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Title of Session 6: Electoral Behavior/Elections and Research in Latin America

"THE GEOGRAPHY OF THE VOTE IN BRAZIL’S PRESIDENTIAL ELECTIONS"

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ABSTRACT:

The objective of this study is to analyze the Brazilian presidential elections in 2014 from the point of view of the geography of the vote. From the presidential elections of 2006, we have observed a very strong social and geographical division in Brazil. The richer and those with more years of schooling came to vote overwhelmingly in opposition, while the poorest and those that stayed less time in school voted, by far, to the incumbent. This division could be classified only as a vote of class, but in the North and Northeast of Brazil, the PT candidate had the preference of even the most wealthy and educated. In the Southeast, especially in São Paulo, the opposition candidate came out winner among the poorest and the less educated, showing the possibility of the regionalization of the vote. In addition to analyze and compare the geography of the vote of the last Brazilian presidential elections, we have built and analyzed a model to classify the Brazilian electorate into three groups: the Pro-PT, Anti PT, and the Volatile that can vote according to any one of the groups, depending on the dynamics of the election.
1 – Introduction

The presidential election of 2014 was the toughest the country ever had. Since 1989, when Luiz Inácio Lula da Silva (PT) faced Fernando Collor de Mello (PRN) in the runoff, in the first direct presidential election after 21 years of military dictatorship, 2014’s election was the one that showed the most divided nation.

Out of the last seven presidential elections after the end of military dictatorship in six of them the dispute was between two parties: the Workers Party (PT), of former President Lula and President Dilma Rousseff and the Brazilian Social Democratic Party (PSDB), of the former President Fernando Henrique Cardoso and the candidate who competed in the 2014 presidential runoff against Dilma, Senator Aécio Neves.

Besides this duality, this election was marked by important facts that had significant impacts during the election campaign: protests against the Soccer World Cup in Brazil, the death of Eduardo Campos, one of the opposition candidates, the entrance of Marina Silva in the middle of the electoral dispute, and a very heated debate, especially on social networks, between the supporters of each candidate.

After a very tough campaign, full of difficulties, and after 12 consecutive years of PT’s government, voters went to the polls divided between the desire for change in power and the defense of the current management. In this context, President Dilma Rousseff was re-elected with 51.6% of the votes in the second round – the tightest result since the return to democracy.

In the presidential elections of 2002, when President Lula was elected, the distribution of votes among the various regions of Brazil was very homogeneous. From his re-election in 2006, occurred after a series of accusations against PT’s government regarding the payment of parliamentary votes, what became known as "mensalão", a sharp social and geographical division in Brazil became more pronounced in every presidential election.
The objective of this study is to analyze the Brazilian presidential elections of 2014 from the point of view of the geography of the vote.

Besides analyzing and comparing the geography of the vote of the last Brazilian presidential elections, we developed a model to classify the Brazilian electorate into three groups: the Pro-PT, the Anti PT, and the Volatile who can vote according to any of the other groups depending on the dynamics of the election.

The model was built through points assigned to the questions applied in electoral polls, taking into account the evaluation of the government, rejection of candidates, political party sympathy and access to social programs of the federal government.

2 – Recent Presidential Elections

The indirect election of Tancredo Neves in 1985 marked the end of authoritarianism and the beginning of a new political cycle in Brazilian history. One of the first measures of the new government was to approve in Congress a constitutional amendment that restored the direct presidential elections and withdrew from the Constitution the provisions regarding political party loyalty.

The free creation of new political parties and the reorganization of all the acronyms that had their records rejected, canceled or revoked during the term of the authoritarian regime became authorized.

In 1985, the Electoral Code in force since 1965 has changed, allowing, for example, that all parties with provisional registration or training could participate in the elections for the Constituent National Assembly.

The Constitution adopted in 1988 also changed the legal status of the parties because of public entities have become private, granting full autonomy to each party guild determine its own internal rules of organization and operation. Due
to this there are currently 32 political parties registered in Brazil and 41 more legends that are signature-gathering phase in the states for registration at the Superior Electoral Court (TSE).

However, in the last three decades, there has been an intense discussion regarding the reformulation of the political and institutional structures in order to strengthen the political party system in Brazil (with the reduction thereof), to create more efficient relations between the Executive and Legislative powers and to establish a greater connection among voters and their representatives, the so-called political reform.

The Brazilian political system has three levels of government (municipal, state and federal), each with its respective executive and legislative power. The act of governing is centralized in the Executive, leaving the Legislative to enact laws and supervise the Executive. The 5,570 mayors, 27 governors and the president are elected for four-year terms, with the right to dispute only one consecutive reelection (the House approved the end of the re-election, but final approval still depends on the Senate). The 1,049 state congressional representatives and 513 federal congressional representatives are elected simultaneously with their peers in the Executive, also for four years in office. In the same ballot, 81 federal senators are also elected for eight-year terms. Mayors and city councils are elected in another vote, in the pair years subsequent to the state / federal elections. Voting is compulsory for all voters over 18 years and less than 70 years old.

The electoral system is majoritarian in elections for the Executive, with two voting rounds in the elections for governor, president and mayors of municipalities that have over 200,000 voters. If no candidate attains an absolute majority in the first round, there is a second round three weeks later between the top two. In the legislative election, the system is proportional: a minimum electoral quotient is estimated by dividing the number of valid votes by the number of seats. Political parties or coalitions that reach the quotient are entitled to a number of seats proportional to their vote. The distribution of seats
within the coalition of parties (they can unite to dispute elections) or political party candidates obeys the number of votes individually received by the candidates: if the coalition / party is entitled to five seats, the five congressional representatives or councilors most well voted out of those candidates are elected.

With this system, direct elections for president have been held since 1989. In that year, Fernando Collor de Mello was elected President of the Republic by the tiny PRN (Party of National Renovation), current PTC (Christian Labor Party), after fighting the runoff with Luis Inácio Lula da Silva. Collor took office in March 1990 and in October 1992 resigned in an attempt to avoid an impeachment trial reasoned in allegations of corruption in his government.

From this moment on, the Presidency of the Republic was pursued by Vice President Itamar Franco, who in 1995 transferred it to Fernando Henrique Cardoso, elected in the 1st round of the presidential elections in October 1994 under the PSDB (Brazilian Social Democratic Party) and re-elected in 1998 in the first round and under the same party, after the approval of the National Congress in 1997 of a constitutional amendment allowing the reelection of executive positions: President, Governors and Mayors.

The election of Luiz Inácio Lula da Silva in the 2002 presidential elections represented an important change in the Brazilian political scene, since it put in charge of the Federal Executive Power, one of the main leaders of the opposition formed in the Brazilian democratization process, as well as the Workers Party, an organization that had Lula da Silva as one of its founders and leading exponent throughout this period. Lula was elected with a very homogeneous distribution of votes among the various regions of Brazil, after winning the runoff against Jose Serra, of the PSDB.
However, from his re-election in 2006, occurred after a series of accusations of payment of parliamentary votes, against PT’s government, what became known as "mensalão", a sharp social and geographical division in Brazil became more pronounced in every presidential election. The richer and those with more years of schooling came to vote overwhelmingly in the opposition, while the poorest and those that stayed less time in school voted, by far, to the incumbent.

After winning the runoff from Geraldo Alckmin of PSDB in the elections of 2006, Lula starts his mandate in January 2007 and consolidates his popularity among Brazilians.

Thus, the presidential election background of 2010 was the great desire of continuity of the economic policies, social programs, and even Brazil's position in the international sphere. In this context, Dilma Rousseff, supported by Lula, was the first woman elected as president of Brazil, having never competed before for an election, after winning the runoff contest with 56% of the votes against her opponent, José Serra from the PSDB Party.

**CHART 1 – Results of Brazilian Presidential Elections from 1989 to 2010 – 1st and 2nd rounds – Valid Votes**

Source: Developed by IBOPE Inteligência/Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)
3 – Context of the presidential election in 2014

In order to understand the Brazilian presidential elections, it is important to understand the context in which it was inserted. Following is a brief summary of the events that occurred in 2013, the assessment of the federal government, the economy’s performance in recent years, the Soccer World Cup that took place in Brazil in 2014 and the voters’ opinion mood regarding the presidential elections of 2014.

The protests of 2013

In 2013, a series of protests, organized by students through social networks, took place in Brazil against the increase of urban bus fares. In June, the movement reached its peak after the clash between students and the military police in São Paulo. This fact was crucial for public opinion to support the protests that spread across the country. With the support of a larger audience, the agenda of the protests began to diversify and a plurality of issues began to be claimed. The reduction of bus fares was met in various locations, besides the approval of the free pass for low-income students, but the protests continued. At this time, the Soccer World Cup also began to be questioned due to high costs that would bring to Brazil. Posters with slogans such as "FIFA Health standard", "FIFA Education standard", were displayed in all manifestations. Anyway, it became clear that the background was dissatisfaction with the political class and the way the country’s problems were being treated. Politicians took various measures to address the demands of the population, but were unable to avoid sharp declines in the evaluations of their management and it was no different with President Dilma Rousseff.
Evaluation of the Federal Government

At this moment, Dilma suffers her first significant drop and her positive evaluation reaches 31%, decreases 24 points in just one month.

After a series of violent acts and acts of vandalism committed by a group called Black Blocks, leading also to the death of a person, the manifestations dissipated and lost public support.

In this calmer scenario, President Dilma recovers part of her evaluation and reaches, by the end of 2013, 43% of voters evaluating the government as excellent or good, but still far from the levels she had before the beginning of the manifestations.

CHART 2 – Evaluation of President Dilma Rousseff’s Government from 2011 to 2014 – 1st mandate

Source: Surveys from IBOPE Inteligência
The first surveys of 2014 showed that the President was not able to maintain the same levels reached at the end of 2013, and the positive evaluation curve was again declining. During the election campaign, she recovered some points and arrived at the end of the second round with 46% positive ratings.

The performance of the economy

As seen in the chart below, the average household income per capita had a positive variation in recent years, even above the GDP, but in 2013, there was a sharp drop. Inflation was at the limit of the target set, but at a level similar to that of previous years, and GDP having grown compared to the previous year.

CHART 3 – Performance of the Brazilian Economy – 1996 to 2013

In 2000 and 2010, Censuses were carried out and because of this; there is no release of PNAD – National Survey by Household Sampling (Pesquisa Nacional por Amostragem de Domicílios). We chose to omit the economic data of 2000 and 2010 in order not to mix methodologies.

Source: Developed by IBOPE Inteligência/IBGE/IPEA

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1 In 2000 and 2010, Censuses were carried out and because of this; there is no release of PNAD – National Survey by Household Sampling (Pesquisa Nacional por Amostragem de Domicílios). We chose to omit the economic data of 2000 and 2010 in order not to mix methodologies.
The measures adopted to strengthen the Brazilian economy, such as the credit increase, tax exemption for a number of products, reduction of electricity tariffs, control of the price of fuel, among others, were insufficient to recover the economy.

This perception of a decline in the purchasing power generated a negative opinion mood that also reflected in the consumer’s expectation curve. In September 2013, there was a drop in the National Consumer Expectation Index (INEC), but in the second semester of 2014, during the election campaign, there was a recovery.

The relevance of consumer expectation indicators lies in the fact that its development helps anticipate changes in the pace of economic activity. This happens because the evaluation of the consumer as to the circumstances precedes and, to some extent, determines variations in consumption and household savings.

**CHART 4 – INEC – National Consumer Expectation Index**

Source: Surveys from IBOPE Inteligência in partnership with CNI - National Industry Confederation (Confederação Nacional da Indústria)
An optimistic evaluation promotes the consumer’s confidence and a tendency to increase consumption, while uncertainty regarding the future sows pessimism and the desire to cut costs and restore financial reserves.

Expectations and consumer sentiment, therefore, tend to be a leading indicator of changes in household consumption and therefore the level of economic activity. Additionally, since they derive from public opinion surveys, the results are obtained in a very agile way when compared to other statistics.

INEC takes into account two types of variables: the future trend and current situation regarding inflation, unemployment, personal income, purchase of higher-value goods, financial situation and indebtedness.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Reference Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expectation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation</td>
<td>Future Trend</td>
<td>Next six months regarding the previous six months</td>
</tr>
<tr>
<td>Unemployment</td>
<td>Future Trend</td>
<td>Next six months regarding the previous six months</td>
</tr>
<tr>
<td>Personal Income</td>
<td>Future Trend</td>
<td>Next six months regarding the previous six months</td>
</tr>
<tr>
<td>Purchase of higher-value goods</td>
<td>Future Trend</td>
<td>Next six months regarding the previous six months</td>
</tr>
<tr>
<td><strong>Financial situation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial situation</td>
<td>Current situation</td>
<td>Moment of the answer regarding the three previous months</td>
</tr>
<tr>
<td>Indebtedness</td>
<td>Current situation</td>
<td>Moment of the answer regarding the three previous months</td>
</tr>
</tbody>
</table>

Source: Surveys from IBOPE Inteligência in partnership with CNI - National Industry Confederation (Confederação Nacional da Indústria)
The popularity of the Brazilian president has a strong correlation with consumer confidence. Whenever he is confident that his financial situation and employability will improve, the president in charge enjoys high rates of approval. Whenever the consumer expectation is that inflation will increase and his purchasing power will decline, the one who governs tends to lose popularity. So it was with Fernando Henrique and Lula, so it is with Dilma.

**The World Cup**
Since 1994, the presidential election years are also the Soccer World Cup years, and because of this, there are always questions about the possible effects that the results of the World Cup will have over the Brazilian elections. To date, it can be said that there is no effect of the fact of Brazil winning the championship and favoring the current president, but in 2014 the World Cup would take place in Brazil, new variables would come into play and speculation increased about whether the World Cup would help or hinder Dilma’s re-election.

**TABLE 2 – Results of the World Cup and the Presidential Elections**

<table>
<thead>
<tr>
<th>Ano</th>
<th>Results of the Soccer World Cup</th>
<th>Results of the Elections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>Brazil wins</td>
<td>PSDB wins with the election of Fernando Henrique</td>
</tr>
<tr>
<td>1998</td>
<td>Brazil loses</td>
<td>PSDB wins with the re-election of Fernando Henrique</td>
</tr>
<tr>
<td>2002</td>
<td>Brazil wins</td>
<td>PT wins with the election of Lula</td>
</tr>
<tr>
<td>2006</td>
<td>Brazil loses</td>
<td>PT wins with the re-election of Lula</td>
</tr>
<tr>
<td>2010</td>
<td>Brazil loses</td>
<td>PT wins with the election of Dilma</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência

There was much euphoria when Brazil was chosen to host the World Cup in 2014! The country was in a very good economic moment and it would be a great opportunity to project Brazil’s image to the world and attract new investment, contributing to the much desired development. However, after the 2013 protests, the holding of the World Cup in Brazil could play a big problem
for the government, for the organizers and the sponsors of the event. Delayed works in the construction of 12 stadiums, spending well above the initial budgets, denounces of overbilling, promises of infrastructure projects that never got off the ground were powerful ingredients to trigger a new wave of protests. Thus, 2014 started with a series of protests that roared that there would be no World Cup. As the months went by, the country's mood began to change and the sports schedule started to have more room than politics. Construction works were completed, delegations and tourists started to arrive in the country and despite the great dissatisfaction with politics; Brazilians received tourists with cordiality and lived two months with many celebrations throughout the country in an atmosphere of much harmony. Not even Germany’s 7-1 against Brazil was able to ruin the great celebration of the World Cup.

**The election campaign**

After the end of the World Cup, the focus shifted to the election campaign of 2014. In July, 11 candidates were officialized, and the key candidates were: Dilma Rousseff for PT (Workers Party), running for reelection, Aécio Neves for PSDB (Brazilian Social Democratic Party), Senator of the State of Minas Gerais, Eduardo Campos for PSB (Brazilian Socialist Party), former Governor of Pernambuco. The 2010 elections also had three main candidates: Dilma Rousseff for PT, José Serra for PSDB and Marina Silva for PV (Green Party). Both PV and PSB entered the dispute looking for a political space for the consolidation of a third alternative and to break the existing polarization between PT and PSDB.

After the 2010 elections, Marina Silva left PV and tried to set a new party, the Sustainability Network (Rede Sustentabilidade), with the aim of doing politics in a different way, with more popular participation and balance between economic development and sustainability, but failed. Marina then joined PSB, Eduardo Campos’ party, and became his vice. PT maintained PMDB as vice with Michel
Temer and PSDB chose the senator from São Paulo, Aloysio Nunes, also from PSDB.

However, on August 13, 2014, Eduardo Campos’ campaign airplane crashed and all passengers died. The tragedy and premature death of Eduardo Campos significantly altered the course of 2014’s elections. PSB officialized Marina Silva as the Party’s candidate and her vice was the deputy Beto Albuquerque of Rio Grande do Sul’s PSB.

After all the protests that took place in 2013 and 2014, the hosting of the World Cup and the poor performance of the Brazilian economy, the electoral campaign began with little interest, with a strong disillusionment with politics and with a great desire for change, besides the always low party identification.

The low interest in the elections and disillusionment in politics can be measured by the proportion of voters who said they would not vote if the vote were not mandatory: 50%. Only from the middle of the first term of President Lula, the willingness to vote reached the majority of voters.

**CHART 5 – Vote Condition, if it were not mandatory**

Source: Surveys from by IBOPE Inteligência
Another index that exemplifies the climate in which the election would take place is the desire for change or continuity. Seven out of ten voters wanted the next president completely change the programs and measures of the Federal Government or keep only some of them. This index is only lower than in 2002, the year of Lula's election. This scenario was very different from that of the 2010 election, where the desire for continuity prevailed for six out of ten voters.

**CHART 6 – Desire for continuity or change of the Federal Government**

Due to the amount of parties in Brazil and the low differentiation between them, preference or political party sympathy has always been very low, but PT reached about a third of voters declaring identification with the party, but this figure fell significantly and now reaches just over one-fifth of the electorate.
It is also important to mention that the use of social networks in this election was intense, by both the candidates and the voters. The debates were vehement and there was an intense discussion polarization regarding the presidential elections.

4 – Analysis of the results of the presidential elections of 2014

First Round of 2014

After a campaign full of striking events, PT’s candidate went to the second round with 42% of the valid votes, ahead of her competitors, but her performance was worse than in 2010, when she won 47% of the electorate.

Aécio Neves from PSDB reached 33,5% of valid votes and disputed the runoff with Dilma Rousseff, repeating the clash of the last six elections between PT and PSDB.
Marina Silva (PSB), that represented an alternative to break the polarization between both parties, reached 3rd place, just like in the election of 2010, with 21% of valid votes. Marina was unable to sustain the good performance she had when she entered the campaign, replacing the candidate Eduardo Campo, who died in a plane crash.

Marina was attacked by her opponents due to her contradictions and failed to react quickly, making her campaign become a downward trend. In turn, Aécio Neves failed to capture Marina’s votes at the same speed she fell. Only after the last debate of the election campaign, at the eve of the Election Day, Aécio managed to surpass Marina, reaching the second round.

Throughout the campaign, polls showed Dilma’s strength among the less educated voters, among the residents of the Northeast region, and among those with family income up to the minimum wage. On the other hand, Aécio Neves stood out among those with higher education, among residents of the Southeast and South and those with household income above 5 minimum salaries. Thus, each candidate had very antagonistic voters’ profiles throughout the first round of the presidential elections.
At the end, Dilma won in 15 states, three less than in the first round of 2010. She lost in Goiás, Espírito Santo and Pernambuco, states where she was ahead for 4 years. In political terms, the greatest victory took place in Minas Gerais, Aécio Neves’ homeland, although it was within a tight margin.

Aécio Neves won in nine states, and was ahead in São Paulo, state with the highest electoral density.

The following map shows the states in which each candidate won in the first round.
Second Round 2014

The runoff polls showed that the dispute would be quite fierce between the two candidates who have passed this phase. The first surveys, fostered by the growth of the last days of the campaign’s first round, Aécio was numerically ahead of Dilma.

Research carried out to monitor voting intentions of the second round showed Aécio had more supporters among respondents who had higher education, who lived in the Southeast and those who had a household income over 5 minimum wages. Whereas the current president had her best performance among voters who attended up to elementary school, among residents of the Northeast and among those whose family income was up to 1 minimum wage. The antagonistic profiles of the voters of each candidate remained as such throughout both rounds of 2014 elections.
Five days before the election of the second round, President Dilma Rousseff surpassed PSDB’s candidate and won the election with 52% of the votes, the narrowest victory since the redemocratization of the country.

In comparison to the second round of the presidential election of 2010, Dilma’s performance worsened in 15 states and in the Federal State, but obtained higher votes in the other units of the federation.

In the Southeast region of the country, Dilma’s preference decreased in the three states with greater electoral weight: in São Paulo she went from 46% to 36% of the valid votes, losing to Aécio Neves; in Rio de Janeiro decreased from 60% to 55% and in Minas Gerais went from 58% to 52%, but was ahead of her opponent.

**CHART 9 – Evolution of the Voting Intentions for President and TSE’s Official Results – 2nd Round – Valid Votes**

![Chart showing voting intentions](source: Surveys from IBOPE Inteligência/Supreme Electoral Court (Tribunal Superior Eleitoral - TSE))
5 – CONSTRUCTION OF THE GEOGRAPHIC VOTING MODEL

Voting maps of the second rounds of 2006 and 2010

Analyzing the voting maps of the second rounds of the presidential elections from 2006 to the present date, we see the same voting pattern. These results lead us to the following questions: What is more decisive regarding the choice of the presidential vote, the voter’s income/education? His social inclusion and the place he lives? What is the weight of peer pressure over his voting decision? What is the quantitative penetration that a social program like Bolsa Família needs to have in a given region in order to influence the voter’s choice?

Although there is little literature in Brazil about the geography of the vote, this is a highly studied subject in other countries (United States, England, France, among others).

In Brazil, the theme has already been the object of study of some researchers who analyzed the pattern of voting behavior, by mapping the results of previous elections and the existing relationship with indicators of social and economic development of the country, as well as the presence of social benefits of the Federal Government. (JACOB, C.; HEES, D.; WANIEZ, P.; BRUSTLEIN, V., 2010 and NICOLAU, J., 2014)

MARZAGÃO, T. (2013) also presented evidence of a strong association between the strongholds of Lula and Dilma, in 2006 and 2010, respectively.

However, there is still much to study about the geography of the vote in Brazil. The following maps show the official results of the second round of elections in 2006 and 2010, considering the municipality as the unit of analysis. The municipalities where PT had a greater number of votes are marked in red and those in blue had more votes for PSDB.
MAP 2 – Results of the second round of the presidential elections of 2006

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

MAP 3 – Results of the second round of the presidential elections of 2010

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)
Construction of homogeneous voting areas based on the results of second rounds of presidential elections of 2006 and 2010

Since the pattern of results of the second round of the presidential elections of 2006 and 2010 is very similar, we decided to create a classification for the municipalities from these results in order to estimate the results for 2014.

The classification of municipalities was built to form homogeneous voting areas as follows:

- If PT’s candidate lost in the second round of the 2006 and 2010 elections to his opponent, the municipality was named as Anti PT;
- If PT’s candidate achieved more votes in the second round of the 2006 or 2010 elections, but wasn’t able to achieve the same in the other, the municipality was named as Volatile; and
- If PT’s candidate achieved more votes, regardless of the percentage reached, in the second round of the 2006 and 2010 elections, the municipality was named as Pro-PT.

The following map shows the graphic representation of the homogeneous voting areas.

The municipalities that are marked in red show that PT won the second round of the presidential elections in 2006 and 2010. Those in blue are those where PSDB won both elections and those in gray represent the municipalities in which PT won one election and lost the other, no matter which one.
MAP 4 – Combined results of the second rounds of the presidential elections of 2006 and 2010

In numerical terms, the distribution of municipalities and the country's electorate as a whole in the three classifications created, considering the electoral base of 2010 is as follows:

**TABLE 3 – Distribution of Municipalities and Voters in the Homogeneous Voting Areas**

<table>
<thead>
<tr>
<th>Homogeneous Voting Areas 2006 and 2010 Elections 2nd Round</th>
<th>Amount of Municipalities in 2010</th>
<th>Amount of Voters in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-PT</td>
<td>1.206</td>
<td>30.665.236</td>
</tr>
<tr>
<td>Volatile</td>
<td>826</td>
<td>17.703.946</td>
</tr>
<tr>
<td>Pro-PT</td>
<td>3.533</td>
<td>59.571.305</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5.565</strong></td>
<td><strong>107.940.487</strong></td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)
Considering this classification, 63% of the municipalities are classified as **Pro-PT**, 22% as **Anti PT** and 15% as **Volatile**. Once the municipality is classified into one of the categories, we assume that all voters also fall into the same category.

In terms of voters, the distribution changes slightly, 55% of voters are in the municipalities classified as **Pro-PT**, 28% are in **Anti PT** and only 16% are in the so-called **Volatile**. Thus, it can be seen that the **Pro-PT** area is composed of many municipalities, but with a lower voting density than other areas.

**Evaluation of 2014 results in the homogeneous voting areas**

Based on this knowledge, the next goal was to assess how the votes of the candidates in the runoff of the 2014 elections were distributed in the municipalities classified as **Pro-PT**, **Anti PT** and **Volatile**, based on homogeneous areas created from the results of 2006 and 2010.

**TABLE 4 – Results of the 2nd round of 2014, according to the homogeneous voting areas based on the outcomes of 2006 and 2010, in number of municipalities**

<table>
<thead>
<tr>
<th>Homogeneous Voting Areas 2006 and 2010 Elections 2nd Round</th>
<th>2014 Results– 2nd Round Amount of municipalities in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-PT</td>
<td>PT</td>
</tr>
<tr>
<td></td>
<td>96</td>
</tr>
<tr>
<td>Volatile</td>
<td>279</td>
</tr>
<tr>
<td>Pro-PT</td>
<td>3,151</td>
</tr>
<tr>
<td>Total</td>
<td>3,526</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)
It is observed that in 92% of the municipalities classified as **Anti PT**, based on the results of the second round of the 2006 and 2010 elections, PSDB won in 2014 and in only 8% of them PT was ahead. On the other hand, in 89% of the municipalities considered **Pro-PT**, PT won and in only 11% of the municipalities, PSDB won. Municipalities called **Volatile** showed a greater advantage for PSDB in 2014.

In 2014, the total number of municipalities was 5,570, but since we define the homogeneous voting areas based on the results of 2006 and 2010, we only have 5,565 municipalities in the previous tables, because since then, five new municipalities were created from the emancipation of districts that belonged to some municipalities.

TABLE 5 – List of emancipated municipalities from 2010 to 2014

<table>
<thead>
<tr>
<th>Federation Unit</th>
<th>Emancipated Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>PARAÍSO DAS ÁGUAS</td>
</tr>
<tr>
<td>PA</td>
<td>MOJUI DOS CAMPOS</td>
</tr>
<tr>
<td>RS</td>
<td>PINTO BANDEIRA</td>
</tr>
<tr>
<td>SC</td>
<td>PESCARIA BRAVA</td>
</tr>
<tr>
<td>SC</td>
<td>BALNEÁRIO RINCÃO</td>
</tr>
</tbody>
</table>

Source: IBGE

Analyzing the results of the second round of 2014 presidential elections in the homogeneous voting areas created, we see that the absolute majority of voters living in municipalities considered **Pro-PT**, in fact, voted for PT. The same happens in the municipalities classified as **Anti PT**, where the large majority voted for PSDB’s candidate. Voters located in **Volatile** areas were divided again between the two candidates, with a slightly higher advantage for PSDB in 2014.
TABLE 6 – Results of the second Round of 2014, according to the homogeneous voting areas based on the outcomes of 2006 and 2010, in number of voters

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PT</td>
<td>PSDB</td>
</tr>
<tr>
<td>Anti-PT</td>
<td>10.351.531</td>
<td>19.417.800</td>
</tr>
<tr>
<td>Volatile</td>
<td>7.397.179</td>
<td>9.900.068</td>
</tr>
<tr>
<td>Pro-PT</td>
<td>36.708.743</td>
<td>21.603.069</td>
</tr>
<tr>
<td>Total</td>
<td>54.457.453</td>
<td>50.920.937</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

The existence of a complete voting homogeneity in each area is not expected, but a greater predominance of votes for each party in their respective areas is. With this analysis, the results of past elections appear as a good approach for future results.

The following map shows the geographic voting pattern of the second round of 2014 presidential elections remained virtually the same as 2006 and 2010 elections, despite PT's loss of power. Thus, there are some indications that the vote in Brazil may be increasingly stronger in geographic terms.
Analysis of the homogeneous voting areas with the inclusion of 2014’s results

With the results of the second rounds of the last three presidential elections (2006, 2010 and 2014), we created new homogeneous areas of voting. The criterion to define the areas considered the rules outlined in the following table.
### TABLE 7 – Classification of the Municipalities with the Inclusion of the Results of the Second Round of 2014

<table>
<thead>
<tr>
<th>Results of the Second Round of the presidential elections</th>
<th>Classification of the municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 PT lost</td>
<td>Anti PT</td>
</tr>
<tr>
<td>2006 PT won</td>
<td>Pro-PT</td>
</tr>
<tr>
<td>Any other combination</td>
<td>Volatile</td>
</tr>
<tr>
<td>2010 PT lost</td>
<td>Anti PT</td>
</tr>
<tr>
<td>2010 PT won</td>
<td>Pro-PT</td>
</tr>
<tr>
<td>2014 PT lost</td>
<td>Anti PT</td>
</tr>
<tr>
<td>2014 PT won</td>
<td>Pro-PT</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão

With this new classification of the municipalities, PT has a loss and there is a significant increase of **Volatile** areas, which means that the municipalities located in these areas have already overwhelmingly voted for PT, but in this last election chose the opposing candidate.

### MAP 6 – Combined results of the second rounds of the presidential elections of 2006, 2010 and 2014

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)
With the inclusion of the results of 2014 in the creation of the homogenous voting areas, municipalities classified as **Anti PT** go from 22% to 20%, **Volatile** from 15% to 23% and those who are **Pro-PT** decrease from 63% to 57%, as can be seen in the next table.

### TABLE 8 – Classification of the Municipalities with the Inclusion of the Results of the Second Round of 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-PT</td>
<td>1.110</td>
<td>31.049.407</td>
</tr>
<tr>
<td>Volatile</td>
<td>1.309</td>
<td>32.948.085</td>
</tr>
<tr>
<td>Pro-PT</td>
<td>3.151</td>
<td>53.599.183</td>
</tr>
<tr>
<td>Total</td>
<td>5.570</td>
<td>117.596.674</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

The trend is confirmed when we analyze voters who live in these municipalities. PT’s loss is more significant because the voters living in **Pro-PT** municipalities go from 55% to 46%, while the **Volatile** increase from 16% to 28%, greater relative difference; and the **Anti PT** stay at the same level, varying from 28% to 26%.

Regarding the results of the second round of 2014 within each homogeneous area, they remain at similar levels to those analyzed when the municipalities are classified based only on 2006 and 2010 elections.

About two thirds of voters who live in **Anti PT** areas vote on PT’s opponent party, and the same happens when the analysis is the other way around. In the **Volatile** areas, the voters are divided between the two candidates, but to the advantage of PSDB.
**TABLE 9 – Results of the 2nd Round of 2014, according to the homogeneous voting areas created from the outcomes of 2006, 2010 and 2014**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PT</td>
</tr>
<tr>
<td>Anti-PT</td>
<td>9.367,622</td>
</tr>
<tr>
<td>Volatile</td>
<td>13,006,269</td>
</tr>
<tr>
<td>Pro-PT</td>
<td>32,096,168</td>
</tr>
<tr>
<td>Total</td>
<td><strong>54,470,059</strong></td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

If this polarization remains in future elections, PT’s challenge will be to increase the distance between their opponents in areas that are favorable for this party and reconquer space among the voters who are in the so called Volatile areas, since they have already voted for PT at some point, but now they no longer do.

**The Factor Bolsa Família**

Another variable that is very important to be examined in this context is the distribution of one of the key social benefits implemented in Brazilian municipalities during PT’s administration. Is there a strong correlation between participating in this social benefit and voting for PT?

The next map shows the proportion of people benefited by Bolsa Família in each Brazilian municipality. The municipalities were divided into quartiles according to the proportion of beneficiaries, following the colors and proportions described below:

- **Dark blue** – up to 17% of the population of the municipality is benefited by the Bolsa Família – 1,378 municipalities (25% of the total)
- **Light blue** - over 17% up to 33% of the population is benefited by the Bolsa Família – 1,419 municipalities (25% of the total)
• **Light red** – over 33% up to 54% of the population is benefited by the Bolsa Família – 1.378 municipalities (25% of the total)
• **Dark red** – over 54% of the population is benefited by the Bolsa Família – 1.394 municipalities (25% of the total)

Thus, the darker the red, the higher the proportion of municipality voters participating in the Bolsa Familia. On the other hand, the darker the blue, the lower the proportion of beneficiaries of this social program.

The visualization itself of the next map already shows the strong correlation between voting for PT and the voter being benefited by the Bolsa Família, since the voting spots are very similar to the distribution of social benefits.

To confirm this hypothesis, we calculated the correlation between the proportion of beneficiaries of the Bolsa Familia program in each municipality and the proportion of valid votes obtained by PT in the runoff of 2010 and 2014 presidential elections.

We used Pearson’s correlation to measure the intensity and direction of the relationship of these two variables.

The correlation between the two variables was fairly high in 2010 and even more in 2014, as shown in the table below:

TABLE 10 – Correlation between the proportion of people benefited by the Bolsa Família and votes received by PT in the second round of the presidential elections of 2010 and 2014, in each municipality

<table>
<thead>
<tr>
<th>Second Round of the Elections</th>
<th>Vote correlation between PT and Bolsa Família</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid votes for PT in 2010</td>
<td>0,70</td>
</tr>
<tr>
<td>Valid votes for PT in 2014</td>
<td>0,83</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência
In addition to the correlation calculation, we also calculated the Odds Ratio, which is defined as the ratio of the chance of an event occurring in one group and the chance of that event occurring in another group.

For this analysis, the homogeneous voting areas were treated as events and the penetration of Bolsa Família in the municipality as groups:

- Homogeneous Voting Areas:
  - If the municipality is Pro-PT it is coded 1
  - If the municipality is Anti PT it is coded 0
  - If the municipality is Volatile it is coded 0
Proportion of Bolsa Família in the municipality:

- If over 50% of the population benefits from Bolsa Família, the municipality is coded 1
- If less than 50% of the population benefits from Bolsa Família, the municipality is coded 0

**TABLE 11 – Odds Analysis**

<table>
<thead>
<tr>
<th>Result of the Second Round of 2014</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homogeneous voting areas based on 2006 and 2010</td>
<td>21</td>
</tr>
<tr>
<td>Homogeneous voting areas based on 2006, 2010 and 2014</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência

This result indicates that municipalities that have over 50% of the population benefited from the Bolsa Família have 21 times higher chance of being **Pro-PT** than in municipalities where the proportion of people in the program is less than 50%, considering the homogeneous voting areas constructed from the results of the second round of 2006 and 2010 elections.

When we consider the homogeneous areas derived from the results of the second rounds of elections in 2006, 2010 and 2014, the municipalities with more than 50% of the population benefited by the Bolsa Família have a 29 times greater chance of being **Pro-PT** than those that hold this benefit to a lesser degree.

The Odds analysis shows that the proportion of beneficiaries of the Bolsa Família in a municipality is strongly correlated with the vote for PT.

In 2006 and 2010 the Bolsa Família Program was the main factor to explain the variation of the candidates in the municipalities; its effect on the two elections was strongly associated with the pattern vote of PT and PSDB (NICOLAU, J, 2014).
Analysis of the results of the presidential elections in the largest Electoral College – São Paulo

In the State of São Paulo, the country’s largest Electoral College, the opposition candidate won, even among the poorest and least educated, thus showing the evidences of regionalization of the vote.

MAP 8 – Result of the Second Round of the Presidential Elections of 2014, in the State of São Paulo

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

However, it should be taken into account that the State of São Paulo only has two municipalities (Itapirapuã Paulista and Barra do Chapéu) that have over 50% of its population assisted by the Bolsa Família. Of the 645 municipalities
that comprise the State, the vast majority (70%) only have 17% of the population benefited by the Bolsa Família program.

Is it possible that if the Bolsa Familia program benefited a greater share of this State’s population, the result of this election would be different?

In the case of the city of São Paulo, only 11% of the population benefits from the Bolsa Família and the PSDB candidate won in most precincts of the capital, despite PT having been ahead in the municipality’s outskirts. On the other hand, in the last election for Mayor of São Paulo, Fernando Haddad of PT was elected.

**MAP 9 – Result of the Second Round of the Presidential Elections of 2014, in the city of São Paulo**

Source: Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)
6 – Scores Model

We also developed a model of points to individually classify respondents of election polls, conducted by IBOPE Inteligência, and analyze their voting intention, as well as their evolution during the second round of the presidential election of 2014. The objective of this model was to separate voters according to certain characteristics of support or not for PT in the same groups defined for the classification of the municipalities: Anti PT, Volatile and Pro-PT.

Description of the Model

To calculate the electoral scores, we use the following variables of research held throughout the runoff:

- Government approval (approves)
- Government Evaluation (excellent / good)
- Party preference (PT)
- Rejection of candidates (does not reject Dilma Rousseff)
- Is a beneficiary of the Bolsa Família? (yes)

The score of each individual was calculated through the sum of points given to the above variables, according to each respondent’s answer.

The score ranges from zero to 5 points. For each positive response in the selected variables, the respondent gets 1 point.

For example, the individual who disapproves the way President Dilma administers the country, does not consider the federal government’s administration as excellent or good, has no political party preference for PT, rejects the candidate Dilma Rousseff and is not a beneficiary of the Bolsa Família program, receives zero points.

On the other extreme, there are people who approve of how the President runs the country, consider the Federal Government’s administration excellent or good, are sympathetic to PT, do not reject the candidate Dilma and are beneficiaries of the Bolsa Família. In this case, the respondent earned 5 points.
According to the points the respondents received, a final score was calculated for each one of them.

The division of the scores in the groups of analysis was done like this:

**TABLE 12 – Classification on the Scores Model**

<table>
<thead>
<tr>
<th>Classification of the respondent</th>
<th>Rating in the Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti PT</td>
<td>0</td>
</tr>
<tr>
<td>Volatile</td>
<td>1 and 2</td>
</tr>
<tr>
<td>Pro PT</td>
<td>3 to 5</td>
</tr>
</tbody>
</table>

Source: Developed by IBOPE Inteligência/Estadão

The correlation analysis between the variables used in the score model showed that most of the values were not high. Because of this, we included all the variables in the model since the objective was merely to classify respondents according to their answers and not to do a regression analysis to find out which of these variables most explained the voting intentions of the citizen. Thus, multicolinearity of the variables ceases to be a problem.

**Results of the Scores Model**

The following table shows the proportion of voters who were classified in each group throughout the surveys conducted in the second round of elections:

**TABLE 13 – Classification on the Scores Model**

<table>
<thead>
<tr>
<th>Classification of the Scores</th>
<th>Polls released in the second round</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date: 09/10 15/10 22/10 25/10</td>
</tr>
<tr>
<td>Anti PT</td>
<td>34% 31% 31% 29%</td>
</tr>
<tr>
<td>Volatile</td>
<td>28% 28% 25% 26%</td>
</tr>
<tr>
<td>Pro PT</td>
<td>38% 41% 44% 45%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100% 100% 100% 100%</td>
</tr>
</tbody>
</table>

Source: Surveys from by IBOPE Inteligência/ Developed by IBOPE Inteligência/Estadão
The Pro-PT group started to increase over the short campaign of the second round and it was even bigger in the first two rounds of the research, where Aécio Neves of PSDB was ahead of the dispute with Dilma Rousseff.

With the classification of respondents in the groups created from the scores model, it was possible to evaluate the evolution of voting intentions within each group and over time.

In the model of scores there is also a high correlation between voting intention and the group to which the respondent belongs. This correlation is even higher than that observed in the geographic models because in this model we are individually treating the voters and not considering the average behavior of the municipality for all voters.

Once again, the group of Volatile voters has a greater preference for PT’s opposition candidate.

**TABLE 14 – Voting Intention in the Scores Model Groups**

<table>
<thead>
<tr>
<th>Candidates</th>
<th>Pro-PT</th>
<th>Volatile</th>
<th>Anti PT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09/oct</td>
<td>15/oct</td>
<td>22/oct</td>
</tr>
<tr>
<td>Aécio Neves</td>
<td>7%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Dilma Rousseff</td>
<td>93%</td>
<td>91%</td>
<td>95%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Surveys from IBOPE Inteligência/Developed by IBOPE Inteligência/Estadão

**Comparison of the Results of Geographic and Scores Models**

Regardless of the criteria used for the creation of homogenous voting areas or groups with similar behaviors, the proportion of voters classified into each follows the same order of magnitude, what reinforces that past electoral behavior is important to understand future moves, at least in this period of time.
About a third of Brazilian voters are in the group of **Anti PT**, about a quarter are **Volatile**, that is, change their voting position according to the electoral context and almost half is positioned as **Pro-PT**.

**TABLE 15 – Proportion of Voters Classified in Homogeneous Voting Areas or Similar Groups according to the Geographic and Scores Models**

<table>
<thead>
<tr>
<th>Homogeneous Voting Areas/Groups</th>
<th>Type of Model</th>
<th>Geographic Base Elections of 2006 and 2010</th>
<th>Geographic Base Elections of 2006, 2010 and 2014</th>
<th>Scores (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti PT</td>
<td></td>
<td>28%</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>Volatile</td>
<td></td>
<td>16%</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Pro-PT</td>
<td></td>
<td>55%</td>
<td>46%</td>
<td>45%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Surveys from by IBOPE Inteligência/ Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

In the geographic models, whether they are based on the results of 2006 and 2010 elections, or the inclusion of 2014 elections, the voting proportions are similar to PT and PSDB in their respective homogeneous areas. In the **Anti PT** areas, two-thirds of the votes stay with PSDB. In turn, PT also wins about two-thirds of those who are located in areas called **Pro-PT**. In **Volatile** areas, PSDB gets a little more than half of the valid votes and PT gets the rest.

In the scores model, the correlation between the vote and the groups to which voters belong is almost perfect, since we are individually treating the citizens, according to their political views during the election period and not assigning the behavior of the majority to all voters of the municipalities.

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2 Results from the latest survey conducted by IBOPE Inteligência and published on the day before the second round of 2014 election
TABLE 16 – Results of the Second Round of 2014 by Homogeneous Voting Areas or Similar Groups according to the Geographic and Scores Models

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PT</td>
<td>PSDB</td>
<td>PT</td>
</tr>
<tr>
<td>Anti PT</td>
<td>35%</td>
<td>65%</td>
<td>34%</td>
</tr>
<tr>
<td>Volatile</td>
<td>43%</td>
<td>57%</td>
<td>44%</td>
</tr>
<tr>
<td>Pro-PT</td>
<td>63%</td>
<td>37%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Source: Surveys from by IBOPE Inteligência/Developed by IBOPE Inteligência/Estadão with data from the Supreme Electoral Court (Tribunal Superior Eleitoral - TSE)

In the scores model, the last poll released before the second round showed that 99% of voters who were classified in the **Anti PT** group would vote for PSDB. In the **Volatile** group, almost two thirds declared they had the intention to vote for PSDB and the remaining one third for PT. Finally, in the **Pro-PT** group, although they obtained enough points to fit into this group, 8% of them said they would vote for PSDB, therefore, PT’s loss was higher among its supporters than PSDB’s in its own group.

**7 – CONCLUSIONS**

It is a fact that the geographical pattern of votes for the President has been repeating since the elections of 2006. However, it is noted that in 2014 elections, there is a significant loss of PT, especially when compared with the results of previous elections. With the creation of homogenous voting areas and the comparison of the last three runoff elections, we can see the significant increase of the proportion of **Volatile** voters, that is, those who have voted for PT in some past elections, but now have not repeated their vote.
According to NICOLAU, J. (2014) on the regional dimension the 2006 elections had a significant effect, but weakened in 2010. In any case, in the 2014 election there is no evidence to support a vote of class, since PT’s victory is greater in the North (except in Pará) and Northeast, regardless of the voter’s social class or educational level. On the other hand, in the Midwest, Southeast (except Minas Gerais) and South there is a predominance of voting for the opposition, even among those most in need, as it happens, for example, in the state of São Paulo, supporting the hypothesis of regional vote.

However, as shown in other studies (NICOLAU, J; 2014), we find that the Bolsa Família program is strongly correlated to vote, when we analyze the proportion of beneficiaries per municipality and the result obtained by the PT in the elections. It is worth further study to identify from what proportion of the population benefits from the municipality is crucial to vote for the PT. When we geolocate the distribution of Bolsa Família, dividing the municipalities according to the proportion of beneficiaries in each, we see in the map of Brazil a similar pattern of the vote.

It will be the subject of a forthcoming study the understanding of the evolution of the Bolsa Família program since 2006 and the pattern of voting for PT in the municipalities. Furthermore, it is necessary to understand the areas that have become Volatile in 2014. The idea is to find if the loss of the PT in these municipalities was due to the drop of the number of beneficiaries in Bolsa Família or if there are other variables that begin to interfere with the pattern of voting.

The scores model applied during the execution of the polls is also an excellent approach of the geographic vote. The homogeneous voting areas and the Pro-PT, Volatile and Anti PT groups formed from the answers given in the surveys are almost at the same size.
It is necessary to understand better about the geography of voting in Brazil, as well as to monitor the future movements in order to understand:

- If PT's loss will continue to occur in the upcoming elections, or
- If PT will recover the **Volatile** voters, or
- If PT will increase the difference on their opponents among the **Pro-PT** voters, or
- If there will occur, in fact, a change in the geographic pattern of voting in Brazil.

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OTHER SOURCES OF INFORMATION:

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- Superior Electoral Court – www.tse.gov.br
- IBGE – www.ibge.gov.br
All of IBOPE Inteligência’s surveys mentioned in this article are carried out nationwide with samples ranging from 2.002 to 3.100 interviews.

The sampling model is of three-stage clusters. In the first stage, the municipalities where the interviews will be made are probabilistically chosen using the PPS method (Probability Proportional to Size).

In the second stage, census sectors of self representative municipalities are also chosen via the PPS method and in the last stage, the respondent is chosen through proportional quotas considering the variables: gender, age, education, and economic dependence sector.