Selective Peace: Decentralization of Crime after the Implementation of the UPP Policy

Thayná Bitencourt Cabral\textsuperscript{a}, Maria Viviana de Freitas Cabral\textsuperscript{a,b}, Joilson de Assis Cabral\textsuperscript{b}

\texttt{thayna.cabral@gmail.com, mvivianafreitas@gmail.com}

\textsuperscript{a) Programa de Pós-Graduação em Desenvolvimento Territorial e Políticas Pública, Universidade Federal Rural do Rio de Janeiro
\textsuperscript{b) Departamento de Ciências Econômicas, Instituto de Ciências Sociais Aplicadas, Universidade Federal Rural do Rio de Janeiro

Resumen

El crimen es un problema complejo de naturaleza social, política y económica que resulta del desorden de las relaciones sociales en el territorio. Para reducir su impacto, el gobierno estatal de Río de Janeiro implementó la política de seguridad pública de la Unidad de Policía Pacificadora (UPP) en 2008. Las UPPs apuntan a resumir los territorios dominados por el tráfico de drogas, asegurando la proximidad entre Estado y población a través de la entrada de la policía y los programas sociales del estado de Río de Janeiro en estas áreas. Sin embargo, se argumenta que la política no tenía el alcance de todo el estado de Río de Janeiro, solo se implementaba en algunos territorios dominados por el narcotráfico. Por lo tanto, verificase, cuáles fueron los parámetros de decisión de los territorios que recibieron la política de las UPPs y si causó efectos secundarios o migraciones de delitos a otros territorios del estado. Para observar esto, se analizará la variación de las tasas de homicidios en las ciudades de Río de Janeiro después y antes del Programa UPP utilizando las herramientas de Análisis Espacial de Datos Exploratorios (ESDA). De hecho, hay evidencias de la existencia de migración criminal entre los municipios en el estado de Río de Janeiro.

Palabras-clave: crimen; UPP; efecto desbordamiento; violencia; paz selectiva.

Abstract:

Crime is a complex social, political, and economic problem that results from the disorder of social relations in the territory. To reduce its impact, the state government of Río de Janeiro implemented the public security policy of the Pacifying Police Unit (UPP) in 2008. The UPP aims at reducing the territories dominated by drug trafficking and ensuring the proximity between State and population through the entrance of the police and state social programmes in these areas. However, it is argued that the policy did not reach the entire state of Río de Janeiro, but it was implemented in some territories dominated by drug trafficking. Therefore, the parameters of decision of the territories in which the policy of the UPP was applied and possible side effects or migrations of crimes to other territories of the state have to be verified. To observe this, it will be analyzed the variation of homicide rates in the cities of Río de Janeiro after and before the UPP Program using the Exploratory Spatial Data Analysis (ESDA) tools. In fact, there is evidence of the existence of criminal migration among municipalities in the state of Río de Janeiro.

Keywords: crime; UPP; spill-over effect; violence; selective peace.
Introdução

The 1980s is characterized by the rise in global drug trade. From this, many of Rio de Janeiro's favelas were invaded by traffickers who came to control almost every aspect of economic and social life. Drug trafficking was structured from the territorial control of the favelas to the strengthening of the illegal drug trade. The dispute over the territory between the different criminal factions, and/or between the police, increased exponentially the number of homicides and introduced the need for weapons of high power of destruction (BANCO MUNDIAL, 2012).

In addition to raising rates of lethal crime, the lack of state control in terms of land-use planning guarantees, allows criminal organizations to interfere in social, urban, and even territorial planning. In this perspective, crime can be understood as one of the most complex problems faced by modern society, resulting from the disorder of social relations in the territory. The state of Rio de Janeiro began the decade of 2000 with a rate of 51 homicides per one hundred thousand inhabitants, a level far above the level acceptable to the United Nations of 10 homicides per 100,000 inhabitants. This endemic crime rate has placed Rio de Janeiro as the 2nd most violent state in Brazil.

Since Brazil was announced as the venue for the 2014 World Cup with Rio de Janeiro as the chosen city for the closing ceremony of the event and the election of the city as the venue for the 2016 Olympic Games, it has become a priority to formulate and execute a public security policy of confronting and combating organized crime with a view to resumption of the territories occupied by drug trafficking. To this end, a working group formed by the state government and the private sector began discussing alternatives and solutions to the public security dilemma faced by the state. In 2008, the Rio de Janeiro state government launched an ambitious program of police proximity and disarmament called Pacifying Police Units (UPP). The UPPs aim to regain control of the territories of organized crime, disarm drug traffickers and create conditions for the social, economic and political integration of favelas in the city of Rio de Janeiro (BANCO MUNDIAL, 2012). In this perspective, the UPP was conceived and adopted in the midst of the process of transformation of Rio de Janeiro as the stage of the great international events. With the greatest national and international visibility, the UPPs project became strategic in terms of public security policy, making it the governing platform.

Between 2000 and 2010, homicide rates per 100,000 people in the state decreased by 48.6%, from 51 in 2000 to 26.2 homicides per 100,000 inhabitants in 2010 (Figure 1).
This reduction in homicide rates provided a prominent position in the national context: from the 2nd most violent state in 2000 to the 17th position in 2010.

Figure 1 - Evolution of lethal crime in Brazil, in the Southeast region and in the state of Rio de Janeiro, from 2000 to 2010.

In function of the reduction in crime observed in the last decade and the high visibility of the Program, the Government of the state of Rio de Janeiro points to the implementation of the UPPs initiated in the late 2000s as the main factor responsible for reducing the number of homicides. Faced with this, the UPPs became object of research, however, there are few studies with the aim of estimating the effect of the UPPs on crime considering the territory and its surroundings. Objectifying to contribute to the literature, this paper aims to analyze the spatial distribution of crime in the state of Rio de Janeiro in ex ante and ex post periods to the implementation of the UPP using the Exploratory Spatial Data Analysis (ESDA) tools. The hypothesis supported here refers to possible spillovers effects of the drug traffic to many others regions of the state increasing their crimes rates. In the others words, when the police make hard for the drug trafficking in the regions of the UPP, it happens a migration of crime to other regions of the state. The results of this paper evidence the existence of crime migration among municipalities in the Rio de Janeiro state.

In addition to this introduction, the present work is arranged in the following way: in chapter 2 the UPPs are portrayed from the panorama of localism, since the discourse of city marketing was preponderant for the conduct of this policy, which seems to have prioritized geostrategic spaces related to megaevents that occurred in Rio de Janeiro. Chapter 3 is dedicated to the methodological description of the Exploratory Spatial
Data Analysis (ESDA). The chapter 4 verified the relation of the local politics from the UPPs with the variations in the spatial dynamics of crime in the state of Rio de Janeiro, demonstrating the criminal migration that occurred in the drug trade.

The territorialization of UPPs and the metropolization of crime in Rio de Janeiro

The Pacifying Police Units (UPPs) are part of a project of the State Department of Public Security of the State of Rio de Janeiro, created in 2008, to institute community police in favelas as a means of recovering territories occupied by criminal groups in those localities and to "pacify" the areas (CARDOSO et al., 2016). Pursuant to Decree 45.186 of March 17, 2015, which regulates the Program, UPPs aims to recover territories under the control of illegal armed groups, to restore the legal and legitimate monopoly of force by the State and to reduce crime violent, especially the lethal one (COELHO and PROVENZA, 2016). Therefore, the guidelines of the Program were elaborated in accordance with the principles of the Proximity Police, a concept in addition to the community police for having its strategy of action based on the partnership between the population and public safety institutions.

Currently, the State of Rio de Janeiro has 38 UPPs, of which 37 are located in the capital, covering approximately 264 territories. The current police force of the UPPs is 9,543 policemen (UPP, 2017). The spatial distribution of UPPs can be checked in Map1.

Because the UPP is focused on eliminating hot spots from drug trafficking, the formulation of the Program was based on the spatial understanding of localism. In other words, the UPP does not seek to encompass the issue of security from a vision of the metropolis as a whole (HARVEY 1996; SOUZA 2000, 2004, 2005; BRANDÃO, 2012), but focusing on selective local interventions (FERNANDES JUNIOR, 2016). Thus, it is valid to argue that the UPPs' approach consists in the "selectivity" of spatial dynamics reproduced by the choice of predetermined territories for their application. 

There was, therefore, no intention to extinguish crime in all the territories that set the hot spots in Rio de Janeiro, as proposed by the spatial dynamics theories of crime. These issues become explicit when verifying that the UPPs are located in the city of Rio de Janeiro, the state metropolis (Map 1).
The UPPs can be understood as a public security policy aimed at the pacification of only a few previously selected territories, in which pacification is understood as "selective peace" because it has been directed to the places surrounding the megaevents (NERI, 2011; MALAGUTI, 2012; FERNANDES JUNIOR, 2012; BARREIRA, 2013). The spatial dynamics of the crime was marked by the formation of a public safety belt that provided the "pacification" of areas that preponderate to the city of Rio de Janeiro, such as the Maracanã stadium and other locations that had relations with the megaevents hosted by the city of Rio de Janeiro¹, as can be observed in Map 2 (NERI, 2011, FERNANDES JUNIOR, 2012, BARREIRA, 2016, NASCIMENTO and SILVA, 2016).

Through the visual inspection of Map 2, it is feasible to argue that the choice of communities where the UPPs would be implemented was based on the megaevents that the city would receive. In this context, the assertion that the UPPs were a public security program for the fight against crime in the state of Rio de Janeiro aimed at reducing the impact of drug trafficking in the favelas of Rio de Janeiro should be evaluated with caution. Put differently, there are indications that the UPPs were not planned for the restoration of public security and, therefore, for the reordering of the territory in a global way (FERNANDES JUNIOR, 2012).

In this context, the politics of localism includes the justification for receiving the megaevents that provide visibility to the city, and thus, a higher level of investment. However, the inflow of capital is only possible if the receiving environment allows a more pleasant and secure locus for the receipt of investments (HARVEY, 1996; BOTELHO, 2004; BRANDÃO, 2012; BARREIRA, 2013). These new international trends are highlighted by Pereira (2003) from the creation of incentives through (i) material landscape. That is, the city recreates itself, making possible new tourist meanings, composing a process of constant transformation. In this way, the discourse of city marketing, or localism, seeks to institute a means of "promoting" and "selling"
the city (HARVEY, 1996; BOTELHO, 2004; FERNANDES JUNIOR, 2012) in order to increase investments, reserves and jobs.

The politics of the UPPs was therefore used as a program for the reproduction of capital and not as a policy focused on the social (BOTELHO, 2004). Business sectors linked to the oil economy, real estate capital, tourism, communications and services in general gradually joined the UPP. This support took different forms as financial contributions for the maintenance and logistical support of the UPP. The private initiative realized that with the pacification, the investments made in these communities would open access to new consumer markets. In addition, the potential for training workers in these areas for sectors of the booming economy, such as tourism, industry and services, was visible (BANCO MUNDIAL, 2012).

**Methodological aspects and database**

*Exploratory Spatial Data Analysis*

According with Ertur and Le Gallo (2003), the Exploratory Spatial Data Analysis (ESDA) is a set of techniques aimed at describing and visualizing spatial distributions, identifying atypical locations or spatial outliers, and detecting spatial association patterns and clusters. ESDA techniques usually take the form of graphs, maps and global measures or spatial association sites (ARBIA, 2006). From the ESDA, it is possible to extract measures of global and local spatial autocorrelation, investigating the influence of spatial effects through quantitative methods.

Given the ESDA techniques, it is necessary to verify if the spatial data present randomness or spatial dependence, that is, if the values of a characteristic in a region are independent or not of the values of this characteristic in the neighboring regions. Spatial autocorrelation statistics serve this purpose. In general, spatial autocorrelation can be defined as the coincidence of similarity of values with similarity of localization (ANSELIN, 1999; ERTUR and LE GALLO, 2003). The best known spatial autocorrelation coefficient is the Moran $I$ statistic. It should be noted that the spatial arrangement of the observations, expressed by the spatial weights matrix $W$, is important for the computation of this statistic.

The local Moran $I$ statistic is a spatial autocorrelation coefficient resulting from the product between the standardized interest variable $z_i$ and the spatial lag of the variable $z_i W z_i$. The local Moran $I$ can be represented as follows:

$$I_i = z_i W z_i$$
For each observation $i$ is calculated an $I$, which corresponds to a decomposition of the global autocorrelation indicator in the high-high (AA), low-low (BB), high-low (AB) and low-high (BA).

To make it more plausible and even useful, spatial association patterns can be visualized through, for example, the cluster map. The cluster map is the combination of the Moran scatter map and the LISA significance map. The Moran scatter map is the representation of the results for the local Moran $I$, indicating the location of the observations according to the four categories of association AA, BB, AB, BA whereas the map of significance LISA represents only the observations that were considered significant, classified according to their probability value.

**Descrição da base de dados**

To verify the migration of drug trafficking, and thus, the migration of crimes, will be used the data of homicide per hundred thousand inhabitants in the years of 2007 and 2014. These will be obtained, through the Sistema de Informações de Mortalidade (SIM) of the Secretaria de Vigilância à Saúde (SVS) of the Ministério da Saúde (MS) available on the website of the Departamento de Informática do Sistema Único de Saúde (DATASUS).

The homicide rate per hundred thousand inhabitants ($crime_i$), is defined as the ratio between the number of homicide deaths (deaths due to aggression) and the total population living in a given municipality, per year, per hundred thousand inhabitants. Deaths from homicides correspond to codes X85 to Y09 from chapter XX - External causes of morbidity and mortality - from the 10th revision of the International Classification of Diseases (ICD-10), following the classification proposed by the Ministério da Saúde. The purpose of the rate per hundred thousand is to allow comparability between sites with different population sizes and neutralize population growth, allowing the comparison in the medium and long term. Formally, the homicide rate per hundred thousand inhabitants is calculated as follows:

$$crime_i = \frac{\text{Number of resident deaths due to aggression}_i}{\text{Total resident population}_i} \times 100,000$$

The use of this variable as a proxy for violent crime is justified by the fact that the intentional homicide rate seems to be the best measure, since it has a more accurate measurement of the occurrence of crimes, because of the high rate of underreporting in the other types of crimes. This is due to the fact that the aggression underreporting rate of deaths is significantly low, because it implies loss of human life and,
consequently, mandatory registration at the Instituto Médico Legal (JUSTUS and KASSOUF, 2008)

Cerqueira and Lobão (2004, p.382, free translation) point out that data from records of Brazilian police occurrences are frequently with the follow problems:

- [...] great underreporting and the difference between degrees of underreporting of various types of theft and robberies;
- [...] possible differences of underreporting and reliability of data in the states studied;
- [...] interruption of series, change of series methodology and lack of homogeneity of interregional data.

In this way, will be used the homicide per hundred thousand inhabitants. The ex-ante period was defined as the year 2007 while the ex-post period refers to the year 2014. The choice for the this period rests on the fact that the Program of the Pacifying Police Units begin in 2008, being possible to observe the spatial variations of the crime that occurred after six years of the current program.

**Selective peace and spatial segregation: the UPPs and the reorganization of crime**

In order to understand the spatial dynamics of crime in the municipalities of the state of Rio de Janeiro, Map 3 shows the decrease in crime occurring between 2007 and 2014. The spatial distribution of the homicide rate in this period shows that the metropolitan region of Rio de Janeiro was composed of municipalities with significant crime rates in the year 2007, while in 2014 a decrease in homicide occurrences in this region can be observed. This reversal of lethal crime rates in the state of Rio de Janeiro during the period considered provides arguments to the Government of the state of Rio de Janeiro to credit the reduction of crime to the implemented security policy. For the State, the UPPs were responsible for this decline in homicide rates per hundred thousand inhabitants.

However, it should be noted that the reduction of crime observed in the state of Rio de Janeiro was not homogeneous among all the municipalities of Rio de Janeiro during the analysis period considered by this study. There has been a change in the dynamics of crime in the state: municipalities in the metropolitan region have relatively reduced their lethal crime rates over the period when compared to the municipalities of the interior of the state and, mainly, the municipalities of Norte Fluminense and Costa...
Verde. In this scenario, there are indications of migration of crime among the municipalities of Rio de Janeiro.

It is worth considering that the idea of spatial dependence between regions is precisely to assume that phenomena that occur in the neighborhoods of a given region, such as socioeconomic determinants of crime and public security policy initiatives, tend to have a strong influence on the spatial dynamics of the region's criminality under analysis through overflowing effects. Therefore, the reduction of crime observed during the period considered should be analyzed with caution, especially with regard to attributing such a declining trajectory of lethal crime to the success of the state public security policy.

Map 3: Maps for the homicide rate per hundred thousand inhabitants, level of crime in the municipalities of the state of Rio de Janeiro, 2007 and 2014.

Considering the UPPs as a territorial policy aimed at the elimination of drug trafficking in a "selective" territory and the restructuring of state power in it, the effects of this type of public security policy must be evaluated in a context of possible restructuring of the crime. The increase in state power, thus reducing the power linked to the drug trafficker
sugges a migration of crime to another territory in which drug traffickers can impose their territoriality.

In this context of reorientation of drug traffickers in space, it may be pointed out that the "pacified territories" made possible an increase of security in the areas of the Center, Tijuca, Zona Sul and Barra da Tijuca, regions of the city of Rio de Janeiro that received the UPPs. However, this "pacification" was given under the cost of dominating these in other areas of Rio de Janeiro (FERNANDES JUNIOR, 2012, 2016), as can be seen in Map 3.

According with Barreira (2013) the UPPs provided an increase in spatial segregation, since the problem of drug trafficking was not solved (being taken to areas less attractive to the Rio de Janeiro city marketing project). The crime was only restructured. In discussing this criminal reorganization, Malaguti (2010) problematizes that in addition to the UPPs not being created to assist the population of the "pacific" favelas, the Program still composes an element of great relevance for crack entry into the drug trade in Rio de Janeiro. Before the implementation of the UPPs, the Comando Vermelho faction prohibited the crack trade (SOUZA, 2000). At the moment the state attempted to retake the dominated territory, this faction was the main hit by the geostrategic "selection" of the UPPs and, with that, enabled crack entry.

In addition, Fernandes Junior (2012, 2016) calls for the transfer or re-creation of drug trafficking power to other non-pacified territories such as the metropolization of crime. The reordering of crime makes it possible to create power relations in these territories. However, a particularity with regard to crime in the state of Rio de Janeiro refers to the fact that the migration of crime and, consequently, traffickers from pacified territories from the implantation of UPPs is only possible for other territories under the domain of the same criminal faction. Therefore, migration of crime in the state of Rio de Janeiro does not occur in terms of geographical proximity, but in terms of similarity of criminal faction.

This observation was systematized by Fernandes Junior (2016) who argues that the displacement of criminals associated with the implementation of UPPs is a logical development, in which factions expelled from their territories tend to migrate to the nearest places, where are dominated by the same faction. This fact can be observed in Map 4 that explains the migration of crime after the UPPs.

According to the analysis in Map 4, the main migratory flows of crime resulting from "pacification" were associated with a more geographic proximity with the prerogative to belong to the same criminal faction. Moreover, it can be observed that more important
than the geographic distance, the reordering of the criminality was based on the perception of belonging of the same criminal faction. Thus, it is understandable to migrate crime beyond the municipality that receives the UPPs. They can be identified as municipalities that are recipients of migrations of "pacified" crime in Rio, the cities located in the Baixada Fluminense and in the Lagos Region.

**Map 4: Migration and Metropolization of Crime**

Source: Fernandes Junior (2012)

Therefore, this migration or even reorganization of the crime implied in the decentralization of the traffic of Rio de Janeiro, which has expanded to new territories, redefining the areas of drug trafficking hot spots (MALAGUTI, 2010; FERNANDES JUNIOR, 2012; BARREIRA, 2013). Faced with this, it is possible to challenge the efficiency of the UPPs in controlling crime, since it was preponderant for the modification of the spatial dynamics of drug trafficking and not for the effective control of crime.

**Final considerations**

The 1980s is marked by the rise in global drug trade. The abrupt rise in lethal crime observed in the state of Rio de Janeiro can be understood in the context of a dispute over territory between the different criminal factions, and / or between the police (BANCO MUNDIAL, 2012). Thus, crime becomes one of the most serious and complex problems faced by society in Rio.
From the announcement of Rio de Janeiro as one of the host cities of the 2014 World Cup and the election of the city as the venue for the 2016 Olympic Games, it became a priority to formulate and execute a public security policy to combat and combat organized crime with a view to the resumption of the territories occupied by drug trafficking. In 2008, the Rio de Janeiro state government launched an ambitious program of police proximity and disarmament called Pacifying Police Units (UPP). With the reduction of homicide rates per 100,000 inhabitants in the state by 48.6% between 2000 and 2010, the Government of the state of Rio de Janeiro started to credit this reduction to the success of the UPPs, after which Rio de Janeiro from the 2nd most violent state in 2000 to the 17th position in 2010.

However, when analyzing in detail the declining trajectory of lethal crime rates in the period 2007 to 2014, ex ante and ex post periods to the implementation of the UPPs, respectively, it was observed that the resumption of the territories by the State and the consequent process of pacification was linked to the regions that would receive the mega-sport events. Thus, true belts of public security were formed around the undertakings destined to carry out the mega-events.

Even if the assertion of a "selective peace", which would ultimately result in the reduction of lethal crime, the observation of a possible migration or restructuring of the crime throughout the territory of the state of Rio de Janeiro became evident. Drug traffickers expelled from the pacified regions were reorganized into other territories whose proximity was defined by belonging to the same criminal faction.

Thus, this migration or even reorganization of the crime implied in the decentralization of the Rio traffic to territories, redefining the hot spots of drug trafficking. Therefore, it is possible to challenge the efficiency of the UPPs in combating and controlling crime.
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