



# Racial Discrimination in Access to Justice: Evidence from Brazil

**Bruno Truzzi**

University of Campinas (Unicamp), Brazil

**Viviani S. Lirio**

Federal University of Viçosa (UFV), Brazil

**Leonardo C. B. Cardoso**

Federal University of Viçosa (UFV), Brazil

**Daniel R. C. Cerqueira**

Institute for Applied Economic Research (IPEA), Brazil

**Danilo S. C. Coelho**

Institute for Applied Economic Research (IPEA), Brazil

## Abstract

In Brazil, young Black males are far more likely to experience criminal violence (e.g., homicide, police lethality and assault) than young White males. However, race might also affect the ex-post scenario; that is, Blacks and Whites may go to the police seeking solutions against criminal violence with different probabilities. In this paper, we identified and quantified the sources of the racial differential in accessing justice between Blacks and Whites in Brazil. Using microdata from the Brazilian Household Survey, we used the Oaxaca-Blinder decomposition to isolate the discriminatory component from social indicators correlated with access to justice. We found that structural attributes explain only part (around 60%) of the racial differential in accessing justice. A significant portion of the discrepancy (at least 40%) provides evidence of racial discrimination. In addition, the spatial dynamics revealed that the Northeast region of Brazil presents the most discriminatory scenario in the country, a region historically characterised by higher social inequalities and violent mortality.

**Keywords:** Access to justice; violence; racial discrimination; probability; Oaxaca-Blinder decomposition.

## Introduction

Access to justice is a fundamental right guaranteed by the Universal Declaration of Human Rights (UDHR) and one of the 17 goals of the 2030 Agenda for Sustainable Development (UN 2023; UN General Assembly 1948). However, in countries like Brazil, more than 130 years after the abolition of slavery, the dream of equality remains distant. Historically, Blacks<sup>1</sup> have been overrepresented among those with lower levels of income and education (Hasenbalg and Valle-Silva 1999). The consequences of this historical context persist with higher rates of illiteracy and poverty and even the underrepresentation of Blacks in politics and in management positions in the labour market, compared to Whites (Instituto Brasileiro de Geografia e Estatística [IBGE] 2019). Revealing the extreme limits of the normative and socioeconomic barriers faced by Blacks in Brazil, studies have revealed that this population is also more exposed to violence and mass incarceration and is overrepresented among victims of homicide, police lethality, assault and in the prison system (Centro de Estudos de Segurança e Cidadania [CESeC] 2020; IBGE 2010; Instituto de Pesquisa Econômica Aplicada—Fórum Brasileiro de Segurança Pública [IPEA-FBSP] 2021; Sistema de Informações do Departamento Penitenciário Nacional [SISDEPEN] 2021). As Chilton and Versteeg (2017) argue, the constitutionalising of social rights related to education and health is, on its own, insufficient to increase government spending



Except where otherwise noted, content in this journal is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/). As an open access journal, articles are free to use with proper attribution. ISSN: 2202-8005 (Online)

in these areas. In general, something else is required to make social rights to extend beyond the Constitution. It is no different in Brazil where some social rights exist only in the Constitution.

In relation to racial discrimination, in the most studied economic effects, race explains gaps in income, wages, labour market access and various other assets (Adorno 1996; Hasenbalg 1979, 1996; Hirata 2017). Race is also a central factor in the empirical literature on crime (Cano 2010; Vargas and Amparo-Alves 2010). In Brazil, the probability of victimisation by homicide and physical assault is 129% and 39% higher for Black people than White people, respectively. This differential is even more remarkable when comparing young Black males to their White counterparts (Truzzi et al. 2022). In addition, race might affect the ex-post scenario: Blacks and Whites may go to the police seeking solutions against criminal violence with different probabilities. In 2009, among the 2.5 million victims of physical assault who did not seek police assistance in Brazil, either because they did not believe in or feared the police or feared reprisals, approximately 65% were Black and 35% were non-Black (IBGE 2010). This discrepancy in reporting has received considerably less attention in the international empirical literature on crime.

This paper sought to address this gap by identifying and quantifying the sources of the racial differential between Blacks and Whites in accessing justice using Brazil as a case study of the Global South. To do this, this study used microdata from the special supplement on victimisation and access to justice from the 2009 *Pesquisa Nacional por Amostra de Domicílios* (PNAD; the National Household Sample Survey). It then used the Oaxaca-Blinder decomposition methodology to isolate the discriminatory component from the socioeconomic indicators correlated to access to justice.

This study made two main contributions to the literature. First, it analysed the conditions of access to justice from the perspective of victims of violent crimes (theft, robbery and physical assault). Second, in addition to identifying the sources of the racial differential between Blacks and Whites in accessing justice, it isolated and quantified the discriminatory component by applying the Oaxaca-Blinder decomposition methodology. This enabled us to identify the contribution of each of the individual, socioeconomic and location characteristics to the racial discrepancies in accessing justice.

Our findings showed that compared to Whites, Blacks had a lower chance of accessing justice in Brazil; this difference is as substantial as their greater probability of suffering criminal violence, which is well known. Even when controlling for individual, socioeconomic and location characteristics, there is a gap in access to justice that is explained by race. The causes of this phenomenon are not directly addressed in this study. However, we provided empirical evidence of the lack of access to justice for Black people—a significant shortcoming in any democratic society trying to equalise social rights.

The following section explores the theoretical literature that supports our model's empirical specification. The third section presents the methodology adopted in this study. The last two sections comprise the results, discussion and conclusions.

## Theoretical Framework

Access to justice has been recognised as a human right and a constitutional principle in democratic legal systems. This right is rooted in two important documents. First, Article 8 of the UDHR, which was approved by the General Assembly of the United Nations (UN) in 1948, declares that all individuals have the right to be protected by competent national courts against any acts that violate their fundamental rights (UN General Assembly 1948). Second, Article 8 of the 1969 American Convention on Human Rights (Pact of San Jose of Costa Rica) also grants every individual the right to be heard by a competent, independent and impartial judge or court (Brazil 1992). Brazil is a signatory to both documents. Further, the 1988 Brazilian Constitution ensures access to justice for everyone in its territory, as expressed in the 'principle of infeasibility of jurisdiction'. Under this principle, all Brazilians and foreigners residing in the country, without distinction of any kind, must have their rights protected by the judiciary (Brazil 1988: Article 5).

As a fundamental right, access to justice is complex due to the breadth and depth of the issues it covers. The principle of access to justice synthesises two key attributes of the legal system under the supervision of the state, which must ensure that citizens have the power to plead their rights and resolve their demands. These two key attributes are (i) isonomy regarding access to this system; and (ii) a system that acts to provide fair solutions, both individually and collectively. In this sense, as a fundamental dimension of human rights, access to justice comprises a dimension that is broader in scope than access to the judiciary (Cappelletti and Garth 1978).

According to the institutionalist approach, an improved institutional environment ensures reduced transaction costs and better political, economic and social performance (Gala 2003). A structurally consolidated judicial system is a key component of this institutional superstructure and contributes to national economic growth (Sherwood, Shepherd and Souza 1994). This macroanalytical perspective implies that access to justice is a mechanism that satisfies a condition for attracting investment and supporting national economic growth by offering legal security to economic agents. Highlighting the social aspect, Sen (1999)

contends that the government should consolidate and even expand real freedoms for its citizens. The full exercise of the rights of citizenship is protected by stimulating national economic growth and the development process.

From a microanalytical perspective on access to justice, Anderson (1999: 18) argues that the ability of individuals to benefit from available legal resources is governed by two dimensions: (i) 'financial resources'; that is, the costs and expenses inherent to the judicial process, such as individual trade-offs when initiating lawsuits and the inability to earn income from economic activities; and (ii) 'institutional skill'; that is, the capacity of individuals to understand and use the justice apparatus.

Combining the macro and microanalytical aspects, Bruce et al. (2007) argue that overcoming social inequalities requires a consolidated legal structure. The authors proposed the idea of 'legal empowerment', highlighting the state's action in consolidating rights and creating opportunities, especially for the poorest social classes, to expand capacity and access to justice. As such, legal empowerment is a means to overcome poverty and marginalisation (Bruce et al. 2007: 29). This aspect is also highlighted by the 2010 Global Programme Annual Report (United Nations Development Programme [UNDP] 2011), according to which the deterioration of the justice system, due to the discrimination of political and economic power, is an obstacle to be overcome so that institutionally marginalised populations can reach equal conditions of access to justice.

In this sense, theoretical approaches in the field of law and economics share the insight that socioeconomic and institutional dynamics can reproduce and perpetuate the discrimination and marginalisation of certain social groups. Thus, it is vital to consider how historical processes, such as the abolitionist model of slavery and its association with patriarchal and racist ideologies, influenced the socioeconomic marginalisation and social exclusion of the Black population in Brazil (Coelho 1978; Langfur 2006; Paixão 1990; Telles 2014). This historical context underlies the remarkable disparities between Blacks and Whites in terms of employment, income, education, access to justice and vulnerability to lethal violence (Adorno 1996; Hasenbalg 1979, 1996; Valle-Silva 1980; Vargas 2005).

Several studies on the economics of education and labour economics provide evidence of this reality. Focusing on the case of Latin America, Berhman, Gaviria and Szekely (2001) identified the intergenerational educational persistence of schooling levels between parents and their children. Black, Devereux and Salvanes (2005) found a significant causal relationship between a mother's education and that of her children but did not find any significant causal relationship between a father's education and that of his children. In terms of Brazil, a possible interpretation of these results is that the persistence of conservative ideals associated with the phenomenon of racial discrimination (e.g., machismo and a patriarchal culture) contributes to the perpetually lower educational levels of Blacks. The mechanism underlying this phenomenon includes the transfer of responsibility for teaching children to mothers with little education (Cerqueira and Moura 2013). Similarly, several studies have identified the existence of racial discrimination in the Brazilian labour market, revealing remarkable wage differences between Blacks and Whites (Campante, Crespo and Leite 2004; Hirata 2017; Soares 2000).

Given the Brazilian context of social inequalities manifested in the normative and socioeconomic barriers faced by Blacks, Oliveira Junior and Lima (2013) argue that this scenario is explained by the phenomenon of institutional racism. This stems from the collective failure of social organisations and state institutions to respond to daily demands and the diffuse and repeated actions that reinforce negative stereotypes and prejudices against Blacks, thereby maintaining racial prejudice. A very specific example of this phenomenon is the unequal treatment of Blacks and Whites by the criminal justice system and the police.

Several studies have identified the intimidating and abusive conduct by the police directed towards the Black population and the more severe sentences and penalties handed out to them by the legal system (Adorno 1995, 1996; Duarte, Alves and Freitas 2023). In addition, Black defendants in Brazil tend to face greater obstacles in accessing their rights (Ramos and Musumeci 2005). Scholars analysing police violence in Brazil have identified the racial bias of police lethality, which is also associated with factors such as social class, age and gender (Cano 2010; Vargas and Amparo-Alves 2010). They also highlight the geographic patterns of police lethality in Brazil, highlighting associations between police killings and indicators of inequality, violence, impunity, organised crime and police training (Ceccato, Melo and Kahn 2018). Institutional racism is reinforced by structural inequalities that constitute the 'Brazilian racialized regime of (non)citizenship'; Blacks are disproportionately subject to state-sanctioned violence, not only by the police but by broader social and institutional mechanisms (Vargas and Amparo-Alves 2010: 612).

The combination of racial discrimination and a racist culture or ideology that stigmatises the role of Black people in society results in their social exclusion and economic marginalisation and also perpetuates the racial stereotypes that they are violent and dangerous individuals (Coelho 1978; Misse 2007; Paixão 1990). Thus, the exclusion and marginalisation of the Black population further its criminalisation (Adorno 1996; Buckler, Unnever and Cullen 2008; Ramos and Musumeci 2005; Winant 2015). The greater frequency with which Blacks interact with the criminal justice system (Brunson and Miller 2005; Claus, Vidal and Harmon 2017; Spinney et al. 2018) and the fact that this contact is likely to be negative (Graham et al. 2020) compound the injustice experienced by Blacks compared to Whites (Buckler, Unnever and Cullen 2008; Hagan et al. 2005).

Given this context, this study sought to test three hypotheses. The first hypothesis (H1) is that Blacks are less likely to access justice than Whites. The second hypothesis (H2) is that the racial differential in access to justice is partially explained by the unequal structural conditions experienced by Blacks compared to Whites. The third hypothesis (H3) is that the racial differential in access to justice and thus its components differ between regions of the Brazilian territory.

## Methodology

### *Data and Sample*

Our data set comprised microdata from the 2009 PNAD, covering the period between September 2008 and September 2009. This survey, which was administered by the IBGE (the Brazilian Institute of Geography and Statistics), discloses general characteristics (e.g., education, labour, income and housing characteristics) of the population by major regions and federative units. Representing a probabilistic sample of households, the PNAD, which is administered annually throughout the Brazilian territory, is a stratified sample that incorporates all the aspects that define a complex sampling plan with information on approximately 0.3% of households in Brazil (IBGE 2010).

The 2009 PNAD included a supplementary questionnaire on the ‘Characteristics of Victimization and Access to Justice in Brazil’, which was designed to investigate the victimisation process (for people aged 10 years and over) for four types of crime (robbery, theft, attempted theft or robbery and physical assault). It also investigated the conditions of access to justice for individuals aged 18 years or older. In the PNAD, race is self-declared according to five categories of ‘colour’: ‘brancos’ (Whites); ‘pretos’ (Blacks); ‘pardos’ (in English, the terms Mixed or Brown could be used); ‘amarelos’ (Yellows); and ‘indígenas’ (Indigenous) (Hirata 2017; IBGE 2010). Several studies have classified Blacks and Browns as ‘Blacks’ under the assumption that given the characteristics of racial prejudice in Brazil, both are subject to racial discrimination and have similar socioeconomic characteristics across several dimensions (i.e., education, employment and income) (Duarte, Alves and Freitas 2023; Osório 2003; Telles 2014). In this article, unless explicitly indicated, the term ‘Blacks’ refers to individuals who declared themselves as Blacks or Browns in official surveys. Since this study sought to investigate the racial differential in accessing justice between Blacks and Whites, the groups categorised as Indigenous and Yellows were excluded.

Thus, our data set constituted a representative probabilistic sample of the Brazilian population aged 18 years or over who had suffered at least one of the three types of crimes (i.e., theft, robbery or physical assault) (see Table 2). Table 1 presents the explanatory notes to the 2009 PNAD concerning the definition/typification of the aforementioned crimes or those for delimiting the conditions of access to justice.

This study defined access to justice as seeking out the police and/or registering a police report at a police station (including virtual police stations) as a consequence of having been the victim of a violent situation, such as theft, robbery and/or physical assault (see Table 1). Due to the different motivations and resources required to access justice and report a crime to the police, our definition does not constitute access to justice *stricto sensu*. However, according to Article 144 of the 1988 Brazilian Federal Constitution, the police are subordinate to the judiciary, assisting in the application of the law and within the scope of state or federal justice (Brazil 1988). Thus, as a component of the judicial system, access to the police can be understood as access to justice *lato sensu*. In this sense, this article differs from the traditional approach to access to justice (Almeida and Fauvrelle 2013; Anderson 1999; Bruce et al. 2007; França, Duenhas and Gonçalves 2014).

**Table 1. Definitions/types of crimes and access to justice**

Variables	Description	Source
<b>Physical assault</b>	Bodily injury; that is, an injury whereby the integrity of the victim's body is affected by the aggressor in some way; for example, slapping the face, pushing, beating, punching, rape or sexual violence, injury caused by a firearm, use of the aggressor's body force or objects (e.g., knives, stones, wooden stumps).	<b>PNAD (2009)</b>
<b>Contacted the police (physical assault)</b>	After the last <b>physical assault</b> , the victim went to the police.	
<b>Registered a police report (physical assault)</b>	The last <b>physical assault</b> was recorded at a police station (including a virtual police station).	
<b>Theft</b>	Stealing any object from the person without using violence or threat. Usually, the person does not witness the action or is unaware of it at the time.	
<b>Contacted the police (theft)</b>	After the last <b>theft</b> , the victim went to the police.	
<b>Registered a police report (theft)</b>	The last <b>theft</b> was recorded at a police station (including the Virtual Police Station).	
<b>Robbery</b>	Stealing any object from the person by threat, use of force, or violence or any action commonly called an assault.	
<b>Contacted the police (robbery)</b>	After the last <b>robbery</b> , the victim went to the police.	
<b>Registered a police report (robbery)</b>	The last <b>robbery</b> was recorded at a police station (including the Virtual Police Station).	
<b>Access to justice</b>	Contacted the police and/or registered a police report at the police station (including the virtual police station) as a result of having been the victim of situations of violence, such as <b>theft and/or robbery and/or physical assault</b> .	<b>Own elaboration</b>

Source. Own elaboration. Information collected from PNAD (2009).

Given the lack of recent data, the 2009 PNAD constitutes the most recent large sample survey that allows the profile and motivations of users of the Brazilian Justice System to be mapped (Oliveira and Cunha 2020). Regardless of the type of access to the judiciary, around 40% of people who experienced serious conflicts did not look to the system for a solution (IBGE 2010). This suggests that a significant portion of the population is marginalised from judicial services, while a privileged few enjoy the excessive use of official justice (Sadek 2004). Using data from the 2009 PNAD, this study sought to overcome the issue of the underreporting of crimes (Coleman and Moynihan 1996; Skogan 1977) and the problem of the 'production of crime rates' by organisational institutions (Kitsuse and Cicourel 1963). Given that the PNAD data are self-reported, it is believed that the underreporting of crimes is lower than that stated in official sources and the complex sampling plan ensures the statistical validity of our data set.

All the observations maintained the weights assigned under the IBGE methodology. The resulting data set comprised 27,513 observations, which, applying sample weights, represented 12,232,981 Brazilian citizens for the period. Our empirical approach combined three sets of variables that characterise the individuals of interest; that is: (a) individual characteristics; (b) socioeconomic attributes; and (c) location characteristics. Table 2 summarises the descriptive statistics of the variables for the full sample and the subsamples of Blacks and Whites.

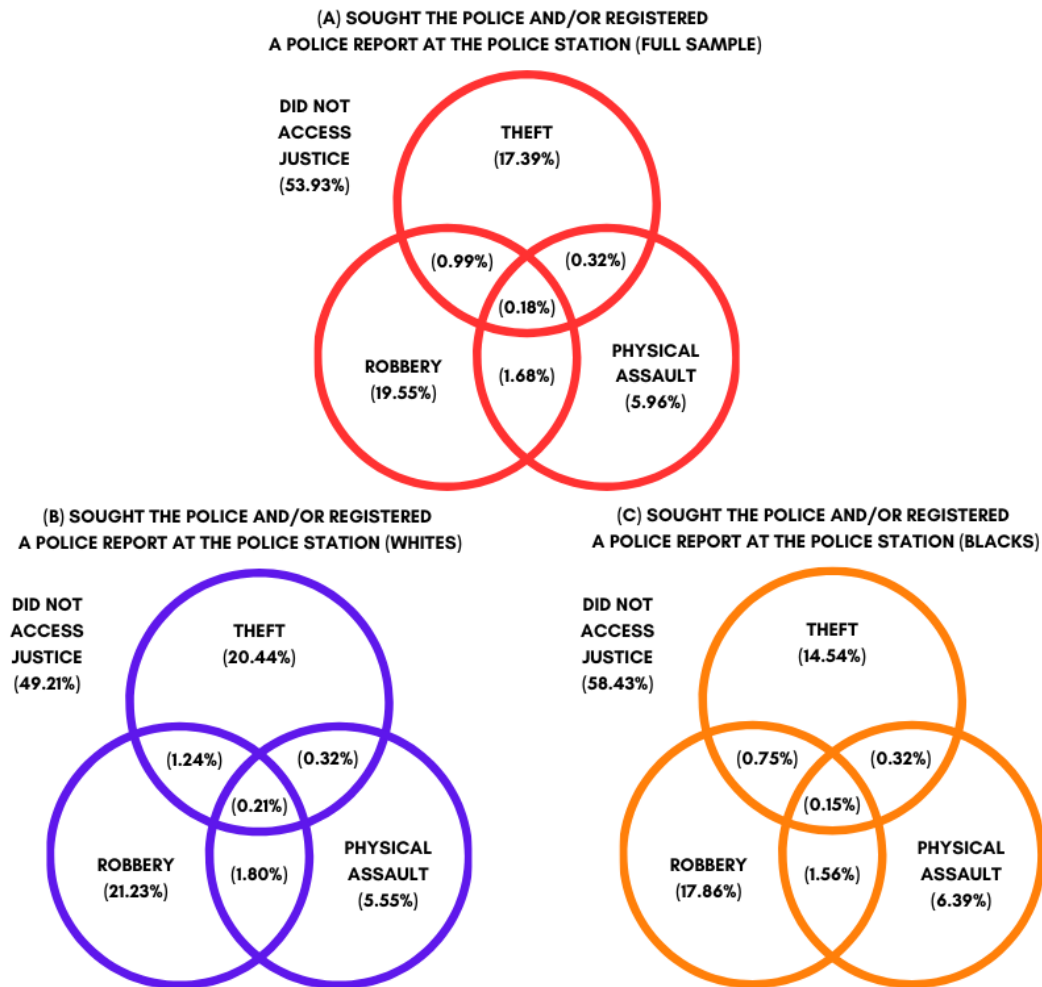
Blacks were overrepresented in groups with lower levels of education and underrepresented in groups with higher levels of education. On average, Blacks also earned half of the income of Whites. Additionally, the Black population had a higher proportion of single people, was younger and had a shorter life expectancy than the White population.

**Table 2. Description and the average value of variables**

Variables	Description	Full sample	Blacks	Whites
<b>Response Variable</b>				
<b>Justice access</b>	1 (contacted and/or registered a police report due to theft and/or robbery and/or physical assault), 0 (otherwise)	46.07%	41.57%	50.79%
<b>Control Variables (Regressors)</b>				
<b>Individual Characteristics</b>				
<b>Black</b>	1 (Black), 0 (White)	51.81%	100%	0%
<b>Woman</b>	1 (woman), 0 (man)	45.65%	44.53%	46.72%
<b>Single</b>	1 (single), 0 (married)	52.39%	56.79%	47.57%
<b>18 to 24 years</b>	1 (aged 18–24 years), 0 (otherwise)	20.85%	22.54%	19.12%
<b>25 to 39 years</b>	1 (aged 25–39 years), 0 (otherwise)	36.76%	38.78%	34.59%
<b>40 to 59 years</b>	1 (aged 40–59 years), 0 (otherwise)	31.39%	29.53%	33.43%
<b>60 years or older</b>	1 (aged 60 years/or older), 0 (otherwise)	11.00%	9.15%	12.87%
<b>Socioeconomic Characteristics</b>				
<b>Less than primary</b>	1 (up to 7 years of study), 0 (otherwise)	35.11%	41.71%	28.20%
<b>Less than secondary</b>	1 (8–11 years of study), 0 (otherwise)	45.82%	46.85%	44.93%
<b>Secondary or more</b>	1 (12 years of study/or more), 0 (otherwise)	19.07%	11.44%	26.87%
<b>Income</b>	Family's monthly income <i>per capita</i> (in R\$)	846.62	579.52	1,128.54
<b>Work</b>	1 (work), 0 (otherwise)	73.63%	73.57%	73.65%
<b>Family size</b>	Family's components number	3.36	3.49	3.22
<b>Location Characteristics</b>				
<b>Urban</b>	1 (urban area), 0 (rural area)	92.50%	90.86%	94.21%
<b>Metropolitan</b>	1 (metropolitan region), 0 (otherwise)	39.71%	36.88%	42.43%
<b>North</b>	1 (North region), 0 (otherwise)	9.86%	14.35%	5.12%
<b>Northeast</b>	1 (Northeast region), 0 (otherwise)	28.38%	38.85%	17.50%
<b>Midwest</b>	1 (Midwest region), 0 (otherwise)	8.43%	9.56%	7.20%
<b>Southeast</b>	1 (Southeast region), 0 (otherwise)	39.62%	31.49%	47.93%
<b>South</b>	1 (South region), 0 (otherwise)	13.72%	5.76%	22.25%
<b>Observations (sample)</b>		<b>27,513</b>	<b>15,370</b>	<b>11,919</b>
<b>Observations (with sample weights)</b>		<b>12,232,981</b>	<b>6,274,180</b>	<b>5,835,989</b>

Source. Own elaboration. Information collected from PNAD (2009).

Notably, compared to Whites, Blacks also had lower rates of accessing justice following incidents of criminal violence (theft, robbery and physical assault). The Black population represented just over half of Brazilians (Blacks correspond to 53.8% of the Brazilian population; IBGE 2021); however, on average, their rate of access (41.57%) to this institutional protection mechanism was 18% lower than that of Whites (50.79%). Figure 1 disaggregates the data on access to justice by types of crimes against physical integrity. Blacks sought police assistance and/or registered a police report at a police station at a lower rate than Whites for all types of crimes, except for physical assault, for which the rates are similar.



**Figure 1. Percentages of access to justice by type of crime against physical integrity for the full sample and the subsamples of Blacks and Whites (Brazil 2009)**

**Empirical Strategy**

The empirical procedure used to investigate the sources of the racial differential between Blacks and Whites in accessing justice in Brazil comprised two interrelated steps: (i) an estimation of the logit model for access to justice (to test H1); and (ii) the decomposition of the access to justice differential between Blacks and Whites using the Oaxaca-Blinder methodology (to test H2 and H3).

We investigated the sources of the racial differential in accessing justice in Brazil using the following estimated logit model:

$$p_i^g \equiv Prob[Justice\_access_i^g = 1 | X_i^g] = \frac{e^{\beta^g X_i^g}}{1 + e^{\beta^g X_i^g}} \quad (1)$$

where  $Justice\_access_i^g = [1, 0]$  estimates the probability of individual  $i$ , belonging to the racial group  $g$ , accessing justice ( $Y_i = 1$ ) in relation to the probability of not accessing this social protection mechanism ( $Y_i = 0$ ), also called the relative risk. The vector  $\beta^g$  contains the coefficients associated with the variables present in the vector of explanatory variables  $X_i^g$ . The latter vector includes three groups of regressors: (i) individual characteristics; (ii) socioeconomic attributes; and (iii) location characteristics. The  $\hat{\beta}^g$  estimators of the  $\beta^g$  parameters were obtained using the maximum-likelihood (ML) method.

The Oaxaca-Blinder decomposition technique (Blinder 1973; Oaxaca 1973) allowed us to isolate and quantify the extent to which the racial differential in accessing justice can be attributed to the explained and unexplained effects. Since the response

variable (access to justice) is binary, we determined that  $Prob(Y = 1|X) = \Phi(X, \beta)$ , assuming that  $\Phi$  is a cumulative distribution function from the logistic distribution. According to Yun's (2004) approach, the Oaxaca-Blinder mechanism allows the decomposition of nonlinear models as follows:

$$\bar{Y}^W - \bar{Y}^B = \sum_{i=1}^{i=K} W_{\Delta X}^i \left[ \Phi(\bar{X}^W \hat{\beta}^W) - \Phi(\bar{X}^B \hat{\beta}^W) \right] + \sum_{i=1}^{i=K} W_{\Delta \beta}^i \left[ \Phi(\bar{X}^B \hat{\beta}^W) - \Phi(\bar{X}^B \hat{\beta}^B) \right] \quad (2)$$

in which

$$W_{\Delta X}^i = \frac{(\bar{x}_i^W - \bar{x}_i^B) \hat{\beta}_i^W}{(\bar{x}^W - \bar{x}^B) \hat{\beta}^W}, W_{\Delta \beta}^i = \frac{\bar{x}_i^B (\hat{\beta}_i^W - \hat{\beta}_i^B)}{\bar{x}^B (\hat{\beta}^W - \hat{\beta}^B)}, \text{ and } \sum_{i=1}^{i=K} W_{\Delta X}^i = \sum_{i=1}^{i=K} W_{\Delta \beta}^i = 1 \quad (3)$$

where the vector  $\bar{X}^g$  contains the average values of the explanatory variables for each racial group  $g$  (superscript 'W' for Whites and 'B' for Blacks); the vector  $\hat{\beta}^g$  contains the ML estimates of Equation (2); and  $\bar{Y}^g$  is the dependent variable's predicted mean for individuals in each group  $g$ .

In Equation (2), the left side reveals the total difference in the probability of accessing justice between Blacks and Whites, and the right side shows the sum of the two components resulting from the decomposition. The first component, the explained effect, estimates the difference in the two groups' probability of accessing justice attributable to the difference in the means of the explanatory variables ( $\bar{X}^g$ ). The second component, the unexplained effect, estimates the gap in access to justice between the groups corresponding to differences in intercepts and partial coefficients ( $\hat{\beta}^g$ ). In addition, following Yun's (2004) approach, the contribution of each regressor to the explained and unexplained effects is weighted by  $W_{\Delta X}^i$  and  $W_{\Delta \beta}^i$ , respectively; see Equation (2).

Equations (2) and (3) present the standard approach in which only the coefficients of the group that does not suffer the discriminatory process (or the White  $\hat{\beta}$ ) are used as a reference for the decomposition. It is thus assumed that the method describing the reality of a non-discriminated group is 'normal' or 'optimal' (Phillips 2002; Jann 2008). In this case, the decomposition procedure reveals how much of the racial differential in accessing justice would be reduced if Whites were subject to the same unequal structural conditions faced by Blacks (attributes  $\bar{X}^B$ ).

However, some authors warn that the decomposition results are sensitive to the reference parameters used (Jann 2008; Oaxaca 1973; Phillips 2002; Wellington 1994). We tested the stability of the results by employing an alternative approach using the Black coefficients (Black  $\hat{\beta}$ ) as a reference. In this case, the procedure reveals the extent to which the racial differential in accessing justice would be reduced if Blacks were subjected to the 'better' structural conditions (attributes  $\bar{X}^W$ ) enjoyed by Whites.

According to the literature, the unexplained effect constitutes the discriminatory component. However, this same literature also recognises that the component captures potential effects due to unobserved variables (Hirata 2017; Jann 2008). We addressed these issues by controlling our estimations using all the variables available in our data set that are relevant to explain access to justice.

Finally, it is important to note that our empirical procedures have three limitations. First, since we only used data for 2009, the cross-sectional nature of our sample limited the possibility of identifying a clear causality between the access to justice probability and race identity. Second, there are limited recent data for access to justice; the 2009 PNAD constitutes the most recent large sample survey that investigates the profile and motivations of users of the Brazilian Justice System. Third, we omitted potentially relevant variables that may affect access to justice, for example, personal factors (e.g., daily habits and routines) and place features (e.g., housing conditions, population density and local inequality indexes). Future studies could use data sets that allow a lower level of disaggregation (e.g., city and neighbourhood levels) and, where available, perform comparisons with more recent data.



## Results and Discussion

### *Explaining the Sources of the Racial Differential in Accessing Justice*

Table 3 presents the coefficients estimated by the logit model for accessing justice. Models (2) and (3) show the coefficients in odds ratios and marginal effects, respectively. In relation to individual characteristics, the first central aspect is the parameters associated with race. Controlling for other attributes, Blacks were 15% less likely than Whites to access the justice system following incidents of criminal violence (theft, robbery and physical assault). These results validated our H1. We also found that compared to those who are married, single individuals were 8% less likely to access justice. In addition, the probability of resorting to this institutional protection mechanism increased with age, reaching its apex in the 40–59 age group, which was 13% more likely to resort to these mechanisms than individuals aged 60 years or older.

**Table 3. Results of the logit model for access to justice (Brazil 2009)**

Variables	Access to Justice			
	(1) Logit	Robust SE	(2) Odds Ratio	Robust SE
<b>Individual Characteristics</b>				
<b>Black</b>	−0.1602***	(0.0383)	0.8520***	(0.0326)
<b>Woman</b>	−0.0287	(0.0264)	0.9717	(0.0257)
<b>Single</b>	−0.0803**	(0.0393)	0.9229**	(0.0362)
<b>18 to 24 years</b>	−0.2369**	(0.1033)	0.7891**	(0.0815)
<b>25 to 39 years</b>	0.1004	(0.0868)	1.1057	(0.0959)
<b>40 to 59 years</b>	0.1194*	(0.0674)	1.1268*	(0.0759)
<b>Socioeconomic Characteristics</b>				
<b>Less than primary</b>	−0.2732***	(0.0610)	0.7609***	(0.0464)
<b>Secondary/more</b>	0.1835***	(0.0428)	1.2014***	(0.0514)
<b>Ln<sup>†</sup> (Income)</b>	0.0895***	(0.0171)	1.0936***	(0.0186)
<b>Work</b>	0.1025***	(0.0262)	1.1079***	(0.0290)
<b>Family size</b>	−0.0074	(0.0098)	0.9927	(0.0097)
<b>Location Characteristics</b>				
<b>Urban</b>	0.0279	(0.0810)	1.0283	(0.0833)
<b>Metropolitan</b>	−0.0311	(0.0623)	0.9694	(0.0604)
<b>Geographical region</b>	Yes	Yes	Yes	Yes
<b>Constant</b>	−0.4476*	(0.2335)	0.6392*	(0.1493)
<b>Observations</b>	<b>22,734</b>			
<b>LR test<sup>‡</sup> (p-value)</b>	<b>813.034***</b>			
<b>Pseudo-R<sup>2</sup> (McFadden)</b>	<b>0.026</b>			
<b>Count-R<sup>2</sup></b>	<b>0.590</b>			
<b>AIC*</b>	<b>30,497.700</b>			

Note. Robust standard errors in parentheses and adjusted for 27 clusters (at the level of Federative Units). \*\*\*Significant at 1%, \*\*5% and \*10%. †Natural logarithm. ‡Likelihood-ratio test.

In terms of socioeconomic attributes, individuals with higher levels of education and income and those engaged in some labour or occupation were more likely to access justice in cases of criminal violence. In relation to education, compared to individuals with eight to 11 years of study, individuals with up to seven years of study were 24% less likely to access justice, while individuals with 12 or more years of study were 20% more likely to access this institutional protection mechanism. Further, compared to those who did not perform any work or activity, those who performed work or an activity were 11% more likely to access justice.

Our findings are in line with those of Almeida and Fauvrelle (2013) and França, Duenhas and Gonçalves (2014). Both studies used 2009 PNAD microdata and used the search for a solution to conflict via the judiciary as a proxy for accessing justice (Common Justice or Special Court). França, Duenhas and Gonçalves (2014) also found that individuals who identified as Black

and Brown were less likely to turn to the judiciary than those who identified as White. Almeida and Fauvrelle (2013) also found that married individuals were more likely to access justice than singles.

Almeida and Fauvrelle (2013) and França, Duenhas and Gonçalves (2014) found that individuals with higher levels of income and education were more likely to access justice. In a survey conducted in a medium-sized Midwestern city in the United States, Sandefur (2014) investigated residents' experiences with different civil justice situations and concluded that the main barriers to seeking assistance from third parties (e.g., lawyers or courts) were: (i) the financial cost (expressed here as income); and, especially, (ii) the lack of knowledge about legal guarantees and the institutional framework (expressed here as education).

As a complement to the above, Figure 2 presents the probability distributions (estimated using the logit model) of accessing justice, according to age, schooling and income, for Blacks and Whites. Figure 2(a) shows the same inverted U-shape relationship between the probability of accessing justice and age for both Blacks and Whites. Individuals aged between 25 and 59 years were more likely to access the justice system in cases of criminal violence. Further, in this same age group, there was a persistent differential in accessing justice between Blacks and Whites, such that the probability of Whites resorting to this institutional protection mechanism exceeded that of Blacks by 20%.

Figure 2(b) reveals that the differential in accessing justice between Blacks and Whites was relatively more intense in the segment with seven years of study, which was the segment in which both groups were less likely to resort to this institutional protection mechanism. Finally, Figure 2(c) shows that the probability of accessing justice increased with income for Blacks and Whites.

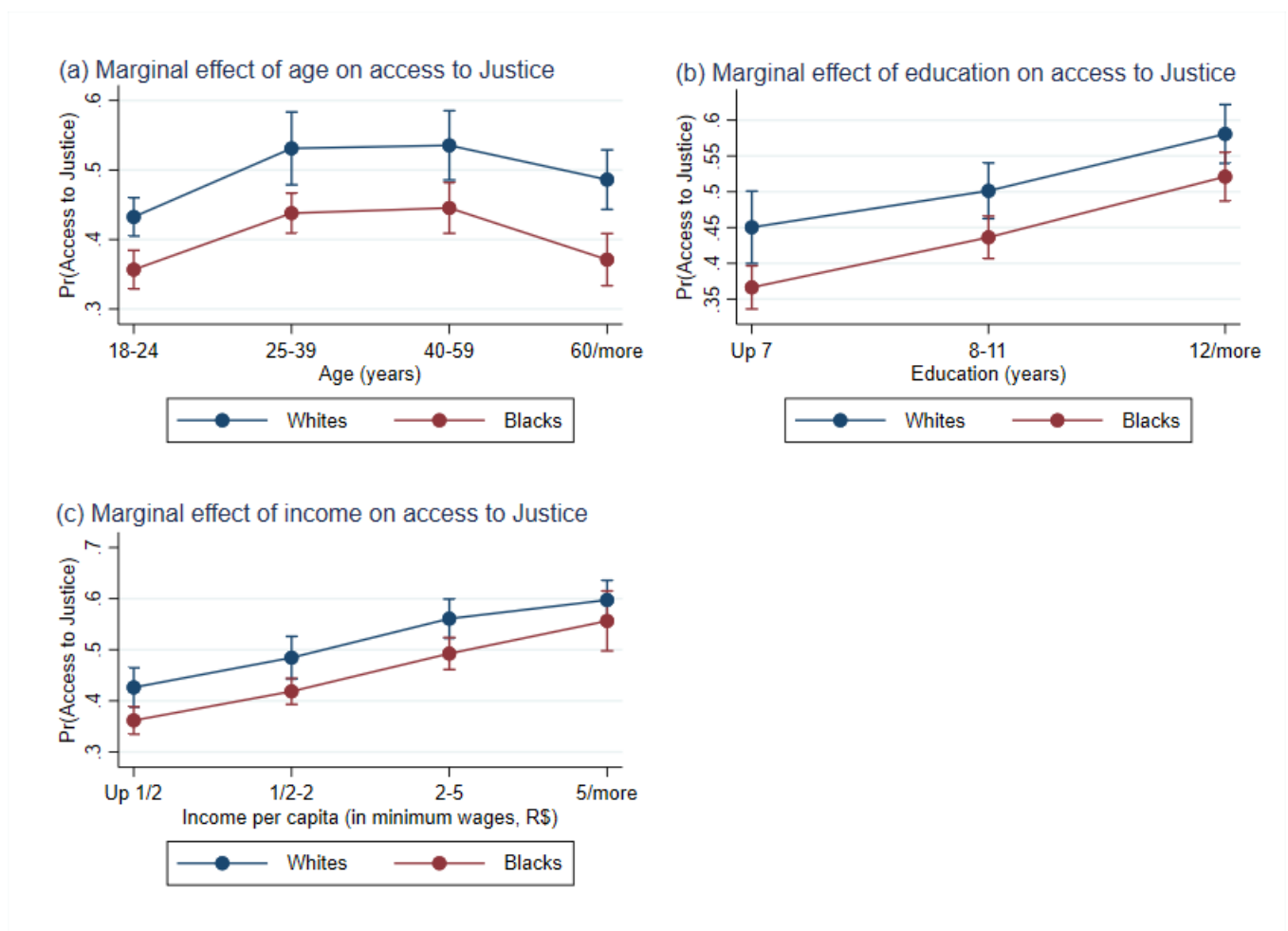


Figure 2. Marginal effects of age, education and income on access to justice for Blacks and Whites (Brazil 2009)

### Decomposing the Differential in Accessing Justice between Blacks and Whites

After estimating the logit model, we applied the Oaxaca-Blinder decomposition technique (see Table 4). In decompositions using White  $\hat{\beta}$ , Group 1 corresponds to Whites and Group 2 to Blacks. In decompositions using Black  $\hat{\beta}$ , Group 1 corresponds to Blacks and Group 2 to Whites. The Oaxaca-Blinder decomposition shows that the parameters associated with Blacks and Whites and the racial differential in accessing justice between both groups remained the same regardless of the decomposition (White  $\hat{\beta}$  or Black  $\hat{\beta}$ ). In addition, the Oaxaca-Blinder decomposition was highly statistically significant for all the estimated partial coefficients.

Controlling for the three types of characteristics (individual, socioeconomic and location), the probability of accessing justice for Whites (50.94%) exceeded that for Blacks (41.38%) by 23% (or 9.56 percentage points). These results remained the same for both decomposition forms (White  $\hat{\beta}$  or Black  $\hat{\beta}$ ).

**Table 4. Results of the Oaxaca-Blinder decomposition for access to justice (Brazil 2009)**

Overall	Access to Justice			
	(1) White $\hat{\beta}$	%	(2) Black $\hat{\beta}$	%
<b>Group 1</b>	0.5094*** (0.0194)	<b>100</b>	0.4138*** (0.0147)	<b>100</b>
<b>Group 2</b>	0.4138*** (0.0147)	<b>100</b>	0.5094*** (0.0194)	<b>100</b>
<b>Difference</b>	0.0956*** (0.0113)	<b>100</b>	-0.0956*** (0.0113)	<b>100</b>
<b>Explained</b>	0.0574*** (0.0074)	<b>60.04</b>	-0.0567*** (0.0073)	<b>59.31</b>
<b>Unexplained</b>	0.0382*** (0.0084)	<b>39.96</b>	-0.0389*** (0.0084)	<b>40.69</b>
<b>Explained</b>				
<b>Individual characteristics</b>	0.0035*** (0.0011)	–	-0.0035*** (0.0011)	–
<b>Socioeconomic characteristics</b>	0.0290*** (0.0032)	–	-0.0287*** (0.0032)	–
<b>Location characteristics</b>	0.0248*** (0.0070)	–	-0.0246*** (0.0069)	–
<b>Unexplained</b>				
<b>Individual characteristics</b>	-0.0579** (0.0279)	–	0.0589** (0.0333)	–
<b>Socioeconomic characteristics</b>	0.1411** (0.0611)	–	-0.1435** (0.0622)	–
<b>Location characteristics</b>	-0.0217 (0.0207)	–	0.0221 (0.0210)	–
<b>Constant</b>	-0.0233 (0.0734)	–	0.0237 (0.0747)	–
<b>Observations</b>	<b>22,734</b>		<b>22,734</b>	

Note. Robust standard errors in parentheses and adjusted for 27 clusters (at the level of Federative Units). \*\*\*Significant at 1%; \*\*5%; and \*10%.

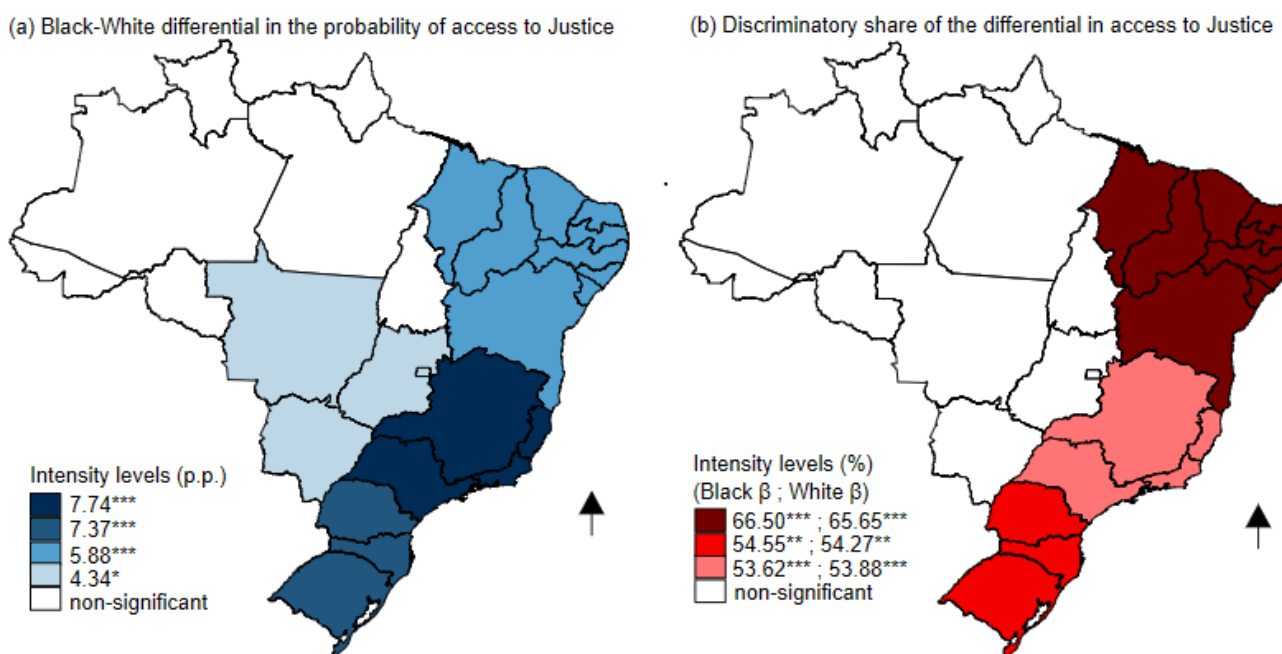
Regardless of the decomposition form, approximately 60% of the racial differential in accessing justice between Blacks and Whites was attributed to differences in the means of the characteristics between the two groups (the explained effect). Moreover, whether using White  $\hat{\beta}$  or Black  $\hat{\beta}$ , approximately 40% of this differential was attributable to differences in the process (coefficients) associated with the characteristics of each group (the unexplained effect or discriminatory component). Differences in individual, socioeconomic and location characteristics contributed to the composition of the explained effect in both forms. However, only differences in individual and socioeconomic characteristics were significant to the composition of the unexplained effect of the racial differential between Blacks and Whites in accessing justice.

As in Table 4, Figure 3 disaggregates the Oaxaca-Blinder decomposition results for each Brazilian geographic region. The racial differential in accessing justice was statistically significant (at least 10%) in all regions except in the North. In both cases,

using White  $\beta$  or Black  $\beta$ , this differential was greater in the Southeast region, followed by the South and Northeast regions and then by the Midwest region (see Figure 3[a]).

Taken together, the results for access to justice indicate the limitations of structural explanations regarding the racial access to justice differential, validating our H2. As Blacks and Whites in Brazil are exposed to different processes for access to justice, our findings also suggest that race is an important factor in explaining the differential (Adorno 1995, 1996; Cano 2010; Vargas and Amparo-Alves 2010; Winant 2015), reinforcing the validity of our H1 hypothesis. Considering the daily experiences of living in a racialized society deeply marked by state-sanctioned violence by the police and by other social and institutional mechanisms (Vargas and Amparo-Alves 2010), our findings provide further evidence of racial discrimination in Brazil (Hasenbalg 1979, 1996; Vargas 2005), expressed here as the condition of access to justice. Our results did not allow us to identify a direct link between access to justice and greater perceptions of injustice by Blacks (Buckler, Unnever and Cullen 2008; Hagan et al. 2005); however, there is a clear need for further investigations to be conducted in this area.

Finally, Figure 3(b) focuses on the spatial dynamics of the unexplained effect. There was only a marginal change in the portion of the racial differential in accessing justice attributed to the explained and unexplained effects when using White  $\beta$  or Black  $\beta$  (see Figure 3[b]). However, in both cases, the trend remained the same; the share of the discriminatory component increased as it moved from the Southeast and South regions to the states in Brazil's Northeast region. These results validated our H3, as the racial differential in accessing justice and its components differed across the Brazilian territory.



**Figure 3. The racial differential in access to justice and the intensity levels of the discriminatory component by major regions (Brazil 2009)**

## Conclusions

This study tested three hypotheses related to how race affects access to justice in Brazil. We found evidence to support all three hypotheses. First, we found that Blacks were less likely to access justice following violent crimes (theft, robbery and physical assault) than Whites. Second, only part of the racial differential in accessing justice (around 60%) could be eliminated by improving socioeconomic attributes to reduce the persistent educational and income inequalities between Blacks and Whites. Thus, around 40% of this differential provides evidence of racial discrimination in Brazil. Finally, this discriminatory component tended to be greater in the Northeast region of the country, a location historically characterised by higher social inequalities and violent mortality.

Taken together, our results reveal that race is an important factor in explaining the differential between Blacks and Whites in accessing justice in Brazil. Thus, considering the daily experiences of living in a racialized society marked by state-sanctioned violence (by the police and other social and institutional mechanisms), our results reinforce the evidence of racial discrimination

in Brazil, expressed here by the condition of access to justice. Given the structural scenario of racial discrimination in Brazil, at the limit expressed by the notable disparities in homicides between Blacks and Whites, our results reveal that social death (expressed by differences in employment, income, education and access to justice) precedes the physical death of the Black population in Brazil.

In conclusion, given the complexity of inequality in Brazil, this study reinforces the need to consolidate an official data set on access to justice and public security. Due to the limitations of official records, this is an important measure to guide policymakers' actions and policies. Given the centrality of racial issues in the scenario of violence, combating racial inequalities and other related factors must be one of the challenges addressed when defining the public policy agenda, especially in Brazil. Achieving this objective presupposes improvements not only in access to the justice system and its efficiency and quality but also initiatives to overcome social inequalities in their multiple dimensions.

### **Acknowledgement**

The authors are grateful to Coordination for the Improvement of Higher Education Personnel (CAPES) and the National Council for Scientific and Technological Development (CNPq) for funding this work.

### **Notes**

Based on the methodology of the Brazilian Institute of Geography and Statistics (IBGE), several studies have classified Blacks ('pretos') and Browns ('pardos') as Blacks ('negros'). According to this literature, considering the characteristics of racial prejudice in Brazil, Blacks and Browns suffer racial discrimination and have similar socioeconomic characteristics across several dimensions (e.g., access to education, to the labour market and income) (Duarte, Alves and Freitas 2023; Osório 2003; Telles 2014).

*Correspondence:* Bruno Truzzi, Institute of Economics, University of Campinas, São Paulo, Brazil. [btruzzi13@gmail.com](mailto:btruzzi13@gmail.com)

## References

- Adorno S (1995) Discriminação racial e justiça criminal em São Paulo [Racial discrimination and criminal justice in São Paulo]. *Novos Estudos CEBRAP* 43: 45–63.
- Adorno S (1996) Racismo, criminalidade violenta e Justiça Penal: Réus Brancos e Negros em perspectiva comparativa [Racism, violent crime and criminal justice: White and Black defendants in a comparative perspective]. *Revista Estudos Históricos* 9(18): 283–300.
- Almeida ATC and Fauvre TA (2013) Determinantes do não acesso à Justiça no Brasil: Algumas evidências [Determinants of non-access to justice in Brazil: Some evidence]. *Economic Analysis of Law Review* 4(1): 120–148. <https://doi.org/10.18836/2178-0587/ealr.v4n1p120-148>
- Anderson M (1999) Access to justice and legal process: Making legal institutions responsive to poor people in LDCs. *WDR 2000 Conference*: 1-35. Online: August 16-17, 1999.
- Berhman J, Gaviria A and Szekely M (2001) Intergenerational mobility in Latin America. *Economía: Journal of the Latin American and Caribbean Economic Association* 2(1): 1–44.
- Black SE, Devereux PJ and Salvanes KG (2005) Why the apple doesn't fall far: Understanding intergenerational transmission of human capital. *American Economic Review* 95(1): 437–449.
- Blinder AS (1973) Wage discrimination: Reduced form and structural estimates. *Journal of Human Resources* 8(4): 436–455.
- Brazil (1988) *Constituição da República Federativa do Brasil [Constitution of the Federative Republic of Brazil]*. Brasília: Senado Federal.
- Brazil (1992) *Decreto nº 678, de 6 de novembro de 1992. Promulga a Convenção Americana sobre Direitos Humanos (Pacto de São José da Costa Rica), de 22 de novembro de 1969 [Decree No. 678, of 6 November 1992. Enacts the American Convention on Human Rights (Pact of San José, Costa Rica), of 22 November 1969]*. [http://www.planalto.gov.br/ccivil\\_03/decreto/D0678.htm](http://www.planalto.gov.br/ccivil_03/decreto/D0678.htm).
- Bruce JW, Garcia-Bolivar O, Hanstad T, Roth M, Nielsen R, Knox A and Schmidt J (2007) *Legal empowerment of the poor: From concepts to assessment*. Burlington: ARD Inc. for USAID.
- Brunson RK and Miller J (2005) Young Black men and urban policing in the United States. *British Journal of Criminology* 46(4): 613–640. <https://psycnet.apa.org/doi/10.1093/bjc/azi093>.
- Buckler K, Unnever JD and Cullen FT (2008) Perceptions of injustice revisited: A test of Hagan et al.'s comparative conflict theory. *Journal of Crime and Justice* 31(1): 35–57. <https://doi.org/10.1080/0735648X.2008.9721243>.
- Campante FR, Crespo AR and Leite PG (2004) Desigualdade salarial entre raças no mercado de trabalho urbano brasileiro: Aspectos regionais [Wage inequality between races in the Brazilian urban labour market: Regional aspects]. *Revista Brasileira de Economia* 58(2): 185–210.
- Cano I (2010) Racial bias in police use of lethal force in Brazil. *Police Practice and Research: An International Journal* 11(1): 31–43. <https://doi.org/10.1080/15614260802586350>.
- Cappelletti M and Garth B (1978) *Access to justice: The worldwide movement to make rights effective. A general report*. Milan: Dott. A. Giuffrè.
- Ceccato V, Melo SN and Kahn T (2018) Trends and patterns of police-related deaths in Brazil. In Carrington M, Hogg K, Scott R and Sozzo J (eds) *The Palgrave handbook of criminology and the global south*: 521–550. Cham: Palgrave Macmillan.
- Cerqueira DRC and Moura RL (2013) *Custo da juventude perdida no Brasil [Cost of youth lost in Brazil]*. [https://www.ipea.gov.br/portal/images/stories/PDFs/130712\\_custo\\_da\\_juventude\\_perdida\\_no\\_brasil.pdf](https://www.ipea.gov.br/portal/images/stories/PDFs/130712_custo_da_juventude_perdida_no_brasil.pdf).
- Centro de Estudos de Segurança e Cidadania (2020) *A cor da violência policial: A bala não erra o alvo [The color of police violence: The bullet doesn't miss the target]*. <https://cesecseguranca.com.br/textodownload/a-cor-da-violencia-policial-a-bala-nao-erra-o-alvo/>.
- Chilton A and Versteeg M (2017) Rights without resources: The impact of constitutional social rights on social spending. *The Journal of Law and Economics* 60(4): 713–748. <https://doi.org/10.1086/696826>.
- Claus RE, Vidal S and Harmon M (2017) Racial and ethnic disparities in the police handling of juvenile arrests. *Crime and Delinquency*: 1–19. <https://doi.org/10.1177/0011128717741615>.
- Coelho EC (1978) Criminalização da marginalidade e a marginalização da criminalidade [Criminalization of marginality and the marginalization of criminality]. *Revista Brasileira de Administração Pública* 12(2): 139–161.
- Coleman C and Moynihan J (1996) *Understanding crime data: Haunted by the dark figure* (Vol. 120). Buckingham: Open University Press.
- Duarte ECP, Alves D and Freitas FS (2023) Racial democracy crisis and the emergence of critical race and feminist theories in Brazilian criminology. *Justice, Power and Resistance* 6(1): 69–89. <https://doi.org/10.1332/VNDO4836>.
- França MTA, Duenhas RA and Gonçalves FO (2014) O Acesso ao Judiciário é para Todos? Uma Análise Utilizando o Índice de Oportunidade no Acesso para os Estados Brasileiros [Is access to the Judiciary for everyone? An analysis using the access opportunity index for Brazilian states]. *Economic Analysis of Law Review* 5(2): 285–295.

- Gala PSOS (2003). A teoria institucional de Douglass North [Douglass North's institutional theory]. *Revista de Economia Política* 23(2): 89–105. <https://doi.org/10.1590/0101-31572003-0684>.
- Graham A, Haner M, Sloan MM, Cullen FT, Kulig C, Jonson CL, Graham A, Haner M, Sloan MM and Cullen FT (2020) Race and worrying about police brutality: The hidden injuries of minority status in America. *Victims and Offenders*: 1–25. <https://doi.org/10.1080/15564886.2020.1767252>.
- Hagan J, Shedd C and Payne MR (2005) Race, ethnicity, and youth perceptions of criminal injustice. *American Sociological Review* 70(3): 381–407. <https://doi.org/10.1177/000312240507000302>.
- Hasenbalg CA (1979) *Discriminação e desigualdades no Brasil [Discrimination and inequalities in Brazil]*. Rio de Janeiro: Editora Graal.
- Hasenbalg CA (1996) Entre o mito e os fatos: Racismo e relações raciais no Brasil [Between myth and facts: Racism and racial relations in Brazil]. In Maio MC and Santos RV (eds) *Raça, ciência e sociedade*: 235–249. Rio de Janeiro: Editora Fiocruz.
- Hasenbalg CA and Valle-Silva N (1999) Notes on racial and political inequality in Brazil. In Hanchard M. (ed) *Racial politics in contemporary Brazil*: 154–178. Durham: Duke University Press.
- Hirata G (2017) Evidence of discrimination by preference in Brazil. *Economia Aplicada* 21(1): 69–93. <https://doi.org/10.11606/1413-8050/ea153368>.
- Instituto Brasileiro de Geografia e Estatística (IBGE) (2010). *Pesquisa nacional por amostra de domicílios (PNAD) 2009: Características da vitimização e do acesso à Justiça no Brasil [National Household Sample Survey (PNAD) 2009: Characteristics of victimization and access to justice in Brazil]*. <https://biblioteca.ibge.gov.br/visualizacao/livros/liv47311.pdf>.
- Instituto Brasileiro de Geografia e Estatística (IBGE) (2019) *Desigualdades sociais por cor ou raça no Brasil [Social inequalities by color or race in Brazil]*. [https://biblioteca.ibge.gov.br/visualizacao/livros/liv101681\\_informativo.pdf](https://biblioteca.ibge.gov.br/visualizacao/livros/liv101681_informativo.pdf).
- Instituto Brasileiro de Geografia e Estatística (IBGE) (2021) *Pesquisa Nacional por Amostra de Domicílios (PNAD) Contínua: 1º Trimestre 2021 [Continuous National Household Sample Survey (PNAD): 1st Quarter 2021]*. [https://biblioteca.ibge.gov.br/visualizacao/periodicos/2421/pnact\\_2021\\_1tri.pdf](https://biblioteca.ibge.gov.br/visualizacao/periodicos/2421/pnact_2021_1tri.pdf).
- Instituto de Pesquisa Econômica Aplicada—Fórum Brasileiro de Segurança Pública (IPEA-FBSP) (2021) *Atlas da violência 2021 [Atlas of violence 2021]*. <https://www.ipea.gov.br/atlasviolencia/publicacoes>.
- Jann B (2008) The Blinder-Oaxaca decomposition for linear regression models. *The Stata Journal* 8(4): 453–479. <https://doi.org/10.1177/1536867X0800800401>.
- Kitsuse JI and Cicourel AV (1963) A note on the use of official statistics. *Social Problems* 11: 131–138.
- Langfur H (2006) *The forbidden lands: Colonial identity, frontier violence, and the persistence of Brazil's Eastern Indians 1750–1830*. Stanford: Stanford University Press.
- Misse M (2007) *Crime e violência no Brasil contemporâneo: Estudos de sociologia do crime e da violência urbana [Crime and violence in contemporary Brazil: Studies in the sociology of crime and urban violence]*. Rio de Janeiro: Lúmen Júris.
- Oaxaca R (1973) Male-female wage differentials in urban labor markets. *International Economic Review* 14(3): 693–709.
- Oliveira FLD and Cunha LG (2020) Os indicadores sobre o Judiciário brasileiro: limitações, desafios e o uso da tecnologia [The indicators on the Brazilian Judiciary: Limitations, challenges and the use of technology]. *Revista Direito GV* 16(1): 1–23.
- Oliveira JR A and Lima VCA (2013) Segurança pública e racismo institucional [Public safety and institutional racism]. In Alencar JLO and Messenberg RP (eds) *Boletim de Análise Político-Institucional 4*: 21–26. Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada (PEA).
- Osório RG (2003) O sistema classificatório de ‘cor ou raça’ do IBGE [The IBGE ‘color or race’ classification system]. <https://files.cercomp.ufg.br/weby/up/1135/o/IBGE.pdf>.
- Paixão ALA (1990) Violência urbana e a Sociologia: sobre crenças e fatos e mitos e teorias e políticas e linguagens e ... [Urban violence and Sociology: About beliefs and facts and myths and theories and policies and languages and ...]. *Religião e Sociedade* 15(1): 68–81.
- Phillips JA (2002) White, Black, and Latino homicide rates: Why the difference? *Social Problems* 49(3): 349–373.
- Ramos S and Musumeci L (2005) *Elemento suspeito: Abordagem policial e discriminação na cidade do Rio de Janeiro [Suspicious element: Police approach and discrimination in the city of Rio de Janeiro]*. Rio de Janeiro: Civilização Brasileira and CESeC.
- Sadek MTA (2004) Judiciário: mudanças e reformas [Judiciary: Changes and reforms]. *Estudos Avançados* 18(51): 79–101.
- Sandefur RL (2014) *Accessing justice in the contemporary USA: Findings from the community needs and services study*. <https://ssrn.com/abstract=2478040> or <http://dx.doi.org/10.2139/ssrn.2478040>.
- Sen A (1999). *Development as freedom* (1st ed.). New York: Oxford University Press.
- Sherwood RM, Shepherd G and Souza CM (1994) Judicial systems and economic performance. *The Quarterly Review of Economics and Finance* 34: 101–116. [https://doi.org/10.1016/1062-9769\(94\)90038-8](https://doi.org/10.1016/1062-9769(94)90038-8).

- Sistema de Informações do Departamento Penitenciário Nacional (SISDEPEN) (2021) *Levantamento nacional de informações penitenciárias: Período de Janeiro a Junho de 2021 [National survey of prison information: Period from January to June 2021]*. <https://www.gov.br/depen/pt-br/servicos/sisdepen>.
- Skogan WG (1977) Dimensions of the dark figure of unreported crime. *Crime and Delinquency* 23(1): 41–50. <https://doi.org/10.1177/001112877702300104>
- Soares SSD (2000) O perfil da discriminação no mercado de trabalho: Homens Negros, mulheres Brancas e mulheres Negras [The profile of discrimination in the labor market: Black men, White women and Black women]. <http://www.aids.gov.br/sites/default/files/campanhas/2005/38277/trabalho.pdf>.
- Spinney E, Cohen M, Feyerherm W, Stephenson R, Yeide M and Shreve T (2018) Disproportionate minority contact in the U.S. juvenile justice system: A review of the DMC literature, 2001–2014, Part I. *Journal of Crime and Justice* 41(5): 573–595. <https://doi.org/10.1080/0735648X.2018.1516155>.
- Telles EE (2014). *Pigmentocracies: Ethnicity, race, and color in Latin America*. Chapel Hill: UNC Press Books.
- Truzzi B, Lirio VS, Cerqueira DRC, Coelho DSC and Cardoso LCB (2022) Racial democracy and Black victimization in Brazil. *Journal of Contemporary Criminal Justice* 38(1): 13–33. <https://doi.org/10.1177/10439862211038448>.
- United Nations (UN) (2023) *Transforming our world: The 2030 agenda for sustainable development*. <https://sdgs.un.org/2030agenda>.
- United Nations Development Programme (UNDP) (2011) *2010 global programme annual report: Accelerating access to justice for human development—A UNDP Rule of Law Initiative*. <https://www.un.org/ruleoflaw/files/RoL-A2J%20GP%20Annual%20Report%202010%20DGG%20BDP.pdf>.
- United Nations (UN) General Assembly (1948) *Universal Declaration of Human Rights (UDHR)*. <https://www.un.org/en/about-us/universal-declaration-of-human-rights>.
- Valle-Silva N (1980) O preço da cor: Diferenciais raciais na distribuição da renda no Brasil [The price of color: Racial differences in income distribution in Brazil]. *Pesquisa e Planejamento Econômico* 10(1): 21–44.
- Vargas JHC (2005) Apartheid brasileiro: Raça e segregação residencial no Rio de Janeiro [Brazilian apartheid: Race and residential segregation in Rio de Janeiro]. *Revista de Antropologia* 48(1): 75–131.
- Vargas JHC and Amparo-Alves J (2010) Geographies of death: An intersectional analysis of police lethality and the racialized regimes of citizenship in São Paulo. *Ethnic and Racial Studies* 33(4): 611–636. <https://doi.org/10.1080/01419870903325636>.
- Wellington AJ (1994) Accounting for the male/female wage gap among whites: 1976 and 1985. *American Sociological Review* 59(6): 839–848.
- Winant H (2015) The dark matter: Race and racism in the 21st century. *Critical Sociology* 41(2): 313–324. <https://doi.org/10.1177/0896920513501353>
- Yun MS (2004) Decomposing differences in the first moment. *Economics Letters* 82(2): 275–280. <https://doi.org/10.1016/j.econlet.2003.09.008>.