Electoral TV Campaign Database (HGPE) – Federal Deputy Candidates of the State of Rio de Janeiro 1998-2018*

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Resumo

Banco de Dados do Horário Gratuito de Propaganda Eleitoral (HGPE)\(^1\) dos Candidatos a Deputado Federal do Estado do Rio de Janeiro – 1998-2018

Nesta nota técnica apresentamos um dos principais legados empíricos da pesquisa sobre propaganda das candidatas/dos candidatos a Deputado Federal do Estado do Rio de Janeiro no Horário Gratuito de Propaganda Eleitoral (HGPE) no período de 1998 a 2018. Trata-se de introduzir e descrever o processo de coleta dessa base de dados, os procedimentos utilizados ao longo do tempo para a sistematização das informações e os possíveis usos de dois bancos de dados vinculados à pesquisa: o primeiro possui como unidade de análise os programas eleitorais gravados no período; e, o segundo, possui como unidade de análise os/as candidatos/candidatas, contabilizando o tempo (em segundos) de aparição no HGPE; desempenho eleitoral de cada candidata/candidato (votos e resultado final); financiamento de campanha e outras características políticas, sociais e demográficas. O banco apresentado abarca nada menos do que 9.433 programas eleitorais gravados à noite, dos quais participaram 1.774 candidados/candidatas.

Palavras-chave: HGPE; base de dados; nota técnica; eleições

Abstract

Electoral TV Campaign Database (HGPE)– Federal Deputy Candidates of the State of Rio de Janeiro 1998-2018

In this technical note, we present one of the main empirical legacies of the research on the electoral campaign of candidates for Federal Deputy in the state of Rio de Janeiro during the free time granted by the government for electoral propaganda (Horário Gratuito de Propaganda Eleitoral – HGPE) from 1998 to 2018. The aim is to introduce and describe the process of data collection for this database, the procedures used over time for the systematization of information, and the potential uses of two databases linked to the research: the first analyzes the electoral programs recorded during the period and the second the unit of analysis is the individual candidates, coding the time (in seconds) of appearance in the HGPE, the electoral performance of the candidates (votes and final result), campaign financing, and other political, social, and demographic characteristics. The database includes 9,433 electoral programs broadcasted in the evening, in which 1,774 candidates participated.

Keywords: HGPE; database; technical note; elections
Résumé

Base de Données sur la Publicité Électorale (HGPE) des Candidats à la Députation Fédérale de l’État de Rio de Janeiro - 1998-2018

Dans cette note technique, nous présentons l’un des principaux legs empiriques de la recherche sur la publicité télévisée des candidats à la députation fédérale de l’État de Rio de Janeiro dans le cadre de la période de 1998 à 2018. Il s’agit d’introduire et de décrire le processus de collecte de cette base de données, les procédures utilisées au fil du temps pour la systématisation des informations et les utilisations possibles de deux bases de données liées à la recherche : la première ayant pour unité d’analyse les programmes électoraux enregistrés pendant la période ; et la seconde ayant pour unité d’analyse les candidats, comptabilisant le temps (en secondes) d’apparition dans le HGPE ; la performance électorale de chaque candidat (votes et résultat final) ; le financement de la campagne et d’autres caractéristiques politiques, sociales et démographiques. La base de données présentée couvre pas moins de 9 433 programmes électoraux enregistrés pendant la période nocturne, auxquels ont participé 1 774 candidatures.

Mots-clés: HGPE; base de données ; note technique ; élections

Resumen

Base de Datos de Propaganda Electoral (HGPE) de Candidatos a Diputados Federales en el Estado de Río de Janeiro - 1998-2018

En esta nota técnica, presentamos uno de los principales legados empíricos de la investigación sobre la publicidad televisiva de las candidatas/de los candidatos a diputado federal en el Estado de Río de Janeiro en los Horarios Gratuitos de Publicidad Electoral (HGPE) en el periodo de 1998 a 2018. El objetivo es presentar y describir el proceso de recopilación de esta base de datos, los procedimientos utilizados a lo largo del tiempo para sistematizar la información y los posibles usos de dos bases de datos vinculadas a la investigación: la primera tiene como unidad de análisis los programas electorales registrados durante el periodo; y la segunda tiene como unidad de análisis las candidatas/los candidatos, contabilizando el tiempo (en segundos) que aparecieron en el HGPE; el rendimiento electoral de cada candidato/candidata (votos y resultado final); la financiación de la campaña y otras características políticas, sociales y demográficas. La base de datos presentada incluye no menos de 9.433 programas electorales grabados por la noche, en los que participaron 1.774 candidatas/candidatos.

Palabras-clave: HGPE; base de datos; nota técnica; elecciones
Introduction

The Laboratory of Electoral Studies, Political Communication, and Public Opinion (DOXA) has an extensive audiovisual collection of political programs, including recordings aired during free TV time for electoral and party propaganda, debates, interviews with candidates, electoral and party spots, news programs, among others. Since its establishment in 1996 under the coordination of Marcus Figueiredo (Borba, Aldé, 2017; Aldé, 2014; Aldé, Vasconcelos, 2012), the laboratory has conducted various research projects in areas of electoral behavior, political communication, political and electoral marketing. Many of these projects have been crucial for the development of this field of study in Brazil (Figueiredo et al., 1998; Figueiredo, 2022).

Building on this history, this technical note specifically presents one of the main empirical legacies of research on the propaganda of federal deputy candidates for the state of Rio de Janeiro during the TV electoral campaign (HGPE) from 1998 to 2018. We aim to introduce and describe the data collection process, the procedures used over time to systematize the information, and the potential uses of two databases linked to the research: the first database analyzes the electoral programs recorded during that period and in the second the unit of analysis is the candidate, coding information that includes the time (in seconds) of appearance in the HGPE, electoral performance (votes and final results), campaign financing, and other political, social, and demographic characteristics. The database we present encompasses 9,433² electoral programs broadcast in the evening prime time, involving 1,774 candidates' campaign.

This technical note is organized as follows: in addition to this introduction, we briefly explain how the HGPE is institutionalized in Brazil and its use in social science research; we describe the process of collecting information for the two databases introduced herein; we provide descriptive statistics for the program database and the candidate database; and finally, we offer some conclusions.

HGPE: History and Importance

The HGPE was established in 1965 by Law 4.737, which created the Brazilian Electoral Code (Borba, Dutt-Ross, 2022; Cervi, 2011; Machado, 2009). Since then, it has undergone several changes. Considering the period after the first presidential elections in 1989, the HGPE has gone through
three major changes. In 1989 (Law No. 7.773), the HGPE was broadcast daily for sixty days before the election, totaling 140 minutes a day (in two segments of 70 minutes each). In the 1994 elections, according to Law No. 8.713/1993, it expanded to sixty days of free radio and television advertising campaign, with two sixty-minute blocks per day (120 minutes in total) from Monday to Sunday. From the 1998 to the 2014 elections (according to Law No. 9.504/1997), the electoral TV campaign was aired for forty-five days in two blocks of 50 per day from Monday to Saturday. Finally, in the 2018 elections (according to Law No. 9.504/1997, amended by Law No. 13.165/2015), the HGPE began to be broadcast for thirty-five days, with two 25-minute blocks per day from Monday to Saturday (Borba, Dutt-Ross, 2022).

The HGPE time is in part distributed equally among political parties, and in part, it is proportional to their number of parliamentary chairs. Currently, one-tenth of the time is divided equally, and nine-tenths proportionally to the number of representatives elected in the previous election. In other words, larger parties have more time in the HGPE. The distribution is carried out according to the national caucus, and after the 2018 elections and the implementation of the so-called performance clause (Constitutional Amendment 97/17), parties must have a minimum number of votes in the previous election to use the HGPE4.

The distribution of time (in total minutes) by electoral office is shown in Figure 1.

**Figure 1**

Daily HGPE time for candidates of each office

![Diagram of HGPE time distribution by office](source: authors' own work)
The reduction in the HGPE time, the rise of new forms of election campaigning through the internet and social media (Borba, Dutt-Ross, 2022; Schaefer et al., 2019), and the election of candidates with very little television time (such as Jair Bolsonaro in the 2018 presidential election) led to academic studies and to press diagnoses that the HGPE had lost prominence in electoral campaigns. However, data from the 2018 election and subsequent election campaigns demonstrate the contrary.

Firstly, Borba and Dutt-Ross (2022) show that the fact that voters watched the HGPE had an impact on their knowledge about the candidates (around 51% in the case of Bolsonaro and 50% in the case of Fernando Haddad). Secondly, in subsequent elections (the 2020 municipal election and the 2022 general election), electoral alliances between candidates demonstrated that they sought to secure more television time. Since the HGPE is distributed proportionally based on the electoral weight of parties (number of elected representatives), the coalitions formed in major and proportional campaigns (before they were forbidden in 2017) aimed to give candidates greater exposure. Finally, it is also important to consider that the HGPE has an impact on voters’ access to information on candidates and their proposals (Valentino et al., 2004).

Therefore, the HGPE has been studied both as a dependent and independent variable. In the former case, research focuses on observing party strategies in the use of the HGPE (Albuquerque, Steibel, Carneiro, 2008), messages conveyed by candidates (Borba, 2015; Borba, Veiga, Martins, 2018), types of appeals used (Machado, 2009), inequality in the distribution of time based on characteristics like gender and race (Cervi, 2011; Janusz, Campos, 2021; Mendonça, Ogando, 2013), the use or non-use of the party’s image in programs in major and proportional elections (Dias, 2020), among others. As an independent variable, the HGPE is analyzed in terms of its relationship with the candidates’ electoral performance (Borba, Cervi, 2017) – in other words, the extent to which campaign strategies and time distribution succeed or fail (Borba, 2015).

This brief description highlights the importance of the HGPE as a resource in election campaigns and the importance of the databases presented here. In the next section, we will highlight the process of collecting and systematizing the information.
Data Collection and Systematization Process

The data collection of electoral programs was carried out based on the information in the video recordings of the programs available in the DOXA archive. The recordings were made on VHS Video Home System (VHS) tapes using videocassette equipment from 1998 to 2006. Subsequently, the tapes were converted to Digital Video Disk (DVD) and other digital formats. Master’s and doctoral students worked on the manual data collection process (recordings). Starting from 2014, databases were created with the information stored in digital format, by systematizing the programs based on blocks of variables (coded for each candidate/program)\(^5\).

In total, 123 variables were collected in five blocks, considering: 1) election identification variables; 2) identification variables for federal deputy candidates; 3) identification variables for the HGPE; 4) HGPE description variables; 5) variables related to the discourse in the HGPE. This includes subgroups of variables that consider the mentions the candidate makes throughout the program (to other political figures, religious figures, celebrities, among others); mentions of specific locations; the type of promises; dominant appeals; as well as mentions of themes (education, economy, health, security, etc.). The last block (5) includes variables related to attributes present in the Superior Electoral Court (TSE) database, such as electoral performance (elected, not elected), competitiveness, and social and demographic characteristics (occupation, education, age, among others).

This database has the candidate’s program in the HGPE as its unit of analysis, totaling 9,439 observations (1998: 1,071; 2002: 1,778; 2006: 1,351; 2010: 1,610; 2014: 2,703; 2018: 926) (Figure 2). It was named bd_doxa_programas_HGPE and is available in the following formats: R (RData) and Excel (.xlsx).
The second database referred to bd_doxa_candidatos_HGPE (also available in RData and .xlsx formats), has the candidates as its unit of analysis, totaling 6,083 cases. In total, 52 variables were collected in six blocks. These are organized as follows: 1) candidate and election identification; 2) party characteristics (ideology, total resources, votes); 3) state characteristics (magnitude, total valid votes in elections for the Federal Chamber, total resources); 4) resources from the HGPE (participation in the electoral program, total time of participation in seconds, etc.); 5) financial resources (sources and origins of campaign financing, total amount raised); and 6) electoral performance. The database covers from 1998 to 2022, with the caveat that electoral financing information is not yet available for 1998, and the systematization of the 2022 HGPE is currently being conducted by DOXA.
Database Description – Programs

As previously mentioned, the database on the programs contains information about each appearance of the candidates in the HGPE. For example, the candidates’ appeals are among the variables collected and systematized. To illustrate the uses of the database, Figure 4 cross-references the appeal to the defense of minority groups (APE4) with the election year. The result shows that this type of appeal is rare among candidates (appearing in only 1.8% of the programs), yet it varies over time. In 2018, for instance, the value equals 4.3% (40 out of 926). This difference is statistically significant (p-value < 0.001) based on the application of the Chi-Square test. This data may indicate the increased incidence of themes related to descriptive representation in the 2018 polarized election context (Borges, Vidigal, 2018).
Figure 4
Appeal to minorities incidence, by election

![Figure 4](image)

Source: authors’ own work.

Figure 5 displays the same test, but it tests the association between political appeal (APE3: Political/partisan/ideological: Does the candidate make appeals related to specific party platforms, highly ideological discourse? (Yes/No)), and the political parties. For illustrative purposes, we only considered the major parties (those accounting for over 50% of the programs). In the cases of the Workers’ Party (PT – Party 13) and the Brazilian Democratic Movement (MDB – Party 15), the observed frequency of political appeals – 602 and 417, respectively – is greater than the expected frequency of 524 and 342, respectively (Chi-squared test). In the case of the PT, this kind of result is in accordance to the literature (Dias, 2013), which suggests that PT candidates tend to evoke the party’s image in their campaigns. In the MDB’s case, it is also important to consider that the party had a strong presence in the state of Rio de Janeiro, having governed over it for three terms.
Figure 5
Incidences of political appeal by party

Source: authors’ own work.
Key: party numbers: 11 (Progressive Party – PP); 12 (Democratic Labor Party – PDT); 13 (Workers’ Party – PT); 15 (Brazilian Democratic Movement – MDB); 22 (Republic Party – PR/Liberal Party – PL); 25 (Party of the Liberal Front – PFL/Democrats – DEM); 50 (Socialism and Freedom Party – PSOL).

Database Description – Candidates

The candidate database joins information on the appearance time in the HGPE, financial resources in the campaign (according to various sources and origins), and electoral performance.

Figure 6 shows the Pearson correlation between the sum of candidates’ time (in seconds) (a) and the sum of their campaign financing (b). The correlation becomes stronger over time: 0.45 (2002); 0.61 (2006); 0.61 (2010); 0.69 (2014); and 0.72 (2018)\textsuperscript{10}. What this data may indicate is that there is a convergence process between time and money. If in 2002, candidates had more time in the HGPE and not necessarily as many financial resources (or vice versa), this relationship stabilizes over time. One plausible hypothesis is that over time, the amount of financial resources allocated by parties to candidates has grown (Mancuso, 2020), and as a result, the HGPE distribution strategy “meets” the distribution of financial resources. However, this dynamic deserves further theoretical and empirical exploration.
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**Figure 6**
Correlation between the sum of time in the HGPE (in seconds) and the sum of campaign finance

![Graph showing correlation between HGPE total time and campaign financial resources over different elections]

*Source: authors’ own work.*

Figure 7 demonstrates the difference between those elected and those not elected to the Chamber of Deputies in Rio de Janeiro in terms of appearance time in the HGPE (seconds, after logarithmic transformation). The figure indicates that there is a difference between time and electoral success, but this difference decreases over time. In 2002, for example, elected candidates had an average of 198 seconds in the HGPE, while those who lost had an average of 42 seconds – a difference of 156 seconds. In 2018, this difference dropped to 25 seconds (elected candidates having 30 seconds and defeated candidates having five).
Finally, Figure 8 shows the differences between the result and the sum of financial resources in the campaign (in log). There are also significant differences between the fundraising capacity of elected and defeated candidates in the five elections considered herein.

Source: authors' own work.

**Figure 7**
Difference in HGPE time (log) between elected and non-elected candidates, by year

**Figure 8**
Difference in the sum of campaign resources (log) between elected and non-elected candidates, by year

Source: authors' own work.
Final remarks

The main objective of this technical note has been to describe the process of collecting information and constructing two databases on the variations in the use of the HGPE among candidates for the Chamber of Deputies in the state of Rio de Janeiro.

First, we demonstrated the importance of the HGPE for understanding campaign strategies and their outcomes in Brazil. Second, we described the process of collecting information and systematizing two databases. The first focuses in the HGPE programs as the unit of analysis and includes several variables that can be useful in research on campaign strategies, connections between parties and candidates, the types of appeals the latter make at election time, among other topics. The second database cross-references information from the HGPE with other data on candidates that allows for additional inferences.

Finally, in the section entitled “Database Description – Programs” and in the section “Database Description – Candidates” of this note, we provide some examples of how the collected information can be used in empirical analysis in the Social Sciences. The objective with the publication of these databases is to help solving research problems in various areas (Borba, Cervi, 2017; Borba, Dutt-Ross, 2022; Borba, Veiga, Martins, 2018; Cervi, 2011; Dias, 2020; Dias, 2013; Janusz, Campos 2021; Mancuso, 2015).

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Notes

1. The acronym HGPE stands for Horário Gratuito de Propaganda Eleitoral. Brazilian electoral legislation forbids parties and candidates from purchasing broadcast media access. Instead, it mandates that radio and TV networks dedicate time twice a day (including evening TV prime time) for electoral propaganda.

2. There are 9,433 programs, while the database contains 9,439 observations in the bank: 6 insertions in 1998 that are in the bank came without information.

3. The distribution is as follows: 1998 - 248; 2002 - 358; 2006 - 392; 2010 - 295; 2014 - 591; 2018 - 319. The sum of participants each year is 2,203 because some of the 1,774 candidates took part in the HGPE in more than one election.

4. 1.5% of valid votes for federal deputies across Brazil and at least 9 states, with a threshold of 1% in 2018; 2.0% of valid votes for federal deputies across Brazil and at least 9 states, with a threshold of 1% in 2022; 2.5% of valid votes for federal deputies across Brazil and at least 9
states, with a threshold of 1.5% in 2026; 3.0% of valid votes for federal deputies across Brazil and at least 9 states, with a threshold of 2% in 2030.

5. Complete information is available in the appendices.

6. The information on financing, electoral performance, and candidate characteristics was merged between an original database on candidacies for the Chamber of Deputies in Rio de Janeiro and bd_doxa_programas_HGPE using two identifiers: year and candidate number on the ballot. The candidate's number was used as the identifier because it is unique in the same state.

7. All values have been adjusted for the Brazilian Extended National Consumer Price Index (IPCA) of December 2022.

8. i1. Pragmatic: Does the general appeal of the advertisement involve mentioning the candidate's proposals and promises for the position? (Yes/No); i2. Emotional: Does the candidate make an emotional appeal, seeking to create empathy or compassion regarding a particular issue in the viewer? (Yes/No); i3. Political/partisan/ideological: Does the candidate make appeals related to specific party platforms or employ highly ideological discourse? (Yes/No); i4. Does the candidate make an identity-based appeal, advocating for a specific minority? (Yes/No).

9. The expected value is 16.

10. All relationships are statistically significant at the 5% level.
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