; BENÍTEZ, I. The role of contextual factors in the electoral resurgence of extreme right-wing forces in Spain: the case of Andalusia. **Political Geography**, v. 86, p. 1-9, 2021.
- JOHNSTON, R. Manipulating maps and winning elections: Measuring the impact of malapportionment and gerrymandering. **Political Geography**, v. 21, n. 1, p. 1–31, 2002.
- JOHNSTON, R.; WICKHAM-JONES, M.; PATTIE, C.; CUTTS, D.; PEMBERTON, H. Friends and neighbours voting revisited: the geography of support for candidates to lead the UK’s Labour party. **Political Geography**, v. 55, p. 1-9, 2016.

- JUNCKES, I. J., SILVA JÚNIOR, W., SILVA, J. M., & SILVA, E. A. Representação espacial de dados eleitorais no Brasil. **Revista de Sociologia e Política**, v. 29, p. 2–22, 2021.
- KANG, W. C. Presidential pork barrel politics with polarized voters. **Political Geography**, v. 67, p. 12-22, 2018.
- KEY JÚNIOR, V. O. **Southern politics in state and nation**. New York: Alfred A. Knopf, 1949.
- KERBAUY, M. T. M. Os programas de transferência de renda e o voto regional nas eleições presidenciais de 2010. **Opinião Pública**, v. 17, n. 2, p. 477-492, 2011.
- KING, G. Why context should not count. **Political Geography**, v. 15, n. 2, p. 159-164, 1996.
- LAPPIE, J.; MARSCHALL, M. Place and participation in local elections. **Political Geography**, v. 64, p. 33-42, 2018.
- LEIB, J.; QUINTON, N. On the Shores of the “Moribund Backwater”? Trends in Electoral Geography Research Since 1990. In: WARF, B.; LEIB, J. **Revitalizing electoral geography**. Reino Unido: Ashgate, British Library Cataloguing in Publication Data, 2011. p. 9-30.
- LEWIS-BACK, M. S.; RICE, T. W. Localism in presidential elections: the home state advantage. **American Journal of Political Science**, v. 27, n. 3, 1983.
- LUZARDO, A. J. R.; CASTAÑEDA FILHO, R. M.; RUBIM, I. B. Análise espacial exploratório com o emprego do Índice de Moran. **GEOgraphia**, v. 40, n. 19, p. 161-179, 2017.
- MACIEL, N.; VENTURA, T. A Partido dos Trabalhadores na Câmara dos Deputados: a evolução das bases socioeconômicas e territoriais (1994-2014). **Opinião Pública**, v. 23, n. 1, p. 96-125, 2017.
- MADEIRA, P.M. F.; SILVA, K. S. N.; MALHEIROS, J. S. M. A geografia da direita nacionalista em Portugal: contornos de um processo emergente. **Caderno Metrôpoles**, v. 23, n. 51, p. 469-498, 2021.
- MAGAR, E.; TRELLES, A.; ALTMAN, M.; MCDONALD, M. P. Components of partisan bias originating from single-member districts in multi-party systems: an application to Mexico. **Political Geography**, v. 57, p. 1-12, 2017.
- MARZAGÃO, T. A dimensão geográfica das eleições brasileiras. **Opinião Pública**, v. 19, n. 2, p. 270-290, 2013.
- MATOS, A.; MARCELO, M.; ALVES, E.; FERNANDO, S.; DIAS, M. Eleição de Dilma ou segunda reeleição de Lula? Uma análise espacial do pleito de 2010. **Opinião Pública**, p. 535-573, 2015.
- MAYHEW, D. **Congress: the electoral connection**. London: Yale University Press, 1974.
- MENEGUELLO, R.; BIZARRO NETO, F. Contexto e competição na política paulista. **Revista Dados**, v. 55, n. 1, p. 119-171, 2012.

- MUIR, R. **Modern political geography**. London: Macmillan, 1975.
- MUNIS, K. B. Place, candidate roots, and voter preferences in an age of partisan polarization: Observational and experimental evidence. **Political Geography**, v. 85, p. 1-12, 2021.
- NICOLAU, J. **Sistemas eleitorais**. São Paulo: FGV Editora, 2004.
- NICOLAU, J. **Representantes de quem?** São Paulo: FGV Editora, 2017.
- NOORD, J.; KOSTER, W.; WAAL, J. Order please! How cultural framing shapes the impact of neighborhood disorder on law-and-order voting. **Political Geography**, v. 64, p. 73-82, 2018.
- PATTIE, C. Classics um human geography revisited. **Progress in Human Geography**, v. 22, n. 3, p. 407-413, 1998.
- PATTIE, C.; JOHNSTON, R.. Still talking, but is anybody listening? The changing face of constituency campaigning in Britain, 1997–2005. **Party Politics**, v. 15, p. 411–434, 2009.
- PATTISON, W. D. The four traditions of Geography. *In*: MOSELEY, W. G.; LANEGRAN, A.; PANDITt, K. **The Introductory Reader in Human Geography**. Hoboken: Wiley Blackwell Publishing, 2007. p. 16-21.
- PRESCOTT, J. R. V. **Political geography**. London: Methuen. 1972.
- PUT, G.; SCHOULTZ, A.; ISOTALO, V. Fighting over friends and neighbors: the effect of inter-candidate geographic distance on intra-party competition. **Political Geography**, v. 81, p. 1-12, 2020.
- RASMUSSEN, C.E. We're no metrosexuals: Identity, place and sexuality in the struggle over gay marriage. **Social & Cultural Geography**, v. 7, p. 807–825, 2006.
- ROBINSON, T.; NORIEGA, S. Voter migration as a source of electoral change in the Rocky Mountain West. **Political Geography**, v. 29, p. 28-39, 2010.
- ROCHA, C. “Conexão Eleitoral”, geografia do voto e produção legislativa: um estudo de caso. **Cadernos Metr6poles**, v. 23, n. 51, p. 581-604, 2021.
- RODRIGUES, R. S.; TERRON, S.; SONNLEITNER, W. Política, espacialidad y territorialidad. Hacia un análisis espacial de los procesos socio-políticos em América Latina. **América Latina Hoy**, v. 75, p. 11-20, 2017.
- ROHLA, R.; JOHNSTON, R.; JONES, K.; MANLEY, D. Spatial scale and the geographical polarization of the American electorate. **Political Geography**, v. 65, p. 117-122, 2018.
- RUTCHICK, A. M.; SMYTH, J. M.; KONRATH, S. Seeing red (and blue): effects of electoral college depictions on political group perception. **Analyses of Social Issues and Public Policy**, v. 9, n. 1, p. 269-282, 2009.
- SANCHES, D. C. Os custos eleitorais do Bolsa Família: reavaliando seu impacto sobre a eleição presidencial de 2006. **Opinião Pública**, v. 21, n. 3, p. 514-534, 2015.

- SCALA, D. J.; JOHNSON, K. M.; ROGERS, L. T. Red rural, blue rural? Presidential voting patterns in a changing rural America. **Political Geography**, v. 48, p. 108-118, 2015.
- SHARP, J.; CUMBERS, A.; PAINTER, J.; WOOD, N. Deciding whose future? Challenges and opportunities of the Scottish Independence referendum 2014 for Scotland and beyond. **Political Geography**, v. 41, p. 32-42, 2014.
- SHIN, M. Electoral geography in the twenty-first century. *In*: AGNEW, J.; MAMADOUH, V.; SECOR, A.; SHARP, J. (ed.). **The Wiley Blackwell Companion to Political Geography**. Hoboken: John Wiley & Sons, 2015. p. 362-379.
- SIEGFRIED, A. **Tableau politique de la France de l'Ouest sous la Troisième République**. Bruxelles: Université de Bruxelles, 2010 [1913].
- SIMONI JÚNIOR, S. Efeitos diretos e indiretos do Programa Bolsa Família nas eleições presidenciais brasileiras. **Opinião Pública**, v. 27, n. 1, p. 230-260, 2021.
- SILOTTO, G. A relevância regional nas estratégias partidárias: evidências das listas de candidatos de São Paulo. **Revista de Sociologia e Política**, v. 27, n. 69, p. 1-17, 2019.
- SILVA, M.; SANTOS, P.; SILVA, L. Do Leme a Santa Cruz: A territorialização eleitoral de Jair Bolsonaro no município do Rio de Janeiro. **Opinião Pública**, v. 28, n. 1, p. 92-125, 2022.
- SILVA, G. P.; SILOTTO, G. Preparing the terrain: conditioning factors for the regionalization of the vote for federal deputy in Sao Paulo. **Brazilian Political Science Review**, v. 12, n. 2, p. 1-34, 2018.
- SOARES, G. A. D.; TERRON, S. L. Dois Lulas: a geografia eleitoral da reeleição (explorando conceitos, métodos e técnicas de análise geoespacial). **Opinião Pública**, v. 14, n. 2, p. 269-301, 2008.
- TERRON, L.; SOARES, A. D. G. As bases eleitorais de Lula e do PT: do distanciamento ao divórcio. **Opinião Pública**, v. 16, n. 2, p. 15-45, 2010.
- VALLBÉ, J.; FERRAN, M. J. The Road Not Taken. Effects of residential mobility on local electoral turnout. **Political Geography**, v. 60, p. 86-99, 2017.
- VICTORINO, A. P.; SOUZA, C. A. S. Determinantes do comportamento eleitoral nas eleições legislativas em Moçambique 1994-2014. **Revista Política, Globalidad y Ciudadania**, v. 2, n. 4, p. 19-42, 2016.
- VODA, P.; PETRA S.; ANDREA S.; STANISLAV, B. Local and More Local: Impact of Size and Organization Type of Settlements Units on Candidacy. **Political Geography**, v. 59, p. 24-35, 2017.
- WARF, B.; LEIB, J. **Revitalizing electoral geography**. Londres: Routledge, 2011.
- WEBSTER, G. R.; QUINTON, N. The electoral geographies of two segregationist ("Jim Crow") referenda in Alabama. **Political Geography**, v. 29, p. 370-380, 2010.

- WOOLSTENCROFT, R. P. Electoral Geography: Retrospect and Prospect. **International Political Science Review**, v. 1, n. 4, p. 540-560, 1980.
- WORTHEN, H. M. Rights to the rescue? The promotion of Indigenous women's political-electoral rights and the rise of the Mexican security state. **Political Geography**, v. 85, p. 1-11, 2021.
- ZOLNERKEVIC, A. Contexto social de vizinhança: percepções políticas na cidade de São Paulo. **Revista Brasileira de Ciência Política**, n. 29, p. 189-222, 2019.
- ZOLNERKEVIC, A.; FERNANDES, H. C. Efeito contextual de "amigos e vizinhos" nas eleições presidenciais brasileiras: o caso da votação do candidato Aécio Neves no estado de Minas Gerais. **Em Tese**, v. 13, p. 83, 2016.
- ZOLNERKEVIC, A.; RAFFO, J. G. Geografia eleitoral: representação espacial da volatilidade do voto. **Geosp**, v. 17, n. 1, p. 221-228, 2013.

#### **Article editor:**

**Ricardo Mendes Antas Jr.**

#### **Fundings**

**This paper was supported by CNPq 2021 "Demanda Universal" funding - protocol number 407406/2021-2.**

**Received on:** 22/11/2022  
**Approved on:** 31/05/2023