



MSc Urban Economic Development

Development Planning Unit, University College London

How the spatial meets the social? Urban Institutions and COVID-19 in Brazil

A dissertation submitted in partial fulfilment of the requirements for the MSc in Urban Economic Development

Juliano Cavalli de Meira - MTSH3

Supervisor: Camila Cociña

Word Count: 10.501

15th October 2021



Abstract

This study looks into the responses to the COVID-19 pandemic in the favelas of Rio de Janeiro. The main objective of this study is to enable an understanding of a favela as a capable urban governance institution. This rationale is made possible through the case study of local initiatives that surged in Rio during the crisis, by making use of Byrne's (2005) complexity framework applied to social sciences. Through the analysis of this case, it becomes clear that three institutional conditions allowed local organisations to advance urban equality throughout the pandemic. First, a condition of formal government institution's failure. Second, a condition of inadequate access to health and sanitation. Third, a structural inequality that portray favelas as a threat to be perceived by formal institutions as something that must be fixed. This understanding leads to a contribution to the academic and societal understanding of urban settings in Brazil. This paper contains important implications for future work in favelas, although its findings are somewhat limited to the specific context of favelas in Rio de Janeiro.

Acknowledgements

I would like to thank Danieli, Francisco and Marlete for their time and support during my research. To my referees Abbey Steele and Luc Fransen that helped me get here. To my supervisor Camila Cociña, to my tutors Liza Griffin and Naji Makarem for the valuable input that helped this work move forward. I dedicate this paper to all the victims of COVID-19. I am faithful that the role of knowledge and science would help us fight misinformation and end the negationist rhetoric.

Contents

Introduction.....	6
Situating knowledge on institutions and practices in the Latin America and Caribbean region through literature.	8
Formal and Informal institutions in LAC	8
Key Urban Manifestations of Informality	9
Informal settings and urban realities.....	12
Access to health services in the LAC region.	13
Wealth and Income in LAC.....	15
Narrowing to the case.....	15
Methodology	17
Case Study Analysis	20
Rio and Favelas	20
Filling the gap in data.	20
The gap beyond data.....	24
Favelas as an institution or institutional response from favelas?.....	28
Conclusion and Recommendations.....	29
Bibliography	31

List of Figures

Figure 1 Complexo da Maré - Nova Holanda Photo by: Rodrigo Maré Souza	11
Figure 2 Sanitation in Favela Muzema - Rio de Janeiro	13
Figure 3 Food parcels in the City of God favela. Photo by: Nicolás Lanfranchi/The Guardian	25
Figure 4 Resident Fills up Tiago Firmino Tank in Santa Marta photo by Ricardo Moraes.....	26

Introduction

This paper looks at the intersection of the formal and informal institutional responses to the COVID-19 crisis in Rio de Janeiro, Brazil. It discusses the complexities of urban inequality in informal settings to challenge the understanding of favelas¹ as a spatial boundary in the city. This study concerns the formal and informal institutions and what they put in place for the livelihood of the invisible², the informal, the low-skilled worker and the women by exploring what these responses mean to individuals when considering urban inequalities in Brazil.

This paper subscribes to the understanding of inequalities in cities as a multidimensional experience. As such, I employ a definition of urban inequality in line with the one advanced by Frediani, Cociña and Acuto (2019), that captures the experience and identities of those living in urban settings. To this matter, the main question guiding this study is: *What institutional conditions allowed local organisation to advance urban equality throughout responses to the COVID-19 pandemic in the favelas of Rio de Janeiro?*

By asking this question, I use these responses to add to the body of knowledge on institutional and urban governance. To do so, I first discuss the path of institution formation and formal government policy that enable these institutions to delivery policy to urban dwellers and informal settings in Brazil. Then, I discuss the inequalities present in Latin America and the Caribbean (LAC) and the implications of those for the livelihood of urban dwellers in Brazil.

I employ the lens of complexity from Byrne (2005) as a framework to looks into the responses created for COVID-19 by local initiatives in the favelas of Rio de Janeiro. Specifically, I dig into these complexities through an in-depth case study analysis of community responses that emerged in Rio by exploring how *the institutional gap left by formal government* affects our understanding of the meaning of favelas.

This study aims to expand the understanding of urban institutions by focusing on the subsidiarity of local communities and their self-governance capacities to portray favelas as a capable urban institution. Here, I aim to stretch the concept of an urban institution to include the collectives, communities, grass-root organisations that operate in favelas vis-à-vis the role of formal institutions of government. To be clear, I include the collective responses to COVID-19 to push for an understanding that favela can represent more than a term for spatial and urban inequality: it can embody an institution capable of self-governance and self-organisation on its terms - an institution constructed by those invisible to the formal government.

¹ Favela is what some commonly known as an informal setting in Brazil. Here, I use the term in this sense adding the observations made by Simpson (2013) that poses that the conventional distinction between formal and informal and the views of a “dual city” are too blurred to define its reality. Then, “perhaps the single persistent distinction between favelas and the rest of the city is the deeply rooted stigma that adheres to them and to those who reside in them.” (Perlman, 2010: 30 cited in Simpson, 2013)

² Those that are not perceived or seen and even concerned in the formal policy making esphere (Chen and Carré, 2020; Maringanti, 2020)

The academic relevance of this discussion is to further the understanding that institutional conditions are shaped by and are part of civil society. The emergence and existence of other forms of institutions such as informal associations and organisations confirm the long-argued trend in urbanisation theory – the informal matters (Castells, 1992; Caldeira, 2017). The societal relevance of such investigations lies upon the necessary and urgent need of elevating those often forgotten in formal policy settings. Formal government responses often overlook racialised groups, women and those in informal jobs. Worse, these groups are left to their own devices in moments of crisis such as during the COVID-19 pandemic (De Pádua Cavalcanti Bastos *et al.*, 2020). As such, this study seeks to understand the dynamics of formal politics vis-à-vis that of informal institutions, thereby, contributing to a broader societal effort to prevent future damage to the most vulnerable in society.

This paper is organised as follows: the first section contains an overview of institutions, urban inequality, informality and health in Latin America. This is an important review as it considers how the formal institutions of LAC formed and what urban trajectories are embedded in institutional development and the consequences of such for inequalities in cities. This section provides the foundation of a broader picture of inequalities present in informal settings of LAC and in Brazil that is crucial to the discussion of the case in this paper. Although important to this paper, this discussion is not exhaustive because it focuses only on the aspects of urban inequalities that matter for the case at hand. This is certain not to say that only the forms of inequalities discussed in this section are present in urban settings in Brazil.

Then, the second section of this paper operationalises the analytical framework to answer the main question guiding this study. In this section I discuss the concepts of poverty and urban equality as well as the elements of complexity and the justification to use this framework to guide this study. Here I also pose a concept of governance and the importance of Caldeira's (2017) peripheral urbanisation to the perceptions of favelas as such. I end that section by highlighting the limitations of employing such a framework and what can be done to offset these limitations in the future.

The third section of this paper discusses the cases used to demonstrate how the responses to COVID-19 pandemic in Rio enable one to see favelas beyond a narrow spatial concept. In this section, I employ secondary data analysis to highlight voices, opinions and perceptions of urban dwellers that portray the aspects of urban inequality. As a result, in the remainder of this section, I argue for considering favelas as a governance institution.

Lastly, I finish this paper through a conclusion and recommendations section. Here, I answer the main question guiding this paper by pointing to three conditions that emerge from the study of these COVID-19 pandemic in Rio. Then, I use these conditions to point to limitations of this study that can perhaps be resolved through further investigation.

Situating knowledge on institutions and practices in the Latin America and Caribbean region through literature.

The following section provides a critical review of the development of institutions and informal settings in Latin America and the Caribbean (LAC) vis-à-vis the urban inequalities present in these cities. Here, the intention is to touch upon themes that help illustrate the socio-economic realities of those living in favelas, and the entanglements of these realities and governance. The section starts with a historical perspective on formal and informal institutions in the region. Then, I proceed to discuss informality and informal settings and the region. Lastly, I portray the issues of wealth inequality and access to health services as central to the understanding of life in favelas during the COVID-19.

Formal and Informal institutions in LAC

Institutional formation in Latin America and the Caribbean (LAC) comes from a long political process, from independence to democratic consolidation. It is beyond the scope of this paper to understand patterns of state formation in LAC. It is, however, important to mention that LAC's history with democracy is a fragile one. In the region, there are countries such as Haiti, Nicaragua and Venezuela in which democracy is indeed a debatable state of affairs. The political history of LAC is one of colonialism, clientelism, murder, slavery, violence and rape. No country in LAC was spared from the barbarous colonial mindset, which is crucial to consider when discussing institutions in the region. The majority of countries in LAC declared independence in the early 1800s but would only become democracies almost 100 years later. Democracy failed many times in the region; but it is also true and less talked about that the meddling in LAC political affairs is recurrent, and has hindered countries from achieving autonomy and political stability.

Both autonomy and stability are crucial for the development of democratic institutions. These institutions define how people live and the type of policies they have access to; who prospers and who perishes (Acemoglu and Robinson, 2012). Although some countries have similar political systems in the LAC region, they are different in political disfranchising and fragmentation (Stein and Tommasi, 2008). The problem then becomes evident when considering the public policy and the capacity of formal institutions to work on policy delivery. Accordingly, Scartascini, Stein and Tommasi (2012) evaluated a diversity of public policy aims, such as coherence, efficiency and stability in a range between 1 (lowest deliver of public policy) and 4 (better delivery of public policies). The authors found out that the levels of public policy efficiency for the LAC is equal to that of Sub-Saharan Africa (1.29) and the lowest among the countries studied. Then, it seems that institutions depend on autonomy and stability to achieve efficiency in its policies deliveries.

In LAC, however, the increased capacity of formal and informal institutions is at the centre of the growing trend of government decentralisation. In this way, local-level governments take control of

policymaking and even implementation in various areas such as education, health and housing. This trend entails the concept of subsidiarity developed in federalist states such as the USA and vastly applied in the reconstruction of national governments in the LAC, especially after military dictatorship (Spink *et al.*, 2008). In Brazil, the 1988 constitution represented this change in which government structures would then organise in three levels: Federal, State and Municipal or local— which in turn, affects the division of responsibilities for public service provision and the development of institutions and policies. In other words, the autonomy aspect of institutional development likely increased given the levels of decentralisation in countries such as Brazil.

When the political fails, there are also safety nets acting as subsidiaries to the formal role of government. Almost all countries count on a coalition of the most diverse and inclusive organisations to influence policy activity and fill the absence of the state (Rico and Segovia, 2018). This is perhaps because of the high levels of informality in the economic sector, housing and jobs market in LAC countries. For example, in the past, even health care was provided by charity hospitals that had no affiliation to the state or any formal organisation (Acuña and Bolis, 2005). In other instances, these organisations surged to protect those neglected by public policy (Chieffi and Barata, 2009). In another example, a different coalition of organisations has provided water for those living in informal settings in which the state failed to provide the most basic infrastructures (Leite Lessa Chaves, 2019). It is then crucial to understand the role of local or, so to say, informal assistance in the LAC.

Through the years, the invisible provided exceptional qualities to compete with formal responses in an environment where policy delivery often fails. As such, this study considers the role of informal responses to COVID-19 in favelas to understand two things. First, how the locals fill the gap of formal governance while advancing urban equality. Second, what that can tell us about the way we see institutions in the city.

Key Urban Manifestations of Informality

Informality in the LAC region is widespread and takes different forms in aid, houses, jobs, settlements, services and workers. Concerned with the consequences of informality, literature has vastly explored the informal economy's role and size across multiple countries (Vuletin, 2008; Chen and Carré, 2020). The informal sector indeed guarantees jobs and income for some, but the informal sector is also the subject of significant controversies given its workers' lack of social protections (Canagarajah and Sethuraman, 2001; Freije, 2005). For that reason, some push for an agenda that advocates for a transformation through formalisation. As in the example given by Nyamhondoro (2017), increasing tax collection and better public policy is used as the rhetoric to achieve this formalisation. It was not until recently that development scholars stopped considering the informal sector as a barrier for a country to prosper and stopped pointing to informality as the leading cause of significant inequalities in societies (Roy, 2009).

Governments have long made the bet of policies aiming to formalise urban settings and its residents by promising, for example, access to welfare and social protection nets such as unemployment benefits and health insurance (Freije, 2005). Nevertheless, all of this access was conditional on the terms offered by governments (Segre, 2009) that almost always failed to grasp the realities of those affected by such policies (Fiori and Brandão, 2009). This failure in the design of policy intended for the informal sector emerges as the issue and perhaps even as a barrier to the deployment of formal government responses in urban settings (UN Habitat III, 2016). Simultaneously, these failures create an opportunity to develop alternative urban institutions that do not depend on the government (Meagher, 2007). Formalisation policies often overlook informality and provide little assistance to those living in such conditions because the informal is invisible to policymaking.

Here I would argue, the problem with informality is when social practices, as Fraser (2000) describes, transform some individuals into less deserving of the status of full members of societies. Then, what follows is that many individuals have less power to shape the political processes, especially in urban settings (Cociña *et al.*, 2019). In acknowledging that, initiatives such as the SDG goals and the New Urban Agenda surged to seek equality in urban settings fiercely. Equality and inclusion in urban settings are at the forefront of a vision for adequate standards of living, gender equality and increased participatory processes in cities (United Nations, 2017b). It is crucial to understand the informal or the invisible as a full member of the political process if this vision for adequate living concerns all the members of society.

The key urban manifestation of informality in LAC is perhaps housing. Urban fragmentation happens in practically all Latin countries. The region concentrates high levels of urbanisation that accommodated a steady population increase since the 1940s (Magalhães, 2016). The region's rapid urbanisation also created challenges for local and national governments and even more for its residents. In 2018 the World Bank estimated that 20% of the total LAC population lived in informal settings, and only 31% had access to safe water and sanitation facilities (The World Bank, 2021). In turn, informality brings to the city a process of fragmentation perceived by many as a duality (Segre, 2009; de Vries, 2016). Yet, these dualities between informality and formality in urban settings are challenged in scholarship and presented as a necessary process of urban formation (Castells, 1992)

This fragmentation becomes visible when looking into informal settlements and the policies surrounding those habitations. For example, when looking back at city formation history in Rio de Janeiro, one finds that a large portion of the city resulted from workers settlement and was never part of a planned or formal settlement (Fiori and Brandão, 2009). The consequence of this urban trajectory is that wealthier individuals living in privileged locations have better access to, for example, public transport (Oviedo Hernandez and Dávila, 2016). Further, in the less privileged areas of these cities, the lack of access to facilities and quality health care seems to be a recurrent issue (Castiglione, Lovasi and Carvalho, 2018), giving rise to the existence of two different health care systems, one for the rich and one for the poor (Cotlear *et al.*, 2015).

The manifestations of informality in urban settings has socio and economic consequences that cannot be discussed separately. In other words, to understand how institutional responses can come from such an environment, it is then necessary to look into the political processes that shape these spaces together with the socio and economic realities of those living in them.



Informal settings and urban realities.

It is estimated that 80% of the total population in LAC lives in cities that are a mix of highly developed modern areas and slums (Magalhães, 2016). According to the United Nations, these are highly dense cities; in the past 20 years, there was a two-fold increase in the number of cities between 300,000 to 500,000 inhabitants (2017a). Further, the region is known for the high levels of GDP production that, together with population sizes, contributed to the development of larger urban areas meaning economic competitiveness that improved quality of life for some (United Nations, 2017a). Yet, the growth and development of cities have numerous consequences for LAC citizens, especially for women. Studies have pointed to the gender dimension of segregation given the spatial distribution of cities (Levy, 2013). LAC citizens have access to different sorts of public services. The poor have difficulty accessing public health services or the police in these areas (Santiago, Peregrín and Gonçalves, 2017).

Paradoxically, while the police rarely find their way to protect women in segregated spaces, they manage well enough to break into *favelas* to perpetuate cycles of violence. This is not to say that the police are mainly responsible for violence alone, considering that other militia groups and drug traffickers are also present in such places. There are accounts of increased police presence in these areas in attempts to pacify favelas and turn them into safe spaces by fighting militias and drug traffickers (Leite, 2012) Yet, violence is ever more present, while many have portrayed the police as targeting the black and the poor in the whole LAC region (Leite, 2012; Cevallos Izquierdo, 2020). In turn, the intensification of police presence in these communities does not mean more access to services or better quality of life for its citizens.

The living conditions of LAC citizens are aggravated by the quality of housing in informal settlements. These communities developed over hazardous areas due to high land prices, and people living in these areas are subjected to tenure security issues (Caldeira, 2017; United Nations, 2017b). The majority of these houses are made of recycled materials, just a few have access to clean water or sanitation facilities, and entire families are confined to one single room (Queiroz de Lima and de Oliveira Santos, 2018). There is, however, a diversity of housing programmes in the whole LAC region. Yet, only a few have successfully reduced the population living in informal settlements (Magalhães, 2016).

City spaces are essential, and the informal settings of cities are a constant target of public policy in the LAC region. Segregation is still an issue in most countries, and as such, it is expected that responses to the pandemic fit within the context of broader housing inequalities by accommodating the needs of the most vulnerable in society, such as those living in informal settings and especially the women.



Figure 2 Sanitation in Favela Muzema - Rio de Janeiro

Access to health services in the LAC region.

Access to primary health infrastructure is a long-standing problem in the LAC region. Studies have pointed out that the region has an average of 2.1 hospital beds per 1,000 people, with a population dependent on low medical technologies and scarce mental health assistance (OECD and The World Bank, 2020). The low numbers of hospital beds are likely the heritage of a prolonged political and democratic deficit that threatened the region until the 1980s. Investments in the public sector were severely curtailed through the 1970s and the 1980s due to the expansion of military rule, contributing to the social and economic exclusion of the poor (Atun *et al.*, 2015). After the military rule ended, countries found themselves embroiled in national debt and had to resort to help from the IMF in what was later labelled the Latin American debt crisis. The consequences of this borrowing were felt in the health sectors because countries were made to comply with neoliberal macroeconomic reforms (Atun *et al.*, 2015). By the 1980s, health care became a universal right in most LAC regions, and governments have substantially started to fund their universal health care programmes, with the exception of Chile (De Andrade *et al.*, 2015).

However, the universal right to health assistance was insufficient to avoid “*medical apartheid*” (Frenk 1988 cited in Atun *et al.*, 2015: p.1234). The called apartheid resulted from a historical trajectory of the region's health care system and development agencies. That can be divided in four phases stages that ranged from the independence of LAC countries, then the creation of Ministries of Public Health, followed by a merger of social security agencies and finally the integration of these agencies with the ministries of health by creating Ministries of Health and social security (Cotlear *et al.*, 2015).

These four phases set the stage for high political contestation. For example, the creation of a Ministry of Public Health in many countries translated to an increase in life expectancy in these areas through the overtaking of charity hospitals which coincided with a growth in employment and manufacturing (Cotlear *et al.*, 2015). The third phase of health benefits in LAC aimed to include the poor and non-salaried populations. While central governments tried to decentralise their health systems and make them more inclusive, what occurred was a deepening social segmentation. This is an important point because it helps understand how access to health became segregated in certain areas. As a result, three separated segments for health care in LAC surged, one for poor people served by the Health Ministry, one for workers served by security agencies and one for private hospitals (Cotlear *et al.*, 2015). The last phase of this transformation, described by authors as a quest for equity, was the implementation of reforms that ended in the creation of unified systems cementing the national health systems in Chile (the 1950s), Cuba (1960), Brazil (1988), and Colombia (1993) (Cotlear *et al.*, 2015).

The creation and later integration of ministries and social security agencies did not translate into more access to health care—one of the most significant barriers to access still concentrated in low government health expenditure. Accordingly, in the LAC, 45% of the total health spending comes from private spending, a trend associated with a higher GINI coefficient (Titelman, Cetrángolo and Acosta, 2015). In other words, more private expenditure means less income distribution. However, there is no magic solution to health expenditure. The system does depend on people financing it, but only a few countries have managed to successfully integrate their health system through general taxation (Titelman, Cetrángolo and Acosta, 2015). Even in these countries, the persistence of vast inequalities means that the poor figure among those with a high diabetes mortality rate, infant mortality and under mortality (De Andrade *et al.*, 2015). In other words, health segmentation contributed to more social segregation standing in the way of any project aimed to reduce inequalities (Cotlear *et al.*, 2015).

The pandemic, without a doubt, puts extra pressure on already sensible health infrastructure in the region. Given that the segregated health system or “*medical apartheid*” likely happens everywhere in LAC, it is crucial to consider the elements of such a system that affects those living in informal settings. As such, this study focuses on these responses to understand what and how the answer to this health emergency relates or is influenced by a segregated health system.

Wealth and Income in LAC

According to data collected by the Socio-Economic Database for LAC, on average, the wealthiest 10% of the LAC population earns 22 times more than the bottom 10%, while the average Gini coefficient in 2017 was 0.46 (Busso and Messina, 2020). These income disparities potentially affect future generations, severely impacting the chances of people to create a different future for themselves (Atkinson, 2015). Alternatively, income inequality seems to contribute to perpetuating poverty in the region. The results of such concentration limits the social mobility of those affected by unequal income and wealth distributions (Amarante, Galván and Mancero, 2016).

To date, there are conditional cash transfer programmes intended to support women and poor populations. To name but a few there is Brazil (*Bolsa Família*), Chile (*Chile Solidario* and *Ingreso Etico Familiar*), and Colombia (*Oportunidades*) (Atun *et al.*, 2015). Yet, even with such policies in place, there are still concerns about the impact on intergenerational mobility (Busso and Messina, 2020). It is also essential to note that in LAC, the GINI coefficients dropped significantly since the 2010s (Amarante, Galván and Mancero, 2016). However, those living in poverty (33%) and extreme poverty (12.5%) in 2020 are higher in comparison to 2010 (31.6%) and (8.7%), respectively (ECLAC, 2020). The issue lies in people being pushed across economic boundaries and the effects of income inequality itself.

One of the main consequences of the pandemic was the consistent loss of income, especially among informal and low skilled workers. In LAC, this situation is no different, with estimations pointing to more individuals at the risk of extreme poverty now in Brazil (Ribeiro-Silva *et al.*, 2020). A steep decline in income took a particular toll on black and poor women (Barroso and Gama, 2020). Given that countries already had cash transfers programmes, it is interesting to focus the case on what sort of financial help was offered through the pandemic. In other words, understand how responses to the pandemic aimed to complement, support and mitigate the effects on income inequality in LAC during the crisis and who could claim such benefits.

Narrowing to the case.

The critical discussion of these themes illustrates the notion of urban equality or the lack thereof and how that comes about in cities of the LAC region. More importantly, it helps illustrate how these inequalities, such as housing, income and access to health, are part of the historical processes that developed formal institutions within the city. Crucially and simultaneously, this is also the historical process that shapes the very existence of informal institutions in urban settings, as is the case in the surge of social safety nets given the levels of informality in urban settings in the LAC region.

Now, it is crucial to consider the role of informal institutions in countering the absence of formal responses within the spatial boundaries of informal settings. The reason for this focus is twofold.

First, these are the spaces in which urban inequality, such as unequal access to health, lack of income and formal institution negligence, happen the most – while these are also the spaces affected by the pandemic the most. Second, scholars pointed to the need to develop institutional capacity in informal settings (Simpson, 2013; UN-Habitat, 2017). If slums are perceived as a threat, we want to eradicate them (Simpson and Silva, 2020), but if we could perceive communities, favelas, informal settings, slums beyond a spatial boundary as holding the most significant inequalities in the city, perhaps we could also make it easier to achieve urban equality for all.

The responses to the pandemic in a local context permit us to rethink the favela beyond this spatial boundary. Favelas are mostly affected where public service provision is concerned. Now, it is vital to understand how urban institutions dealt with a lack of health and essential services, loss of income, housing and poverty during a health emergency crisis and what lessons one could take for the future of governance in cities.

Methodology

The key evaluative questions for this study are centred upon conditions that allow me to narrow the scope of this investigation to Rio de Janeiro. I focus on Brazil, given its institutional consolidation through democratic history and government decentralisation that shaped the formal and informal governance in the country. The development of these dualist sets of institutions in Rio de Janeiro is perhaps a determinant factor to the main inequalities present in the urban environment. For this matter, this qualitative study looks into the entanglement of formal and informal institutions present in the responses for COVID-19 in the favelas of Rio de Janeiro.

The challenge is to grasp the complexity of favelas responses for COVID-19 vis-à-vis that of formal institutions of government. There is a clear understanding of what counts as formal and informal from the theory of institutional formation (North, 1991). However, this logic of formal and informal in the city is blurred (Caldeira, 2017). As such, I propose to stretch the concept of an institution to encompass favelas without defining it as formal or informal but simply as an urban governance one. In my opinion, this understanding requires a reflective exercise upon the elements that defines favelas as more than a spatial boundary in the city.

My reflection focuses on responses to COVID-19 emerging from informal settings in Rio that are part of self-governed, self-selected and autonomous institutions. To be able to understand these elements and the constituency of a governance institution, I employ Byrne and Callaghan's (2013) complexity applied to social sciences: this is the 'framework for understanding which asserts the ontological position that much of the world and most of the social world consists of complex systems and if we want to understand it we have to understand it in those terms' (p.8).

I believe this is a fitting framework for this analysis as it was for Cielo (2010) when analysing institutions and peripheries in Bolivia because I share some of Cielo (2010) assumptions in terms of being able to understand the micro and macro structures that compose urban institutions through 'the shared creation of social practices and discourses as a focal point' (p.44) which allows me to link these institutions, urban inequality and favelas without pointing to causation or linearity between these practices.

It is established that we can understand the favela as a spatial boundary, but the complexities of favelas cannot be captured through this epistemological perspective alone (Simpson, 2013). I want to challenge this simplistic and purely spatial approach to understanding a favela by looking into favelas from an epistemological and ontological standpoint (i.e., questioning concepts, theories, perspectives and assumptions). To better understand the inner-workings of favelas, to situate the peculiarities of favelas through the 'mutual production of both the individual and social structures' (Cielo, 2010, p. 43) by analysing the collective responses to the pandemic that emerged in the favelas of Rio.

This methodological choice is important because it challenges this dualist perspective of formal and informal neighbourhoods (favela vs. bairro) which is often accompanied with a highly simplistic

and shallow understanding on favelas. A case study of the collective response of a favela to COVID-19 reveals the rich social, economic and political dimensions of a favela, which in turn can inform policies targeting favelas and can also inform political processes that shapes and define cities – by better understanding favelas we can better understand cities with favelas.

It does not seem that we can look into a favela without the urban inequalities present in that space, but that space itself does not create these inequalities. Paradoxically, favelas can be considered the spaces that fight these inequalities while dwellers endure the fundamental failures of public policies that create them. Then, by employing the complexity framework, I can focus on these entanglements of policy and urban manifestations produced by the complex development and the relationships between the subjects of policy that are capable of constantly recreating the spaces they live in (Caldeira, 2017). For this matter, I propose to look into governance as the institutions of urban settings that can design, organise and disseminate initiatives to improve the livelihood of those living in cities. This form of seeing governance is important because I want to portray governance as the ‘ life strategy adopted by actors who did not have the capacity to imagine endgames’ (Maringanti, 2020, p. 40).

Here, I also invite the reader to embrace Caldeira's (2017) peripheral urbanisation and refer to a favela as a result – or maybe even the process – of producing a space that is not bounded by physical location. I employ peripheral urbanisation because such concept surges from studies in the São Paulo peripheries which share similar conditions to the favelas of Rio de Janeiro. Also, because Caldeira's (2017) work is a rich balance of the spatial and social practices that occur in favelas. By understanding a favela not as a physical location but a place that shapes politics as well.

Because this paper is about equality in urban settings and institutions that compose these settings, it is crucial to define urban equality or the lack of it through the definitions from Frediani, Cociña and Acuto (2019) that portray urban equality as a multidimensional experience of those living in urban settings, their access to income and services, the recognition of a diversity of social identities and inclusion in decision-making processes; a definition built upon the works of Fraser (1995) and Young (1990). Similarly, I portray poverty as a multidimensional experience meaning not only absolute terms such as deprivation of income but also the relative terms dimensions in which individuals are deprived of access to essential services, education, democratic participation, housing (Wratten, 1995) as exemplified in the first sections of this paper.

Because the complexity framework requires comparison, I propose to examine the responses given to the pandemic within favelas through institutional governance. As such, I focus on these responses vis-à-vis government responses in these areas. By no means do I intend to compare favelas to formal government. I compare only the responses to the pandemic from favelas to the responses from the government. I do that through the case of local responses for COVID-19 that manifest the relationship of the invisible and the city they live in through governance.

I built this case study from data acquired from a selection of publicly available material. This material comes from various sources, including communities organisations, policy papers, reports and

interviews. The primary data comes from different grassroots organisations in favelas such as Frente Maré, Central Única de Favelas (CUFA), Instituto Marielle Franco, Favela em Pauta and several newspapers articles. This data is sometimes used in published papers containing interviews or analysed interviews from those living in these communities. Then I use a selection of material provided by Fiocruz, one of Brazil's leading public health foundations. These are a set of epidemiological bulletins that focus only on favelas and their citizens. What follows is a collection of voices and knowledge that challenges official accounts of the pandemic in Brazil.

I decisively focused on Rio de Janeiro because I am familiar with the many organisations that operate in the informal settings within the city. The advantages of focusing on a single case stem from an opportunity of voice and space in which I can employ the rich material produced by those most affected by the tragedy of the pandemic. As Maringanti (2020) poses, I aim to situate knowledge by understanding the practices of people that cannot be captured in formal politics. I believe it is necessary to give more attention to what happens in favelas through the account of *favelados*³. Then, the most appropriate way to do that is – to let the subaltern speak (Spivak, 1988) – by using material produced by them. By doing so, the aim here is to elevate the practices of the so-called informal institutions to illustrate how governance emerges from these practices.

Lastly, there are considerable limitations of approaching these themes through a single case study analysis. Issues of generalisability stem from this study, given that every single favela is different and that informal urban settings around the world would come with their particular trajectories. Yet, to offset this argument, it seems relevant to take this single case from a southern urbanist stance and understand this method as valuable precisely because it potentially permits an explicit and implicit understanding of these places' particular trajectories. But, while I can say something about the form and shape of a favela as a governance institution in Rio, without looking into the informal settings of Bolivia or even Peru, I might be limiting the comparison needed to approach this study from the complexity framework as Byrne (2005) requires. As such, the best way forward would be to include a much higher number of cases that share similar historical, political and social trajectories as those from the favelas in Rio.

³ A term associated to those living in favelas. A socio-economic prejudice term attached to those living in favelas (Simpson, 2013)

Case Study Analysis

Rio and Favelas

The favelas are home to individuals who compose the informal sectors in Brazil and the most salient urban inequalities present in the country. Rio's favelas have long been at the centre of urban government policy that intended to transform them into something they could never be. In the past, slum upgrading programmes aimed to include favelas in the formal city. The government flagship programme Favela-Bairro intended to transform the favela into a neighbourhood (Fiori and Brandão, 2009). Notably, the programme achieved international recognition by its novel integration of local individuals and its infrastructure achievements (Fiori and Brandão, 2009). Yet, it is difficult to imagine the favela becoming a neighbourhood because of the lack of public infrastructure and socio-economic spending similar to those in the neighbourhoods.

Favelas are crowded spaces while Rio de Janeiro city has a population density of 5.161 per km², Favela da Maré and Rocinha have 48.000/km² and 56.000/km² subsequently (Observatório Sebrae cited in Souza, 2020). Where health care is concerned, spatial segregation has an enormous consequence on the life of the women and informal workers in favelas (Barroso and Gama, 2020). For example, the incidence of the Zika Virus that affects women and newborns is higher in low-income areas than in other neighbourhoods in the city (Cunha *et al.*, 2020). Even if 65% of informal settings seem to be located within 2 km of a health facility in Brazil (Gracie and Scofano, 2020), it seems that these places are far from becoming what resembles a neighbourhood.

A neighbourhood would have sanitation facilities in most of its domiciles, which is not the case in favelas. Instead, the majority of favelas have no access to clean water facilities. Sanitation facilities are also an issue, and the whole sewage runs through the houses themselves (Kleiman, 1995, 2011). Even if slum upgrading programmes were always around the favelas, they never seemed to fill the most basic issues (Becerril, 2015).

I classify the case below into two sub-sections. First, a section I named filling the gap in data in which I illustrate how communities created a way to counter the government's intent to hide pandemic numbers in Brazil. Second, a sub-section called the gap beyond data discussing safety net practices with the favelas during the pandemic.

Filling the gap in data.

One example of formal institutions response failures happened when the Brazilian federal government stopped displaying the country's official count of COVID-19 cases. Instead, the government arbitrarily would focus on showing the number of those who "recovered" from COVID-19 (Sacramento, 2020). This decision to focus on the recovered cases represented one of the primary spectacles in the political circus created by the actual Brazilian president during the pandemic. Reliable

data about cases and deaths became unavailable, and it was challenging to navigate the myriad of other data sources coming from the municipal and state levels as well as from the press (Fleury and Menezes, 2020).

Because the access to health care in such areas is precarious, many suspected cases of individuals who likely died from covid were never counted in the official numbers. In some instances, the test available was not the PCR, and some of those tested cases that reported negative would later die without being counted (Angelo, Leandro and Perisse, 2020). It would happen that after a person arrived at one of the *Unidades Basicas de Saude* (UBS) or primary health care units in favelas, sometimes they would not even be offered a test (Gracie and Scofano, 2020). The situation was made worse when these units started to get busier, and only those with severe covid symptoms would be allowed inside (Valente, 2020). Here, it seems that besides the government claim that the majority of Brazilian informal settlements are located within 2km of a health service unit (Gracie and Scofano, 2020), the population living in these settlements could not access adequate health treatment even during the height of the pandemic.

The inadequacy of government policy responses and a strained health system in favelas put local responses as crucial to counter the pandemic in these places. To deal with such issues, local community groups have created a community covid data panel. These panels served two purposes. First, the panel challenged the official – or the lack of – counting by promoting a counter-narrative about the pandemic in favelas (Menezes, Magalhães and Silva, 2021). Second, it fills the gap of official data by supplying these communities with accurate numbers that help them plan and develop efficient actions to counter the pandemic in favelas (Gracie and Scofano, 2020).

These panels emerged in the context of a lack of official information and widespread misinformation in the country. Here, by analysing a series of roundtables and interviews live-streamed on YouTube, Menezes, Magalhães and Silva (2021) collected some opinions that help put this misinformation in context. The following quote was extracted from one of these panels:

“Soon after, here at Borel (Favela do Borel), in the organisation of data production, we noticed that something was happening, as many residents were dying. There were many reports of residents with the flu, but with the lack of access to the tests, we did not know what it actually was, but we were already suspicious of coronaviruses. So we did not have a policy of transparency in disclosing data. When we had access to this data and found out that they were grouped by neighbourhood (Borel and Tijuca), and as there was no Borel on the panel, we decided to create CoronaZap.” (Igor Soares, resident of Morro do Borel as in Menezes, Magalhães and Silva, 2021: p.117).

The project entitled *CoronaZap* was one of the many that surged in the main favelas of Rio de Janeiro. At least six other panels have emerged in the main favelas, some using their website and others

only on social media pages (Menezes, Magalhães and Silva, 2021). In the case of *Complexo da Maré*, a collective of 16 favelas, the panel entitled *Painel dos Invisíveis* or The Invisibles' Panel initiated together with an epidemiological bulletin. Here, the initiative collected data on self-reported and official counting and created the bulletin *de Olho no Corona*, which later integrated *Painel dos Invisíveis* as the official counting for the whole *Complexo da Maré* (Fabrício and Melo, 2020). *Redes da Maré*, a civil society organisation that represents the interests of Mare people, organised both the panel and the bulletin. In a Facebook live stream, Camila Barros, who coordinates the project, explained that:

“The objective is to understand the size of the cases of Coronavirus in Maré... We start from some sources, one of them the official municipal data Rio Covid... there is an on-site data collection from the distribution of food parcels ... the Maré network is working [in] several actions and several fronts, one of them is “de olho no corona” and the other is [the] food security. Every day there is a team in the field to distribute food parcels, which is one of the ways we have to collect [coronavirus] data. And we have what we call a group of collaborators... who are residents of several favelas in Mare, community leaders, [and] institutions that work in Mare... These people have been reporting ... suspected cases or deaths ... Then this information is placed in a database after being validated and from this database we build the numbers that we present in the weekly epidemiological bulletin. We start with official cases, which are the cases notified by the municipality, which we call confirmed cases, that is, people who had access to the test and suspected cases are cases that we identify through this direct channel of communication with residents.” (Camila Barros in Redes da Maré, 2020)

Here, what Camila Barros conveys with her explanation of the development of such tools and responses is a form of governance structure that surged to fill the lack of formal government assistance in favelas. In filling these gaps, these initiatives are challenging the narrative of the coronavirus situation in favelas while fostering what Menezes, Magalhães and Silva (2021) called a ‘social and political exchange between favelas’ (p.122). Perhaps this exchange comes to cement a new form of institution and governance relationship between these communities. They are giving structure to a self-governed, self-selected and autonomous urban institution, which has existed for some time and that we can simply call favela. These actions taken during the pandemic by *favelados* and for *favelados* seem to portray that favelas are no longer a term for the urban poor but an urban institution of governance.

This is an interesting argument to consider if looking into the aspects of peripheral urbanisation by Caldeira (2017). Here, I am considered Caldeira (2017) argument that favelas are a space for urban transformation in which residents shape their spaces through a process of constant making that signifies a transformation in social mobility. Here, it seems for me that we can apply Caldeira (2017) traversal logics of complexity as to understand the complexity in periphery during the pandemic. Even though Caldeira (2017) argue in a sense of informal construction and urban land I propose to see this logics

from a social and governance perspective as well. Accordingly, Caldeira (2017) poses that we cannot abide to the dual formal or informal logics when looking in the social aspects in such spaces. Then, when Camila Barros *Maré's*" project coordinator poses "*We start with official cases*" meaning the initiative depart from official counting in the city of Rio de Janeiro that also demonstrates the logics and complexities of peripheries.

On 9th July 2020 emerged the *Painel Unificador Covid-19 nas Favelas do Rio de Janeiro* or Covid-19 Unified Panel in Rio de Janeiro' Favelas. This initiative initially aggregated data from the already mentioned *Painel dos Invisíveis* and later from other communities through the volunteer geographic information (VIG) method (Gracie and Scofano, 2020). It is interesting to notice that this notification method through volunteers is not new and has been used in favelas for various other initiatives (Gracie and Scofano, 2020; Menezes, Magalhães and Silva, 2021). It is even more interesting to contemplate that scattered collectives came together under a central organisation to overcome their invisibility through data.

Comunidades Catalisadoras or ComCat is the organisation responsible for unifying the data collected in the whole of communities. In a press release, the organisation informed that this panel emerged not only to fight such invisibility but to aid those living in these communities to have more understanding about the COVID-19 situation and solidify a network of neighbours on fighting the virus (ComCat, 2020; Fleury and Menezes, 2020).

Aurecelia, a resident of Bangu, emphasised that

"we don't have data, so we created our own register to know our reality. To have a voice and a turn. To help us, the leaders came together." (Angelo, Leandro and Perisse, 2020, p. 5).

In turn, the work of ComCat with these communities portrays a unique method of a community organisation – and gives significance to the expression '*Nós por Nós*': 'us for ourselves' (Fleury and Menezes, 2020).

Those in favelas perceive the local responses to the pandemic as efficient methods of subsidiarity addressing the lack of formal governance. In a social media post, one of these collectives mentioned that their initiatives have no connection to government; on the contrary, "*in the absence of the State, our Cabinet has been working much better than many political institutions. This is a fact*" (Fleury and Menezes, 2020, p. 275). What also looks like a fact is that the capacity of these organisations for self-governance helped initiatives such as the panel to transcend the space of unique or localised responses to become a major unified initiative between favelas in Rio.

Here, I want to emphasise that these initiatives place a new significance on the understanding of favelas – a new meaning to the term that is given through the capacity of these places to meet their social realities by turning these needs into a capable urban institution of governance. I believe it is

possible to think in these terms considered what Caldeira (2017) argued as the entanglement of agents and the relationship between residents and institutions of urban governance. In this terms, Holston (2009) posed that unique conditions in the periphery create new democratic practices and shape new approaches to social policy and citizen participation (cited in Caldeira, 2017). Further, the possibility to understand a favela as an institution of urban governance stems from the inadequacy of formal institutional responses that portray favelas as a place in need of transformation. (Fleury and Menezes, 2020).

Even more interesting is that this transformation occurs through the use of data for *favelados* and about *favelados*. This data constructs a tale of urban development representing the complex entanglement of the city's formal and informal institutions. An entanglement already perceived by Caldeira (2017) and Holston (2009) in such spaces. Now, the evidence from the creation of COVID-19 data panels in favelas can help one understand how inequalities, solidarity and governance capacity glue the social aspects of favelas to the realities endured by its inhabitants through a quest to make themselves visible. This is precisely the moment in which the spatial meets the social. It is a moment in which urban transformation occurs through collective action and organisation that set new rules and narratives about favelas (Firmino, Pio and Vieira, 2020).

The gap beyond data.

The trajectory of the coronavirus in Brazil paints the ugly portrait of a distinct socio-economic class division in the country. The first official cases of COVID-19 in the country surged within middle class individuals that travelled abroad during February and March 2020. In Rio de Janeiro, accounts of covid infection started in the city's wealthier areas (Miranda *et al.*, 2020). Also in Rio, the first victims of the COVID-19 were among low skilled workers, namely a domestic worker and a janitor (Valim and Rasga, 2020; Barreto, 2021). A family from Leblon, one of the most expensive postal codes in Brazil, did not release the domestic worker from her obligations after suspecting they had COVID after coming back from a trip to Italy. Cleonice, a black, elder, poor woman, was the first confirmed death of COVID-19 in Rio de Janeiro (Vilarinho, 2020).

Cleonice, as many other favela residents, part of the low and informal working class in Brazil. The black, the poor, the women and the informal workers compose this class of citizens often neglected by formal policy. This neglect was no different during the pandemic, even though the Brazilian Federal government had implemented a financial aid compensation scheme; that only started a month after the pandemic took over in the country (Fleury and Menezes, 2020). The programme intended to help informal and daily wage workers to have some form of financial aid during the pandemic, but some of these workers could not access this help (Barreto, 2021). Accounts from community organisations in Rio reveal that daily wage workers would sometimes not have access to the internet, not have a phone

or even documents (Firmino, Pio and Vieira, 2020). The informal class is again a victim of the inequalities that haunt the most vulnerable.

The lockdown in Favelas was a different experience than the lockdown in the neighbourhoods. Those living in these communities were not able to properly self-isolate or practice social distancing and other preventive measures, as was being done in more affluent neighbourhoods (de Albuquerque and Ribeiro, 2020). In her account of the situation, Simone Rodrigues, a community leader, portrays that:

“Entire families are victims of structural inequality. They are forced to live in cramped rooms that barely have a bedroom separated from the living room” (Angelo, Leandro and Perisse, 2020, p. 22).

With families confined inside these spaces, access to food and basic hygiene products became difficult. Daily and informal workers did not make any money during the pandemic, and the situation was much worse for those that could not access the *Auxilio Emergencial*⁴, as it was the case for Cristina Maia, a resident of Parque Uniao that got her benefits approved after a long three months wait from when she first applied (Angelo, Leandro and Perisse, 2020). In such a situation, again, the communities of Rio de Janeiro organised responses to tackle the lack of public response on a diversity of fronts. On different occasions, the population counted on donations for food and money, free judicial consultation, psychological assistance, and even community sanitation initiatives (Barbosa *et al.*, 2020).



⁴ The emergency aid approved by the National Congress and is a benefit to guarantee a minimum income to Brazilians in a more vulnerable situation during the Covid-19 (Ministério da Cidadania, 2021)

One of the main sanitation initiatives occurred in Santa Marta with the Sanitation Action in the Santa Marta Favela. This initiative started on the 5th of April 2020 with an equipment donation intended to sanitise the alleys in Santa Marta led by the brothers Thiago & Tandy Firmino (Mano, 2020). Thiago is a known active member of Santa Marta and is the head of another initiative called *Alerta Santa Marta*, a WhatsApp group that serves as a species of ombudsman for the locals and aggregates the public services and neighbourhoods complaints (Mano and Freire-Medeiros, 2020). Thiago drove much mediatic attention to its initiative in Santa Marta yet counted with no municipal or state government (Mano, 2020).

No formal aid from the government did not stop these initiatives to evolve and multiply across other communities. In turn, this sheds light again on the immense capacities of articulation among these communities. As Firmino poses:

“The favela is always forgotten. Anything that happens in the city, the favela is always the last to receive any benefit. Healthcare is precarious and the question of public hygiene and trash is also precarious.” (Moraes, 2020)



Figure 4 Resident Fills up Tiago Firmino Tank in Santa Marta photo by Ricardo Moraes

Given the mediatic attention of sanitation of alleys in Santa Marta and the other initiatives such as data panels ongoing in other places, communities came together to develop a unified response to coronavirus in Rio’s favelas (Fleury and Menezes, 2020). Yet, these responses depend heavily on

resources that are sometimes not available to all of these communities. The problem seems to vary from the lack of support from the government, lack of money and even lack of volunteers to make these initiatives happen as Firmino explains:

“we were training people from other favelas, articulating and trying to encourage groups to gather together to buy equipment and do it in each other's favela.” (Mano and Freire-Medeiros, 2020)

Initiatives such as the sanitation of alleys are new, but community organisation portraying these safety nets is not new in most favelas in Rio. These initiatives occurred throughout the years and only intensified during the pandemic (De Araujo, 2020). That was the case with the collective organisation called *As Comadres*; before the pandemic, the group supported girls and now gathered and distributed food parcels (Peres, 2020). In turn, this capacity of organisation and articulation demonstrates the readiness and preparedness, the autonomy and stability achieved in these organisations by the lack of formal government initiatives in these areas. Here, it is interesting to consider what McFarlane (2008) called a relation between urban fabric and social change – or, the social agency that surge in these places given the capacity and abilities of favela residents. It seems for me that the cleaning action from *Santa Marta* and the food parcels given by *As Comadres* share the same capacity of community organisation that places safety nets in favelas as primal example of governance in these places.

Safety nets are essential for the survival and development of those living in favelas. Valim and Rasga (2020) posed that there was no specific government strategy to tackle hunger during the pandemic. In such a situation, dwellers united their resources to gather essential food parcels and other basic hygiene supplies. This was the case in *Realengo*, where an initiative called *Funk Solidário* gathered around 1.5k food parcels for the community (Barbosa *et al.*, 2020). *Realengo* is not alone in fighting hunger during the pandemic. An estimate from *Observatório das Favelas*, a local group, counted around 113 food security initiatives that happened in favelas by December 2020 (Braga *et al.*, 2020). The development of such social safety nets are only made possible through local knowledge and community participation (Fleury and Menezes, 2020)

However, to close the gap left by formal government responses, community action needs more support from outside the favelas. Besides the success of such initiatives to tackle hunger and the lack of data about the pandemic, these responses need external finance to survive. Accordingly, *Observatório das Favelas* estimates that 83% of these initiatives depend on private funding to maintain their existence (Braga *et al.*, 2020). This trend indicates that the lack of formal government assistance is not near to being closed by such initiatives. On a comparison to formal government response, this gap is also not to be closed by the narrow perception of these place into something to be converted into formal cities as it is the case in neighbourhoods upgrade programmes that discount residents' living forms and turn them into less deserving members of society (Segre, 2009).

Favelas as an institution or institutional response from favelas?

We cannot fully consider favelas without addressing the complexities of the issues surrounding and composing favelas. As spatial boundary, favelas are the key urban manifestation of informality in LAC; a dense space in which the invisible suffer from conflict, gang violence and structural violence. Furthermore, a space in which access to health care is precarious, and many died during the pandemic without even having access to a COVID-19 test. These issues are part of the inequalities that stem from a long history of public policy failure.

We can, however, look at the favelas as a governance institution because they increased capacity to fight these inequalities in the city. A capacity that is perhaps the result of a space that Caldeira (2017) argues is not bounded by physical location. In fact, it could not be bounded by physical location if one considers the multidimensional poverty and inequalities present in cities. Then, what the initiatives in Rio's communities during the pandemic portray is an ugly, depressing picture of reality. Their capacities to fight inequalities in a city become what Maringanti (2020) called a life strategy.

The organisation of data panels and the safety nets that arose during the pandemic in Rio are a paradox of urban institutions. While working to save lives in favelas by a primal example of institutional governance, it also represents a failure of formal institutional government. Alternatively, although perceived by dwellers as efficient methods of governance, it illustrates that the capacity for policy delivery from the formal government is still a problem in Brazil even after the constitution of 1988. There is a particular role to local organisations in urban governance, but that role cannot substitute for government policy.

In sum, this case helps illustrate the progression of favelas from an ontological and epistemological perspective. It helps to elevate the perceptions of favelas not as a threat and not as a spatial boundary. In turn, this discussion makes the case to add an important governance actor to the theory of urban institutions.

Conclusion and Recommendations

This paper argued for a new understanding of favelas as an institution of urban governance that surges from the entanglement of formal and informal institutions and inequalities in the city. This understanding was only possible by reflecting on the complexities of politics and socio-economic realities of urban dwellers; realities that are part of the social and spatial configurations that historically form and shape the existence of institutions in LAC.

Through this paper the case of local responses to the pandemic in the informal settings of Rio de Janeiro illustrated how one can perceive favelas as no longer only a manifestation of informality but as an institution of its own. Specifically, favelas progressed from a spatial boundary (Magalhães, 2016) to a capable institution aiming for urban equality through the design and implementation of solutions in the absence of formal government. This argument was only possible given the examples of self-governance and self-organisation that surged in Rio's favelas during the pandemic. But, it seems reasonable to understand that these initiatives are not new and that these communities demonstrated these governance capacities in a variety of occasions in the past.

The answer to the main question guiding this research stems from three institutional conditions that allowed local organisations to advance urban equality throughout the pandemic. First, a condition stemming from formal government institution's failure to deliver policy to urban dwellers and informal settings. Second, a condition of inadequate access to health and sanitation facilities that push dwellers to create a parallel control over numbers and narratives regarding the pandemic in favelas. Third, a structural inequality that portray favelas as a threat to be perceived by formal institutions as something that must be fixed.

This answer leads to a contribution to the academic and societal understanding of urban settings in Brazil. Academically, it challenges a dualist perspective of the role of formal or informal institutions in the city by considering the spatial and social dimensions in which these roles develop. For example, perhaps if urban dwellers could access adequate health services in favelas there would never be a need for a communal data panel. Societally, this answer enables one to see how the experience of poverty and inequality twists the roles of organisations and institutions of the urban into a complex relationship; a relationship that is constant changing through the interaction of actors and institutions alike.

This case analysis is subject to at least three important limitations to consider. This study is limited to Rio de Janeiro; therefore, it is difficult to aim for a generalisation of these arguments of perceiving a favelas as an institution for the whole of favelas in Brazil. The major limitation of this study stems from the fact that it was done through secondary data analysis. As such, no input from these organisations or dwellers could be considered when discussing these findings. In this sense, the element of confirmation of the findings, triangulation or member check is missing from the results of this analysis. That entails the question, would *favelados* perceive a favela as an institution of governance? Perhaps this question can be explored in a future study.

Lastly, this paper contains important implications for work within favelas in the future. As the case study highlights there are several organisations can represent the interest of urban dwellers in favelas. In the future, studies must try and aggregate the perspectives of these different organisations by capturing their uniqueness, because as the case shows, not all of these organisations that appear in the favela context are interconnected. Furthermore, from a methodological stance it will be interesting to engage with Byrne's (2005) complexity when studying these organisations to be able to expand on the experience of urban dwellers.

Bibliography

- Acemoglu, D. and Robinson, J. A. (2012) *Why Nations Fail*. Profile Books.
- Acuña, C. and Bolis, M. (2005) ‘Stigmatization and access to health care in Latin America: Challenges and perspectives’, *Trabajo presentado en el XXIX Congress of the ...*, (July 2005). Available at: <http://www.heart-intl.net/HEART/120606/Stigmatization&Accessto.pdf>.
- de Albuquerque, M. V. and Ribeiro, L. H. L. (2020) ‘Inequality, geographic situation, and meanings of action in the COVID-19 pandemic in Brazil’, *Cadernos de Saude Publica*, 36(12), pp. 1–14. doi: 10.1590/0102-311X00208720.
- Amarante, V., Galván, M. and Mancero, X. (2016) ‘Inequality in Latin America: A global measurement’, *CEPAL Review*, 2016(118), pp. 25–44. doi: 10.18356/a7337ed5-en.
- De Andrade, L. O. M. *et al.* (2015) ‘Social determinants of health, universal health coverage, and sustainable development: Case studies from Latin American countries’, *The Lancet*, 385(9975), pp. 1343–1351. doi: 10.1016/S0140-6736(14)61494-X.
- Angelo, J. R., Leandro, B. B. da S. and Perisse, A. R. S. (2020) ‘Boletim Socioepidemiológico da COVID-19 nas favelas.’ Rio de Janeiro: Fiocruz, p. 47.
- De Araujo, M. B. (2020) ‘Na Linha De Frente Da Covid-19 Nas Favelas Cariocas’, *Revista Inter-Legere*, 3(28), p. c21578. doi: 10.21680/1982-1662.2020v3n28id21578.
- Atkinson, A. B. (2015) *Inequality: What can be done?* London: Harvard University Press.
- Atun, R. *et al.* (2015) ‘Health-system reform and universal health coverage in Latin America’, *The Lancet*, 385(9974), pp. 1230–1247. doi: 10.1016/S0140-6736(14)61646-9.
- Barbosa, J. *et al.* (2020) *Quilombismo e lideranças femininas: O protagonismo das favelas no enfrentamento a pandemia*. 10. Rio de Janeiro.
- Barreto, A. C. de J. (2021) ‘Resistir para existir: A luta da população negra brasileira contra a COVID-19’, *Mundo Livre: Revista Multidisciplinar*, 7(1), pp. 209–229. Available at: <https://periodicos.uff.br/mundolivres/article/view/47803>.
- Barroso, H. C. and Gama, M. S. B. (2020) ‘A crise tem rosto de mulher: como as desigualdades de gênero particularizam os efeitos da pandemia do COVID-19 para as mulheres no Brasil’, *Revista do CEAM*, 6(1), pp. 84–94. doi: <https://doi.org/10.5281/zenodo.3953300>.
- Becerril, H. (2015) ‘Slum upgrading role for housing policy and governance transformations. From Favela-Bairro to Morar Carioca, investigating the case of Rio de Janeiro in Brazil’, (January), p. 299. Available at: <https://discovery.ucl.ac.uk/id/eprint/1460298/>.
- Braga, A. *et al.* (2020) *Ações Populares de Combate a Pandemia no Rio de Janeiro: A favela como referência*. 11. Rio de Janeiro.
- Busso, M. and Messina, J. (2020) *The Inequality Crisis: Latin America and the Caribbean at the Crossroads*, *The Inequality Crisis: Latin America and the Caribbean at the Crossroads*. doi: 10.18235/0002629.
- Byrne, D. (2005) ‘Complexity, configurations and cases’, *Theory, Culture and Society*, 22(5), pp. 95–111. doi: 10.1177/0263276405057194.
- Byrne, D. and Callaghan, G. (2013) ‘Hunting causes in a’, in *Complexity Theory and the Social Sciences: The State of the Art*.
- Caldeira, T. P. R. (2017) ‘Peripheral urbanization: Autoconstruction, transversal logics, and politics in cities of the global south’, *Environment and Planning D: Society and Space*, 35(1), pp. 3–20. doi: 10.1177/0263775816658479.
- Canagarajah, S. and Sethuraman, S. V. (2001) ‘Social protection and the informal sector in developing countries: Challenges and opportunities. Social Protection Discussion Paper Series, no. 0130’, *Social Protection Discussion Paper Series no. 0130*, (0130), p. 94. Available at:

<http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Labor-Market-DP/0130.pdf>.

Castells, M. (1992) 'The Informational City: Economic Restructuring and Urban Development [Paperback]', p. 416. Available at: <http://www.amazon.com/The-Informational-City-Restructuring-Development/dp/0631179372>.

Castiglione, D., Lovasi, G. S. and Carvalho, M. S. (2018) 'Perceptions and Uses of Public and Private Health Care in a Brazilian Favela', *Qualitative Health Research*, 28(1), pp. 159–172. doi: 10.1177/1049732317739611.

Cevallos Izquierdo, E. C. (2020) *Uso progresivo de la fuerza policial*. Universidad Andina Simón Bolívar. Available at: <http://repositorio.uasb.edu.ec/bitstream/10644/7568/1/T3281-MDE-Cevallos-Uso.pdf>.

Chen, M. and Carré, F. (2020) *The Informal Economy Revisited: Examining the Past, Envisioning the Future, The Informal Economy Revisited*. Edited by M. Chen and F. Carré. Oxon: Routledge.

Chieffi, A. L. and Barata, R. B. (2009) "'Judicialization" of public health policy for distribution of medicines', *Cadernos de Saude Publica*, 25(8), pp. 1839–1849. doi: 10.1590/s0102-311x2009000800020.

Cielo, M. C. M. (2010) *The City Effect: Urban Institutions, Peripheries and Political Participations in Bolivia*, UC Berkeley Electronic Theses and Dissertations. University of California, Berkeley.

Cociña, C. *et al.* (2019) 'Knowledge translation in global urban agendas: A history of research-practice encounters in the Habitat conferences', *World Development*, 122, pp. 130–141. doi: 10.1016/j.worlddev.2019.05.014.

ComCat (2020) 'Respostas à Covid-19 Partem da Sociedade Civil nas Favelas. O Problema dos Dados: Introduzindo o Pannel Unificador Covid-19 nas Favelas.' Rio de Janeiro: Comunidades Catalisadoras, pp. 19–21. Available at: <https://comcat.org/covid-pannel-release-01/>.

Cotlear, D. *et al.* (2015) 'Overcoming social segregation in health care in Latin America', *The Lancet*, 385(9974), pp. 1248–1259. doi: 10.1016/S0140-6736(14)61647-0.

Cunha, L. S. *et al.* (2020) 'Relationship between social inequality indicators and the spatial distribution of zika virus cases', *Ciencia e Saude Coletiva*, 25(5), pp. 1839–1850. doi: 10.1590/1413-81232020255.34642019.

ECLAC (2020) *Social Panorama of Latin America, LC/PUB.2021/2-P/Rev.1*. Santiago.

Fabrizio, B. F. and Melo, G. C. V. de (2020) "'Us for Ourselves": Enregistering and De-escalating Coronavirus Under Nervous Conditions', *Trabalhos em Linguística Aplicada*, 59(3), pp. 1884–1915. doi: 10.1590/010318138362911120201117.

Fiori, J. and Brandão, Z. (2009) 'Spatial strategies and Urban social policy: Urbanism and poverty reduction in the favelas of Rio de Janeiro', in *Rethinking the Informal City: Critical Perspectives from Latin America*, pp. 181–205.

Firmino, R., Pio, D. and Vieira, G. (2020) 'Revolução periférica dos dados em tempos de pandemia global', *Revista de Morfologia Urbana*, 8(1), p. e00156. doi: 10.47235/rmu.v8i1.156.

Fleury, S. and Menezes, P. (2020) 'Pandemia nas favelas: entre carências e potências', *Saúde em Debate*, 44(Especial 4), pp. 267–280. doi: 10.1590/0103-11042020e418.

Fraser, N. (1995) 'From Redistribution to Recognition? Dilemmas of Justice in a "Post-Socialist" Age', *New Left Review*, (212), pp. 68–93.

Fraser, N. (2000) 'Rethinking recognition', *New Left Review*, pp. 107–118.

Frediani, A. A., Cociña, C. and Acuto, M. (2019) *Translating knowledge for urban equality: alternative geographies for encounters between planning research and practice*. Available at: www.urban-know.com/resources.

Freije, S. (2005) 'Informal Employment in Latin America and the Caribbean : Causes, Consequences and Policy Recommendations', *Labor Markets Policy Briefs Series*, (January 2001), p. 2005.

Gracie, R. and Scofano, A. (2020) 'Nota Técnica 1'. Rio de Janeiro: Painel Unificador Covid-19 nas Favelas, p. 19.

Holston, J. (2009) 'Insurgent citizenship in an Era of global urban peripheries', *City and Society*, 21(2), pp. 245–267. doi: 10.1111/j.1548-744X.2009.01024.x.

Kleiman, M. (1995) 'Análise da Efetividade Social da Implantação de Redes de Água e Esgoto em Favelas e Seus Impactos na Redefinição das Tipologias Habitacionais e Nos Espaços Públicos e Privados : O Caso da Favela do Cantagalo no Rio De Janeiro'.

Kleiman, M. (2011) 'A Implantação De Redes De Água E Esgoto Em Favelas Do Rio De Janeiro-Brasil , E a Problemática Da Ordenação Do Território', in *VII Congreso Ibérico sobre Gestión y Planificación del Agua*. Talavera de la Reina: Instituto de Pesquisa e Planejamento Urbano e Regional da Universidade Federal do Rio de Janeiro-IPPUR/UFRJ, pp. 1–7.

Leite Lessa Chaves, R. L. (2019) 'Agentes do conflito ambiental e suas práticas espaciais: O caso da APARU-ABV, uma unidade de conservação municipal no Rio de Janeiro (RJ)', *AMBIENTES: Revista de Geografia e Ecologia Política*, 1(1), p. 246. doi: 10.48075/amb.v1i1.22692.

Leite, M. P. (2012) 'Da “metáfora da guerra” ao projeto de “pacificação”: favelas e políticas de segurança pública no Rio de Janeiro', *Revista Brasileira de Segurança Pública*, 2(11), pp. 374–388. Available at: <http://revista.forumseguranca.org.br/index.php/rbsp/search/results>.

Levy, C. (2013) 'Travel choice reframed: “deep distribution” and gender in urban transport', *Environment and Urbanization*, 25(1), pp. 47–63. doi: 10.1177/0956247813477810.

Magalhães, F. (2016) *Slum Upgrading and Housing in Latin America, Slum Upgrading and Housing in Latin America*. New York.

Mano, A. (2020) 'Sanitização comunitária na favela Santa Marta/RJ', in *I Seminário Nacional – Urbanismo, Espaço e Tempo Temática: Cidade, Pandemia e Cotidiano*. São Paulo: Universidade de São Paulo, pp. 1–5.

Mano, A. and Freire-Medeiros, B. (2020) 'Sanitização comunitária, articulações e trocas de conhecimentos para “cuidar dos nossos”: Entrevista com Thiago Firmino, liderança da favela Santa Marta, Rio de Janeiro', *DILEMAS: Revista de Estudos de Conflito e Controle Social*, (Reflexoes na Pandemia), pp. 1–17.

Maringanti, A. (2020) 'Seizing the Day for Southern Urbanism: Reflections from the Lockdown', *Urbanisation*, 5(1), pp. 37–42. doi: 10.1177/2455747120970803.

McFarlane, C. (2008) 'Urban shadows: Materiality, the “Southern city” and urban theory', *Geography Compass*, 2(2), pp. 340–358. doi: 10.1111/j.1749-8198.2007.00073.x.

Meagher, K. (2007) 'Introduction: Special Issue on “Informal Institutions and Development in Africa”', *Africa Spectrum*, 42(3), pp. 405–418. Available at: <https://www.jstor.org/stable/40175202>.

Menezes, P. V., Magalhães, A. A. de and Silva, C. A. F. da (2021) 'Painéis comunitários: a disputa pela verdade da pandemia nas favelas cariocas', *Horizontes Antropológicos*, 27(59), pp. 109–128. doi: 10.1590/s0104-71832021000100006.

Ministério da Cidadania (2021) *Auxílio Emergencial*. Available at: <https://www.gov.br/cidadania/pt-br/servicos/auxilio-emergencial> (Accessed: 10 October 2021).

Miranda, P. *et al.* (2020) 'Aspectos socioeconômicos da Covid-19: o que dizem os dados do Município do Rio de Janeiro? TT - Nota Técnica n. 72 (Diset) : Aspectos socioeconômicos da Covid-19 : o que dizem os dados do Município do Rio de Janeiro?', *Nota Técnica / IPEA. Diset*, 72, p. 20. Available at:

http://repositorio.ipea.gov.br/bitstream/11058/10155/1/NT_72_Diset_AspecSocioeconCOVID-

19RJ.pdf.

Moraes, R. (2020) *Brazil 'Ghostbuster' deep cleans favela streets to fight coronavirus*, *Reuters*. Available at: <https://www.reuters.com/article/us-health-coronavirus-brazil-tourguide-idUSKCN21S246> (Accessed: 5 October 2021).

North, D. C. (1991) 'Institutions Published by : American Economic Association Institutions', *The Journal of Economic Perspectives*, 5(1), pp. 97–112.

OECD and The World Bank (2020) *Health at a Glance: Latin America and the Caribbean 2020*, *Health at a Glance: Latin America and the Caribbean 2020*. Paris. doi: 10.1787/6089164f-en.

Oviedo Hernandez, D. and Dávila, J. D. (2016) 'Transport, urban development and the peripheral poor in Colombia - Placing splintering urbanism in the context of transport networks', *Journal of Transport Geography*, 51, pp. 180–192. doi: 10.1016/j.jtrangeo.2016.01.003.

De Pádua Cavalcanti Bastos, M. A. *et al.* (2020) 'O estado de exceção nas favelas: perspectivas biopolíticas a partir da pandemia do covid-19', *Revista Augustus*, 25(51), pp. 113–129. doi: 10.15202/1981896.2020v25n51p113.

Peres, A. C. (2020) 'Favelas Contra O Vírus', *Radis*, 212, pp. 20–25.

Queiroz de Lima, J. S. and de Oliveira Santos, J. (2018) 'Precarious settlements in a regional metropolis of northeast Brazil: the case of the Fortaleza city, Ceará state', *Caminhos de Geografia*, 19(67), pp. 289–303.

Redes da Maré (2020) 'Boletim "De Olho no Corona!" e lançamento do "Painel dos Invisíveis"'. Brazil.

Ribeiro-Silva, R. de C. *et al.* (2020) 'Covid-19 pandemic implications for food and nutrition security in Brazil', *Ciencia e Saude Coletiva*, 25(9), pp. 3421–3430. doi: 10.1590/1413-81232020259.22152020.

Rico, M. N. and Segovia, O. (2018) *¿Quién cuida en la ciudad? Aportes para políticas urbanas de igualdad*. Santiago: CEPAL Comisión Económica para América Latina y el Caribe. Available at: https://repositorio.cepal.org/bitstream/handle/11362/42424/1/S1700617_es.pdf.

Roy, A. (2009) 'Strangely familiar: Planning and the worlds of insurgence and informality', *Planning Theory*, 8(1), pp. 7–11. doi: 10.1177/1473095208099294.

Sacramento, J. (2020) 'Números, casos e (sub)notificações: a vigilância epidemiológica e o boletim epidemiológico como tecnologias do biopoder.', *Cadernos de Campo (São Paulo - 1991)*, 29, pp. 182–193. doi: 10.11606/issn.2316-9133.v29isuplp182-193.

Santiago, M. A., Peregrín, F. M. M. and Gonçalves, H. S. (2017) 'Jardín de historias: Releer la violencia hacia la mujer en una favela carioca Marisa Antunes Santiago', *AIBR Revista de Antropología Iberoamericana*, 12(1), pp. 77–102. doi: 10.11156/aibr.120105.

Scartascini, C. G., Stein, E. H. and Tommasi, M. (2012) 'Political Institutions, Intertemporal Cooperation, and the Quality of Policies', *SSRN Electronic Journal*, (April). doi: 10.2139/ssrn.1821914.

Segre, R. (2009) 'Formal-informal connections in the favelas of Rio de Janeiro: The favela-bairro programme', in Hernández, F., Kellett, P., and Allen, L. (eds) *Rethinking the Informal City: Critical Perspectives from Latin America*. Berghahn Books, pp. 163–179.

Simpson, M. D. (2013) 'Urbanising favelas, overlooking people: Regressive housing policies in Rio de Janeiro 's progressive slum upgrading initiatives', *The Bartlett Development Planning Unit*, (155), p. 38. Available at: www.bartlett.ucl.ac.uk/dpu/latest/publications/dpu-papers.

Simpson, M. D. and Silva, I. (2020) *Rio de Janeiro's Favelas: A Status Update from the South*, *Urbanet*. Available at: <https://www.urbanet.info/rio-de-janeiros-favelas-a-status-update-from-the-south/> (Accessed: 12 October 2021).

Souza, B. (2020) *Isolamento e quarentena são possíveis nas favelas?*, *Data Labe*. Available at: <https://datalabe.org/junto-e-misturado-isolamento-e-quarentena-sao-possiveis-nas-favelas/>

(Accessed: 13 October 2021).

Spink, P. K. *et al.* (2008) 'Decentralization and the subnational state', in *Governance in the Americas: Decentralization, Democracy, and Subnational Government in Brazil, Mexico, and the USA*. University of Notre Dame Press, pp. 1–37. doi: 10.2307/j.ctv14rms0c.6.

Spivak, G. C. (1988) 'Can the Subaltern Speak?', in Nelson, C. and Grossberg, L. (eds) *Marxism and the Interpretation of Culture*. Chicago: Urbana: University of Illinois Press, pp. 271–313.

Stein, E. and Tommasi, M. (2008) *Policymaking in Latin America: How politics shapes policies.*, *Inter-American Development Bank*. New York: David Rockefeller Center for Latin American Studies Harvard University.

The World Bank (2021) *Data: The World Bank*. Available at: <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=ZJ> (Accessed: 9 June 2021).

Titelman, D., Cetrángolo, O. and Acosta, O. L. (2015) 'Universal health coverage in Latin American countries: How to improve solidarity-based schemes', *The Lancet*, 385(9975), pp. 1359–1363. doi: 10.1016/S0140-6736(14)61780-3.

UN-Habitat (2017) *Urban governance, capacity and institutional development, HABITAT policy paper 4*. Available at: [http://habitat3.org/wp-content/uploads/Habitat III Policy Paper 4.pdf](http://habitat3.org/wp-content/uploads/Habitat%20III%20Policy%20Paper%204.pdf).

UN Habitat III (2016) *Urban Spatial Strategies: Land Market and Segregation*. Available at: [https://www.csb.gov.tr/db/habitat/editordosya/file/POLICY PAPER-SON/PU6- urban spatial strategies- land market and segregation.pdf](https://www.csb.gov.tr/db/habitat/editordosya/file/POLICY%20PAPER-SON/PU6-urban%20spatial%20strategies-land%20market%20and%20segregation.pdf).

United Nations (2017a) *Habitat III Regional Report - Latin America and The Caribbean - Sustainable Cities with Equality*.

United Nations (2017b) *New Urban Agenda*. United Nations A/RES/71/256*. Available at: www.habitat3.org.

Valente, J. (2020) *Covid-19: ministério muda protocolo de atendimento em posto de saúde: Regras dizem respeito ao atendimento de pacientes sintomáticos, Agência Brasil*. Available at: <https://agenciabrasil.ebc.com.br/saude/noticia/2020-03/covid-19-ministerio-muda-protocolo-de-atendimento-em-posto-de-saude> (Accessed: 13 October 2021).

Valim, M. and Rasga, M. (2020) *Cidades : dilemas , desafios e perspectivas*. Rio de Janeiro: Universidade Veiga de Almeida.

Vilarinho, G. (2020) 'A segurança e o outro nos tempos do coronavírus', *REVISTA ESTUDOS LIBERTÁRIOS (REL)*, 2(4).

de Vries, P. (2016) 'Participatory slum upgrading as a disjunctive process in Recife, Brazil: Urban coproduction and the absent ground of the city', *Singapore Journal of Tropical Geography*, 37(3), pp. 295–309. doi: 10.1111/sjtg.12156.

Vuletin, G. (2008) 'Measuring the Informal Economy in Latin America and the Caribbean; Guillermo Vuletin; IMF Working Paper 08/102; April 1, 2008'.

Wratten, E. (1995) 'Conceptualizing urban poverty', *Environment & Urbanization*, 7(1), pp. 11–38. doi: 10.1177/095624789500700118.

Young, I. M. (1990) *Justice and the Politics of Difference, Journalism and Communication Monographs*. PRINCETON UNIVERSITY PRESS.