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Do State capacity dimensions differently affect policy areas' performance? An analysis of bureaucrats' perspective

As capacidades estatais afetam de maneira diferente o desempenho de setores de políticas públicas? Uma análise da perspectiva dos burocratas

¿Las capacidades estatales afectan de manera diferente el desempeño de las áreas de políticas públicas? Un análisis de la perspectiva de los burócratas

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ABSTRACT:

Research objective: To investigate the effects of key state capacity dimensions on governmental performance and whether they differ among policy sectors. More specifically, we map which dimensions of state capacity are critical for successful governmental outputs.

Theoretical Framework: Grounded in the neo-Weberian bureaucracy and public governance debates, the inquiry tests if policy sectors (government core; infrastructure; productive development; security/citizenship, and social/environmental) present different state capacities and produce heterogeneous effects on outputs and outcomes.

Methodology: The research uses a survey applied to over three thousand civil servants of the Brazilian federal public administration to create composite variables of performance and state capacities dimensions, then descriptively compare these variables and run a multivariate regression to test the hypotheses.

Results: The paper confirms that the degree of state capacity development impacts the bureaucrats' perception of performance and, secondly, these effects are quite diverse on the organizational outputs and outcomes. However, their variation among policy areas is not as expressive as expected. The findings reinforce recent studies that claim that governmental investment in state capacity became broader and more inclusive as it incorporated several agencies that do not belong to the classical "pocket of efficiency."

Originality: Based on an original dataset, the research shows insights at advancing the study of state capacity, governance, and public sector performance. The comparative analyzes are unprecedented as it simultaneously encompasses crucial dimensions of Brazil's public service, such as meritocracy, autonomy, relationship, skills, resources, and accountability.

Theoretical and Practical Contributions: In theoretical terms, the paper tests essential hypotheses concerning the federal government bureaucracy and performance, mostly restricted to the international literature. It also explores the policy sectors' heterogeneity and how it affects their performance, highlighting the need for a more inclusive and comprehensive civil service and management policy.

KEYWORDS: state capacity, performance, governance, bureaucracy, policy sectors.

RESUMO:

Objetivo da pesquisa: Investigar os efeitos das principais dimensões da capacidade estatal sobre o desempenho governamental e como se diferem entre os setores de políticas públicas. Mais especificamente, como são mapeadas as dimensões da capacidade estatal críticas para resultados governamentais.

Enquadramento teórico: Fundamentado na literatura de burocracia neoweberiana e nos debates sobre governança pública, o artigo testa se os setores de política (núcleo do governo; infraestrutura; desenvolvimento produtivo; segurança/cidadania e social/ambiental) apresentam diferentes capacidades e produzem resultados heterogêneos.

Metodologia: A pesquisa utiliza dados de um *survey* com mais de três mil servidores da administração pública federal brasileira para criar variáveis compostas das dimensões de desempenho e capacidades estatais; em seguida, compara descritivamente essas variáveis e roda uma regressão multivariada para testar as hipóteses.

Resultados: O estudo confirma que o grau de desenvolvimento da capacidade estatal impacta a percepção de desempenho dos burocratas e, em segundo lugar, esses efeitos são bastante diversos nos resultados e impactos organizacionais. No entanto, a variação entre as áreas de política não é tão expressiva quanto o esperado. As descobertas reforçam estudos recentes que afirmam que o investimento governamental na capacidade estatal se tornou mais amplo e inclusivo à medida que incorporou várias agências que não pertencem aos clássicos “bolsões da eficiência”.

Originalidade: Com base em um conjunto de dados original, a pesquisa mostra percepções sobre o avanço do estudo da capacidade estatal, governança e desempenho do setor público. As análises comparativas são inéditas, pois englobam simultaneamente dimensões cruciais do serviço público no Brasil, como meritocracia, autonomia, relacionamento, competências, recursos e accountability.

Contribuições teóricas e práticas: Em termos teóricos, o artigo testa hipóteses essenciais sobre a burocracia e o desempenho no governo federal, em sua maioria restritas à literatura internacional. Ele também explora a heterogeneidade dos setores de políticas públicas e, como isso afeta seu desempenho, evidenciando a necessidade de políticas de gestão pública mais inclusivas e abrangentes.

PALAVRAS-CHAVE: capacidade estatal, desempenho, governança, burocracia, setores de políticas públicas.

RESUMEN:

Objetivo de la investigación: Investigar los efectos de las dimensiones clave de la capacidad estatal sobre el desempeño gubernamental y si difieren entre los sectores de políticas públicas. Más específicamente, tenemos mapeamos de las dimensiones de la capacidad estatal que son críticas para los resultados gubernamentales.

Marco teórico: Basado en la literatura de la burocracia neoweberiana y los debates sobre gobernanza pública, el artículo testa si los sectores políticos (núcleo del gobierno; infraestructura; desarrollo productivo; seguridad/ciudadanía y social/ambiental) tienen capacidades diferentes y producen resultados heterogéneos.

Metodología: La encuesta utiliza datos de un *survey* con más de tres mil servidores públicos federales brasileños para crear variables compuestas de las dimensiones de desempeño y capacidades estatales, luego compara descriptivamente estas variables y ejecuta una regresión multivariada para probar las hipótesis.

Resultados: El artículo confirma que el grado de desarrollo de la capacidad estatal impacta en la percepción del desempeño de los burócratas y, en segundo lugar, estos efectos son bastante diferentes en los resultados e impactos organizacionales. Sin embargo, la variación entre áreas políticas no es tan significativa como se esperaba. Los hallazgos refuerzan estudios recientes que afirman que la inversión gubernamental en capacidad estatal se ha vuelto más amplia e inclusiva, ya que ha incorporado varias agencias que no pertenecen a los clásicos “focos de eficiencia”.

Originalidad: basada en un conjunto de datos original, la investigación muestra percepciones sobre el progreso del estudio de la capacidad estatal, la gobernanza y el desempeño del sector público. Los análisis comparativos no tienen precedentes, ya que abarcan simultáneamente dimensiones cruciales del servicio público en Brasil, como la meritocracia, la autonomía, las relaciones, las habilidades, los recursos y la rendición de cuentas.

Contribuciones teóricas y prácticas: En términos teóricos, el artículo prueba hipótesis esenciales sobre la burocracia y el desempeño en el gobierno federal, en su mayoría restringidas a la literatura internacional. También explora la heterogeneidad de los sectores de políticas públicas y cómo afecta su desempeño, destacando la necesidad de políticas de gestión pública más inclusivas e integrales.

PALABRAS CLAVE: capacidad del estado, actuación, gobernanza, burocracia, sectores de políticas.

INTRODUCTION

The idea of state capacity involves the concept of effectiveness, i.e., translating the ability of governments to mobilize multiple resources to achieve organizational goals (Christensen & Gazley, 2008; Gomide and Pires 2016). In this sense, a key question in the agenda is: What state capacities are needed for governments to accomplish their organizational missions and policy proposals? To answer it is not an easy task, especially in a complex context of public governance, which may refer to the redefinition and expansion of the forms of relationship between State and society or between government, private agents, and society. Moreover, the concept of state capacity has evolved to encompass multiple dimensions (Gomide *et al.*, 2017), such as the quality of bureaucracy (Souza, 2016, 2017), structures of governmental coordination (Gomide and Pires,

2016), and networks between actors located inside and outside public administration (Evans, 1993; Grisa, Kato, Flexor, & Zimmermann, 2017).

Although recent studies have pointed out that state capacity is crucial to explain performance in public governance (Centeno *et al.*, 2017; Serikbayeva *et al.*, 2021; Gomide *et al.*, 2021), other issues also emerge. First, which state capacity dimensions or factors do governments mobilize and combine to affect organizational goals? Is the organizational performance among policy sectors in the public administration equally perceived? Do these dimensions or characteristics of state capacity affect policy performance in the same way? To explore these questions, this paper's main goal is to investigate the effects of key state capacity dimensions on governmental performance and whether they differ among policy sectors. More specifically, we map which dimensions of state capacity are critical for successful governmental outputs. This analysis applies to multiple policy areas of the Brazilian public administration.

The inquiry assumes that policy sectors (government core; infrastructure; productive development; security/citizenship and social/environmental) present different state capacities and, therefore, produce heterogeneous effects on outputs and outcomes. The policy sectors' classification stems from the official aggregation in the 2016-2019 Pluriannual Plan, established by federal law 13.249 of January 14th of 2016. This assumption is based on previous research that investigated the process of State building in Brazil and the quality of its bureaucracy (Geddes, 1994; Evans, 1993). Historically, public administration in Brazil was organized in the context of the development agenda (which took place from 1930 to 1980). It was based on the idea of "pockets of efficiency", in other words, semi-autonomous agencies and state enterprises with a high level of professionalization and competence (Nunes, 1997; Schneider, 1991; Sikkink, 1991; McDonnell and Vilaça, 2021). Hence, the Brazilian bureaucracy was built in a very asymmetric pattern. The agencies responsible for the development agenda concentrated state capacity (meaning professionalization and political autonomy) while the majority of the public administration was primarily ineffective and unprofessional. However, in recent decades, an expansion of State capacity happened throughout the Brazilian public administration, although some asymmetries persist, especially in the social area (Souza, 2017).

To investigate this subject, the inquiry uses a survey applied to over three thousand civil servants of the Brazilian federal public administration that covered, in addition to performance questions, the following state and policy capacity dimensions: meritocracy, autonomy, relationship, skills, resources, and accountability (Pereira, Machado, Cavalcante, Gomide, Bersch, Magalhães, Goellner & Pires, 2019). Initially, we employed principal components analysis for creating composite variables, based on the bureaucrats' perceptions. Then, the paper displays descriptive statistics to explore these synthetic indexes in five different policy areas of government (government core; infrastructure; productive development; security/citizenship, and social/environmental). Lastly, we run a multivariate regression to test the effect of state capacities on policy performance.

In sum, the paper presents interesting findings with theoretical and empirical contributions for this literature, especially addressing a developing country such as Brazil. First, the degree of state capacity development impacts the perception of performance, and, secondly, these effects are quite diverse on the organization's outputs and outcomes. Although they vary, another unexpected result is that the state capacity dimensions are not so different among the policy sectors, resulting from a more homogenous strategy of strengthening the public administration in Brazil. Regarding the impact of state capacity on performance, the relationship seems indifferent. The standard dimensions of state capacity – resources and meritocracy – present variable effects, while autonomy, accountability, and skills stubbornly affect better performance in public organizations.

The outline of the paper is as follows. The following section discusses the theoretical debates regarding bureaucracy, governance, state capacity, dimensions, and applications in the Brazilian case. The third section explores the descriptive statistics of the performance, and the state capacity dimensions. In the fourth, we

detail the multivariate model and discuss the empirical results. Finally, some inquiry conclusions and future research agenda are presented.

Theoretical Debate on State Capacities and Hypotheses Construction

The concept of state capacity is usually related to the idea of performance, meaning the mobilization of resources necessary to achieve governmental effectiveness and to implement official goals (Christensen & Gazley, 2008; Skocpol, 1985). Even though the literature on state capacity became quite popular in social sciences and public administration fields over the recent years, its theoretical origin dates to the “statist” movement of the 70s and 80s (Cingolani, Thomsson & Crombrughe, 2015). At that time, in contrast to society-centered theories (such as Marxism and Pluralism), it was claimed that the state held autonomy to influence political and social processes through their policies. Several studies about economic structural transformations, such as late industrialization, investigated the state’s role in that process; in other words, as the protagonist at explaining social and political outcomes (Evans & Rauch, 1999; Skocpol & Finegold, 1982). Since then, the debates about state capacity have experienced movements of conceptual expansion and new thematic applications (Cingolani, 2013; Fukuyama, 2013; Gomide, Pereira & Machado, 2017; Wu, Ramesh & Howlett, 2015).

Therefore, since its origins, the concept of state capacity has been mobilized to understand state performance. In this sense, while the state capacity agenda from the 1980s and 1990s was mainly concerned with understanding state performance in economic development processes, recently, the concept has been used to explain state performance in several fields – such as public security (Hendrix, 2010); social development (Cingolani *et al.* 2015); environmental sustainability (Abers, Oliveira & Pereira, 2016); levels of corruption (Bersch, Taylor & Praça, 2017); the implementation of infrastructure policies (Gomide and Pereira, 2018); and state responses to Covid-19 crises (Mao, 2021; Serikbayeva *et al.*, 2021).

Within the statist movement, whereas the state was considered a weighty actor that held autonomy, researchers investigated a new question: what conditions strengthen state capacity? In other words, what factors increase state effectiveness? These questions produced several studies that elaborated specific dimensions of state capacity. Following the Weberian tradition, the first answers understood state capacity as intrinsically linked to public bureaucracies’ quality (Cingolani *et al.*, 2015). This perspective led to the administrative approach of state capacity, which is understood as the set of capabilities of state agencies to implement their policies and to produce coordinated actions oriented to the production of results (Gomide & Pires, 2014).

The dimensions of the administrative state capacity were based on the features of the Weberian bureaucracy model, such as professionalization, meritocracy, and autonomy from social influences. Professionalization refers to “intellectual activities of civil administrators engaged in diagnosis societal problems and framing policy alternatives to deal with them” (Skocpol, 1985, p. 11). In other words, it means a form of collective puzzlement on society’s behalf that entails both deciding and knowing. Meritocracy is related to a specific model of recruitment based on impersonal requisites; usually knowledge level proved upon exams and certificates. It is argued that merit-based selection of public employees positively affects bureaucratic output through the increased expertise of administrators, their greater cohesion, and commitment to their organization’s goals (Nistotskaya & Cingolani, 2016).

Broadly, autonomy is understood as the formulation of policies by state bureaucracies that are not simply reflective of the demands of social groups or classes (Skocpol, 1985). According to this perspective, administrators can formulate long-term goals transcending partial and short-sighted demands from specific groups (Skocpol, 1985). The lack of state autonomy, on the other hand, is associated with the transformation of public bureaucracies into an arena of bitterly politicized and inconclusive conflicts (Rueschmeyer & Evans, 1985; Skocpol & Finegold, 1982). Whereas state bureaucracies should be independent of social forces, the

Weberian approach claims they should be subordinated to political principals, who hold the legitimacy of formulating the political agenda (Fukuyama, 2013). Some concerns highlight that excessive autonomy can test political accountability and primarily negatively affect policy decisions. In this sense, he argues that the relationship between autonomy and government quality is not always linear. Sometimes, it may appear shaped as an inverted U curve. Put differently, a low level of autonomy may provoke slow and inefficient policymaking, while excessive autonomy can allow public servants to bypass the elected officials' controls. The ideal relationship between bureaucratic autonomy and government quality would happen when agencies provide enough independence for innovation and oversight for accountability (Fukuyama, 2013).

The first applications of this state capacity approach focused on elaborating indexes of bureaucratic quality based on the features of the Weberian model. The classic example of this perspective is Evans and Rauch (1999) analysis of the effects of the Weberian state structures on economic growth, which compared the "weberianess scale" among 35 developing countries for the 1970-1990 period. Even though these studies contributed to the development of scales of quality of bureaucracy, they considered state capacity as homogenous inside the countries.

Recently, a new academic manifesto calls for a more in-depth analysis of states' executive branches and their bureaucracies. In this sense, Fukuyama (2013) claims that although several studies about political institutions limit power, few advances exist in analyzing the institutions that accumulate and use power. Therefore, the past years are marked by a new proliferation of studies that mobilize state capacity concepts to explain state action, culminating in new dimensions of state capabilities. In this sense, recent studies claim that state capacity is the product of the combination between competencies and resources. Ramesh and Howlett (2016) describe three types of competencies – analytical, managerial, and political – that interact with three levels of resources – individual, organizational and systemic. Individual resources refer to the existence of a structure of technical knowledge; organizational resources mean the tools for informational, financial and human resources management; systemic resources refer to conditions located outside the state, such as the levels of social and political thrust on the public bureaucracies (Wu *et al.*, 2015). It is worth mentioning that these authors employ the term policy capacity when addressing to resource and skills dimensions of public bureaucracy and organizations.

Another state capacity approach has shed light on the relationship pattern between state bureaucracies and social actors. For them, it's also essential to analyze civil society since social groups often contest the policies formulated by state bureaucracies, which might hinder state capacity due to judicialization and interruptions in the implementation process (Abers *et al.*, 2017; Midgal, 2001). Thus, the legitimacy of state action is considered an important factor for state capacity (Mann, 2008). Besides that, the relationship between state bureaucracies and social groups leads to the exchange of information necessary to formulate coherent policies (Evans, 2010; 2011). Also, some studies have emphasized the advantages of social control and accountability to correct policies scope and impacts (Pires & Gomide, 2016). In this context, the initial focus on administrative capacities is complemented by concerns about political capabilities, which are understood as the abilities of state actors to negotiate and process conflicts (Gomide & Pires, 2014). More specifically, the political capacity approach involves understanding the needs and positions of different stakeholders, communication skills, and effective civil service bargain (Wu *et al.*, 2015).

In the Brazilian case, debates about state capacity were first mobilized to study the asymmetric results of the developmentalist agenda from the 1930s to the 1970s. The main inspiration to apply state capacity concepts in the Brazilian case was the Weberian approach. It was believed that the quality of state bureaucracy – meaning especially professionalization and meritocracy – was essential for the developmentalist agenda success. However, in the case of Brazil, the state was not able to modernize the whole public administrative at the same time (Streek & Thelen, 2005). One reason for that is a consequence of the "politician's dilemma" described by Geddes (1994, p. 281) as a situation in which "the presidents, as well as his coalition partners, faced a wrenching conflict between their own need for immediate political survival and longer-run collective

interests in economic performance and regime stability”. While the first need is associated with political support and weakening of state capacity since professionalization and meritocracy are set apart from the requisites to reformulate bureaucracy in a context where appointments in the public administration are used as an exchange for political support, the second is related to the existence of effective bureaucratic organizations.

During the developmentalist Era in Brazil, politicians chose a dual strategy to solve this dilemma: state bureaucracies responsible for the implementation of the economic projects were modernized and professionalized, which led to the creation of “island of excellence” or “pockets of efficiency”; nonpriority bureaucracies for the economic agenda were used for patronage to reach political support (Schneider, 1991; Sikkink, 1991). In this sense, priorities technical bureaucracies were insulated from political influences and pressures from social groups (Nunes, 1997). Therefore, the initial state capacity literature on the Brazilian context shed light on the Weberian approach and emphasized the heterogeneous organization of bureaucratic capabilities.

In the 1980s, Brazil experienced deep social and political transformations due to the democratization process that culminated in the approval of a new Constitution in 1988. The new institutional framework of the Brazilian state is characterized by territorial decentralization since municipalities became important actors in the supply of social services; the creation of participatory institutions, which led to the inclusion of civil society actors in the decision-making process of public policies; and the strengthened of horizontal accountabilities agencies and mechanisms (Cavalcante, Lotta & Oliveira, 2018; Pires & Gomide, 2016). Besides that, the democratization process also led to the commitment of the Brazilian state to new roles, such as the supply of universal social policies and infrastructure projects (Cavalcante, Lotta and Oliveira, 2018). In the face of these transformations, new research emerged to understand if the Brazilian state could deliver the new policies required within the democratic scenario and investigate which capabilities were necessary for the Brazilian state to act effectively in this new complex context.

Parts of the answers to these questions were still based on the Weberian perspective, focusing on the administrative approach. In this sense, Marengo, Strohschoen, and Joner (2017) mobilized a restricted definition of state capacity as bureaucratic professionalization to investigate urban property tax collection variations. Souza (2017) also resorted to the Weberian approach to examine the process of state capacity building in Brazil between 1995 and 2010, referencing the variables of professionalization and meritocracy of bureaucracy. She claims that the asymmetric capacity of the Brazilian public administration remained until the 1990s since only the agencies responsible for the priority agenda were fully professionalized.

This historical tendency was interrupted during the Working Party administration (2003-2016) when several public contests and the consequent increase of public employees with an undergraduate level of education (Cavalcante & Carvalho, 2017). Souza concludes that today the Brazilian public administration holds the main features of the Weberian bureaucracy. The study of Cavalcante, Lotta and Oliveira (2018) reinforces this conclusion: according to them, from 2003 to 2014, there was an increase in the number of public employees from 480.000 to 615.000 in diversified areas – including, for example, the areas of infrastructure, social policy and regulation. Significant increases followed this in the public service salaries. In this sense, the current research agenda on state capacities surpasses the Weberian perspective by investigating other factors impacting state performance. For instance, Gomide and Pereira (2018) face puzzling data: even though the Brazilian infrastructure bureaucracy is highly professionalized, its performance is very poor in delivering effective policies. To understand that, it was necessary to go beyond the classical Weberian approach by investigating intragovernmental coordination and the relationship pattern between State and society. Similarly, Satyro, Cunha and Campos (2016) present an intriguing conclusion by claiming that the municipalities with Weberian features deliver less social assistance services in Brazil. In contrast, the municipalities that do not have a Weberian bureaucracy can supply these kinds of services. These kinds of

conclusions raise the question of what other approaches are necessary to understand state capacity in the case of Brazil.

In this context, Gomide and Pires (2016) claim that, besides the administrative capacity, policy capability is essential to understand the Brazilian performance in implementing public policies in a democratic context. More specifically, while the administrative capacity is associated with implementing the policy goals, policy capability is responsible for innovation and improvements in governmental initiatives. Similarly, when studying the contemporary actions of the Brazilian state in rural development area, Grisa *et al.* (2017) state that the democratic capacities, i.e., the formal and informal structures of interactions between the state, the market and social organizations – provide legitimacy, and also make it possible to adapt policies to the demands of local stakeholders.

Finally, scholars have investigated if the distribution of state capacity remains heterogeneous in the Brazilian public administration. The main conclusion in this respect is that even though the recent professionalization of the Brazilian bureaucracy overcame the idea of “pockets of efficiency”, it remains some asymmetry. In this sense, Souza (2017) claims that the fields of social policies and infrastructure are less professionalized than the areas responsible for control and accountability. This asymmetry in terms of Weberian features exist even within the same field of public policies: for instance, when studying the infrastructure sector in contemporary Brazil, Cavalcante, Pereira and Gomide (2017) and Gomide and Pereira (2018) conclude that there is some heterogeneity when comparing the transport and energy sectors. Cavalcante *et al.* (2015) also compare the profile of different Brazilian bureaucracies to verify that infrastructure is the sector with the highest percentage of postgraduate and permanent career servants occupying commissioned positions. In this same group, also known as mid-level bureaucrats, Cavalcante and Lotta (2015) and Cavalcante, Lotta and Kasai (2018a; 2018b) demonstrate that heterogeneity is also the rule among them, which is perceived not only in their profile and background but also in their policy sector performance.

When investigating the Brazilian state capacity to implement large infrastructure projects in the Amazon region, Abers *et al.* (2016) conclude that the infrastructure agencies concentrate administrative capacity. Still, the environmental bureaucracy presents high levels of political capacity. The uneven patterns of bureaucratic capabilities were also highlighted by the studies of how the core of government is structured and operates in Brazil. In this sector, responsible for conducting the presidential strategic agenda, the units usually are highly professionalized and empowered.

The combination of this literature about state capacities dimensions depicts the idea that these dimensions are distributed asymmetrically along with the public administration agencies. Besides, these dimensions are responsible for different outputs (for instance, administrative capacity is related to policy delivery, political capacity is associated with innovations), which leads to the idea that each state agency, depending on the concentrated capacity dimension, produces different outcomes.

Based on this discussion involving the correlation between state and policy capacity and performance as well as the historical asymmetric pattern in the government, we formulated two hypotheses as follows:

H.: The higher the degree of state capacity, the higher the perception of performance.

H.: The dimensions of state capacity produce heterogeneous effects on outputs and outcomes, according to the policy sector.

In short, we argue that the dimensions of state capacity have experienced an intense enlargement since the “statist” movement. Nowadays, the administrative capacity encompasses the classical features of the Weberian bureaucracy model and specific competencies and resources held by individuals and organizations, drawing from the newer literature of governance and policy capacity (Ramesh & Howlett, 2016; Wu *et al.*, 2015). Besides that, the emphasis on the bureaucratic autonomy from social forces has lost ground to the political dimension, which claims for a close relationship between state actors and social groups and demands. In the case of Brazil, this enlargement has been mobilized to understand the contemporary Brazilian state

capacity. The peculiarity in the Brazilian case is the focus on the asymmetry related to state capacity. The following section presents data regarding these state capacities dimensions and advances in the analyses of their relation to performance, in the different sectors of the Brazilian federal government.

STATE CAPACITY AND PERFORMANCE

Methodology

The database used for the paper's analysis stems from the survey government quality and state capacity that is part of joint research called *Governance Project*, between the Institute of Applied Economic Research (Ipea), the Center on Democracy, Development, and the Rule of Law (CDDRL) of the University of Stanford with other international research centers.

The survey target population was composed of civil servants (permanent employees and those with commissioned positions) who formulate and implement public policies in the ministries, executive agencies (autarchies/foundations) and regulatory agencies. Due to the global feature of the joint research project and, consequently, the need for similarities among the countries' databases, the Brazilian survey sample excluded positions and careers of the street-level bureaucracy from the state-owned enterprises and mixed-capital companies and the military. The layers that are part of this research were delimited considering three criteria: positions and careers, which relate to the type of bond established between the civil servant and the federal public administration; having or not commissioned post; and the kind of organization (ministry, executive agency or regulatory agency).

According to these layers, the sampling frame was assembled based on the available data collected between May 15 and July 17, 2018, totaling 3,226 respondents, almost 70% of the sample required. In order to expand sample results to the population, the sample weights of each layer were calculated, then, we got the total of 263,468 servants, used as a basis for the selection of the sample. Its confidence interval was 95%, which means that the estimates contained in the survey are statistically reliable for the set of selected respondents. The survey also covered sociodemographic and professional characteristics, such as gender, race, year of birth, level of schooling, length of service in the public sector, among others included in the survey report (Pereira *et al.*, 2019).

Based on the survey questionnaire and responses and theoretical grounded in the literature discussed in the previous section, we formulated synthetic performance indicators and state capacities dimensions, such as meritocracy, autonomy, relationship, skills, resources, and accountability. It is worth mentioning that the proper fit of the question in each of these dimensions is not an easy task because their complexity level reflects interrelated and overlapping concepts. To cope with this issue, we followed the pattern used by other studies in the *Governance Project* (Boittin, Distelhorst & Fukuyama, 2016).

The research employs principal component analysis (PCA) to formulate these variables (the specific breakdown of how the indexes were formed is detailed in the appendix). Generally, composite indexes aim to summarize complex and multidimensional subjects helping to interpret, classify and rank units of analysis in a particular case. After running the principal component analysis, the index scores ranged from 0 to 100; the more significant the index, the higher degree of each dimension.

In order to demonstrate the variety of the public servants' perceptions about their organizations' capacities and performance, the paper employs descriptive statistics to explore these synthetic indexes and compare their means by policy sectors, also using analysis of variance (ANOVA) to test whether the differences between groups of data are statistically significant. It is worth mentioning that the sectors' means must be compared in each dimension since they were based on different questions and response scales. Lastly, we run a multivariate regression to analyze the effect of state capacities on policy performance.

State Capacity Dimensions

The following figures illustrate the distribution of these indicators and reinforce the assumption of heterogeneity of state capacity among the bureaucracy. To begin with, it seems that in all dimensions, the sectors' indexes vary from each other with different intensity and their ranks oscillate as well. The variances, in general, are relatively slight than expected, which is proved by the Anova tests that showed statistical significance in three of six among the dimension's averages.

Figure 1 encompasses the means of meritocracy (Anova Test: $F = 3.53$, $p\text{-value} = .007$) and autonomy (Anova Test: $F = 2.16$, $p\text{-value} = .07$) indexes. The graphs show differences among the sectors in both cases, and the tests confirmed their statistical variance. However, in the first, they are higher. Another aspect that draws attention is the variation of the positions among the dimensions as, theoretically, it is expected that meritocracy and autonomy would be quite convergent as new Weberian features of bureaucracy. In this sense, the result is convergent with the Fukuyama (2013) argument that not always extensive autonomy is positive; in fact, it is reasonable to expect that it varies according to the particularities of different areas and careers in the public sector. For instance, security/citizenship has the greatest average in meritocracy and the lowest in autonomy. Most of them are from military and police forces, well-known for their hierarchical promotion process between ranks. Still, at the same time, their decisions and actions tend to be very procedural and regulated. In this sense, one reasonable explanation for the low autonomy of military and police forces stems from the risks of high-level independence and discretion that may harm government quality and even democracy.

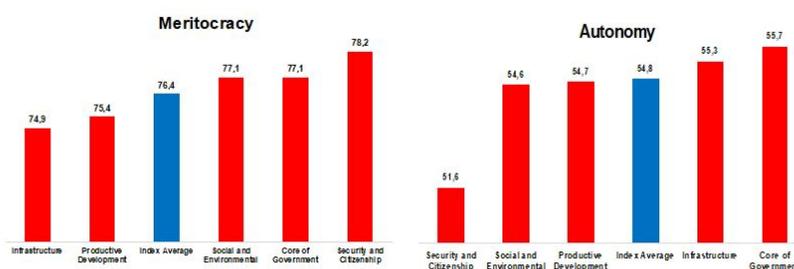


Figure 1: Meritocracy and Autonomy Indexes Average, by policy sector.

Regarding resources and skills (Figure 2), the indexes' means vary among the policy sectors, especially in the resources indexes. The differences are the only one statistically significant ($F = 9.71$, $p\text{-value} = 0.000$). In either case, once again, ministries of CoG show the highest score average as observed in autonomy. Unsurprisingly, productive development and infrastructure are in second and third places, depending on the dimension. These findings are quite in line with the literature (Cavalcante & Lotta, 2015) that demonstrates that most of the ministries and agencies from these sectors have professionalized careers and resourceful programs, such as the finance and planning ministries and general attorney's office that are part of the core of government. Security and citizenship, once again, drop to the lowest rank, followed by social and environmental ministries in the skills and resources indexes.

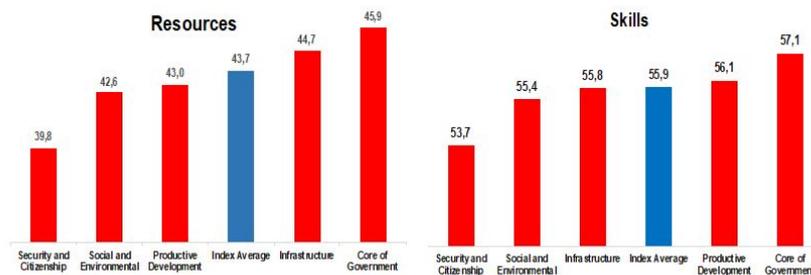


Figure 2: Resources and Skills Indexes Average, by policy sector.

The last state capacity described involves the complexity of the bureaucrat’s networking and the level their organizations are held accountable by society. In either case, the differences among policy sectors are quite reduced than the previous dimensions, and, in both cases, the Anova tests are not significant. The CoG also stands out and confirms the expectation since this sector has crucial functions of communication and coordination of the Executive branch, which naturally demands such capacities (Cavalcante & Gomide, 2018). Moreover, security/citizenship ministries continue presenting weaker capacities, under the averages. In contrast, social and environment are among the best in relationship and accountability, making sense considering their policymaking features, the first more restrictive. The second is based on institutions that foster open and participative processes. In this dimension, the results indicate that the analysis of the public organization’s connections seems to be more productive, focusing on the relation’s types than on its overall intensity.

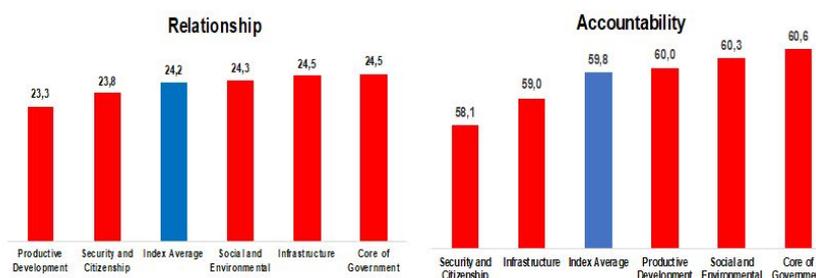


Figure 3: Relationship and Accountability Indexes Average, by policy sector.

Performance by sectors

Usually, every public organization aims to improve its performance in delivery services and reach its goals with efficiency and quality. Performance can be understood as the mobilization of resources needed to achieve governmental effectiveness and implement strategic objectives (Christensen & Gazley, 2008). However, as we all know, it can be a broad and ambiguous definition in the public sector that, despite its simple, common-sense concept, involves complex and not trivial theoretical and methodological difficulties. Policy and public organizations’ performance depend mainly on various state capacity dimensions and, above all, on the effectiveness of their actions, meaning the actual benefits to the targeted population, which can be expensive and difficult to precisely measure. It becomes even more complicated when we analyze policy sectors, considering they may involve several ministries or agencies with dozens of programs that often do not have suitable performance indicators or management systems. Other assessment strategies focus on public opinion, citizens or elites, and civil servants’ perception.

Based on this last option, for this analysis, we formulated a composite index based on four questions that encompass a broader approach of this concept, including questions regarding the organization's production of expected results and if the unit has achieved more or fewer outputs compared to five years ago. Moreover, the performance score also covers the bureaucrat's perception of whether the organization is well evaluated by society and if it is creative and innovative.

The index formulation followed the same procedure employed to the state capacity scores discussed above. The average of the indexes grouped by policy sectors is different, with an overall mean of 55. However, the standard deviations are relatively high, revolving around 21%, i.e., almost forty percent of the index mean. Figure 4 shows the indexes distribution in the box plot graphs.

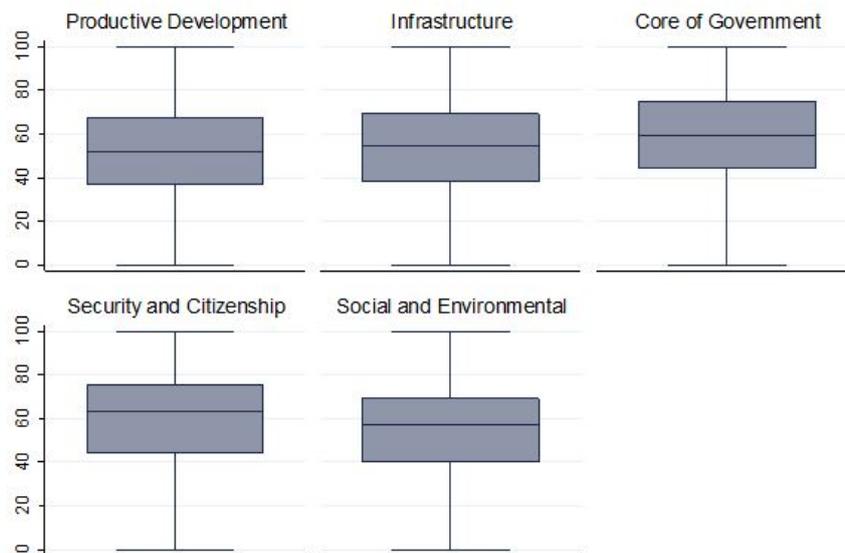


Figure 4: Performance Indexes Distribution, by policy sector.

The standard deviation in performance is higher than the other synthetic indexes, but, mainly, the mean and median (shown in the box plots) are the greatest among the policy sectors. After employing an analysis of variance (ANOVA) test, the results confirmed that these differences are also statistically significant ($F = 12.82$, $p\text{-value} = 0.000$). Surprisingly, the best scores are found in the security and citizenship ministries, even though they presented the worse indexes in the majority of the capacity dimensions. So, in this sector, the bureaucrats have, on average, a negative view of their capabilities but a positive perception of how they perform. With the best scores in the previous analysis, the core of government shows the second-highest means and medians of their employees' view of performance in the Executive branch. Conversely, the productive development units present the worse perspectives about achieving their goals, improving effectiveness over the last five years, and being creative and innovative.

Performance Determinants

To analyze if the bureaucrats' perceptions of state capacity affect their views about organization performance, in this subsection, we empirically test this possible correlation using multivariate models for all survey data and, specifically, by each policy sector. On the model's left side, the dependent variable is the synthetic index of performance, above described, while the right side is composed of state capacity indexes. Therefore, the basic statistic model is defined as follows:

Performance. $\beta_0 + \beta_1 \text{Meritocracy}_i + \beta_2 \text{Autonomy}_i + \beta_3 \text{Resources}_i + \beta_4 \text{Skills}_i + \beta_5 \text{Relationship}_i + \beta_6 \text{Accountability}_i + u_i$ (1)

The models' results from Ordinary Least Square regression (OLS) using cross-sectional data are interesting in different ways. Table 1 presents the estimated coefficients, standard errors in parentheses, and the models' coefficients of determination for all the sample (general model) and each policy sector analyzed.

Table 1: The Performance Determinants

Table 1: The Performance Determinants

| Variables | General Model | Productive Development | Infrastructure | Core government | Security and citizenship | Social and environmental |
|-------------------------|-------------------|------------------------|------------------|-------------------|--------------------------|--------------------------|
| Meritocracy | .097*** (.01) | .07* (.04) | .34 (.03) | .16*** (.04) | .9*** (.07) | .9*** (.03) |
| Autonomy | .16*** (.01) | .15*** (.04) | .17*** (.03) | .21*** (.03) | .21*** (.06) | .13*** (.03) |
| Resources | .11*** (.02) | .13*** (.04) | .11*** (.04) | .18*** (.04) | .01 (.07) | .07** (.03) |
| Skills | .32*** (.01) | .26*** (.04) | .32*** (.03) | .31*** (.03) | .36*** (.06) | .37*** (.03) |
| Relationship | .00 (.01) | -.00 (.036) | -.06** (.03) | .02 (.03) | -.09 (.053) | .04 (.03) |
| Accountability | .37*** (.02) | .4*** (.04) | .41*** (.043) | .36*** (.04) | .35*** (.07) | .34*** (.03) |
| Constant | -7.02*** (1.6) | -6.67 (4.0) | -4.8 (3.0) | -14.1*** (3.8) | -6.4 (6.5) | -4.6 (3.15) |
| N | 3.226 | 561 | 744 | 708 | 251 | 946 |
| Adjusted R ² | 0.44 | 0.4 | 0.5 | 0.45 | 0.43 | 0.44 |

Source: Elaborated by the authors based on a survey from the Governance Project (Ipea/CDDRL).

Note: Standard errors in parentheses * p<0.05, ** p<0.01, *** p<0.001. The sum of the sectors models' number of observations reaches 3,210 because sixteen respondents avoid informing their specific unit of work.

Importantly, due also to the large sample, T-test and F-test are valid asymptotically. Even though a few variables are not statistically significant, overall, the significance of the regressions is confirmed (Wooldridge, 2006). After the regression, a check for multicollinearity was carried out, and the results proved that the degree of collinearity among the independent variables is not worrisome.

To begin with, the coefficients of determination (R²) in all models are relatively expressive, considering that the independent variables together explain from 40% to 50% of the performance in federal government organizations. Secondly, it is also noticeable that most independent variables affect the performance index, however, with different patterns and intensities.

Overall, the regression results allow us to confirm both hypotheses of this paper. In the general model and in every policy sector, as most capacity dimensions positively affect the bureaucrat's perception of performance (*HI*). Moreover, while most of the variables present a significant and substantial impact on the dependent variable in all models, the other coefficients estimated or affect only some policy areas' performance, primarily, relationship. Based on this empirical evidence, we can confirm hypothesis 2, state capacity dimensions produce heterogeneous effects on the organization's results, according to the policy sector.

The first dimension is meritocracy, meaning an administrative environment that values recruitment and promotion based on impersonal requisites of skills, technical competence, and expertise, in contrast to political party and personal relations criteria. In the general model and almost all policy areas, except for infrastructure ministries, the estimates confirm the assumption that merit-based organizations have a

positive effect on their performance (Evans & Rauch, 1999; Rueschmeyer & Skocpol, 1985), although in these cases, the coefficients were substantially the lowest ones in the models. Some recent findings from the Brazilian literature may help us understand these minor effects on the performance perception of the bureaucrats.

A reasonable explanation may be that most public service selection and promotion (i.e., occupation of commissioned post) are highly regulated and mostly restricted to permanent career servants. Regarding the appointment, since the Federal Constitution of 1988, all permanent staff had to be approved in transparent, open, and nondiscriminatory public tenders, which reinforces the merit as the basis. Nonetheless, on the promotion side, the legislation sets many limits to appointing outsiders (professionals that are not part of the public sector careers), leaving approximately 10% of the positions in the federal government for them. Notwithstanding, Cavalcante e Carvalho (2017) have already shown that, since 1995, the majority of this percentage is also occupied by a permanent civil servant. Moreover, studies on the profile and performance of mid-level bureaucrats in Brazil (Cavalcante *et al.*, 2018a; Cavalcante & Lotta, 2015) have proven that promotion in the civil service is a consequence of meritocratic mechanisms since the professional background and formal education have a positive relation with commissioned position appointments.

The literature has also diminished the political partisan's relevance in these cases; in other words, the bulk of the posts (low and mid-level bureaucracy) are much less affected by partisanization than the top officials (D'Araujo & Petek, 2018; Lopez, 2015), which does not mean that other forms of politicization would not be frequent inside government. However, nonpartisan political networks tend to be more challenging to measure (Praca & Lopez, 2019).

Continuing in the Weberian approach, the next dimension is autonomy, which means the relative independence of the bureaucrats from social and political groups to decide their way of work and make decisions grounded in technical considerations and with a certain level of discretion. This state capacity would allow the separation of policy implementation from instabilities stemming from competition from the political system, making the management environment more predictable and policies more resilient (Lewis, 2003; Miller, 2000). As a result, it could avoid the process of capture in the State, which would negatively affect national projects and the long-term policies listed in a rational (Beazer, 2012; Cingolani, 2013).

In this case, regression models show that the autonomy indexes are more influential on an organization's performance than meritocracy, including every policy area. In the whole sample, the coefficients are statistically significant. On average, a change in the autonomy index would affect .16 in the performance scores, *ceteris paribus*. In this sense, we can state that the higher the bureaucrat's sense of autonomy, the better their perception of performance, which is allied with the theoretical assumptions (Cingolani *et al.*, 2015; Evans & Rauch, 1999; Fukuyama, 2013)

The third dimension of state capacity assumes that the employment of resources achieves performance to reach governmental effectiveness and implement official goals (Christensen & Gazley, 2008; Ramesh & Howlett, 2016; Skocpol, 1985; Wu *et al.*, 2015). The synthetic index encompasses a variety of factors that depict a range of management factors that may hamper the conditions for the organization to achieve its goals, such as human resources, budgeting, technology, auditing, among others. In this case, the estimates are significant in four models, indicating, as expected, the positive correlation between organization resources and performance, keeping other variables constant. The exception is the security and citizenship ministries, which presented the lowest average on resources and didn't have a statistically significant coefficient in the regression model. It is a finding that deserves further analysis.

Advancing to a more comprehensive approach of administrative capacity, beyond the conventional dimensions discussed above, the regression shows different results concerning relationship, skills, and accountability.

The bureaucrat ability to interact with different stakeholders has become increasingly important in a context of complex governance arrangements (Evans, 2010; 2011; Wu *et al.*, 2015), in which policy

implementation demands constant coordination inside the Executive branch, with other branches, private sector, subnational governments, civil society, and international agencies. It is essential to underline that the variable measures frequency of interaction, a proxy for coordination, but doesn't encompass every aspect of it. Unpredictably, the relationship has the lowest coefficients, and the variable shows statistical significance only in one model (infrastructure), nonetheless, with a negative coefficient. This finding is corroborated in the recent study by Gomide *et al.* (2021) on the Brazilian federal bureaucracy. What can we draw from it? A reasonable explanation can assume that a public servant's frequency and variety of interactions do not reflect barriers or facilitators to policymaking. The relationship patterns in each policy sector naturally vary according to the sector's features, independently of the impact on performance.

On the contrary, the last two state capacity dimensions confirm the previous assumption that organizations' skills and the degree of accountability affect their performance. The first variable contained different aspects of civil servant capabilities, including analytical, interpersonal, and managerial competencies (Wu *et al.*, 2015). At the same time, the accountability index covers factors related to preventing corruption, social participation in the policymaking, and holding the organization accountable for better results. To illustrate some of these effects, Figure 5 presents graphs with predicted values from the general model that depicts all independent variables on performance.

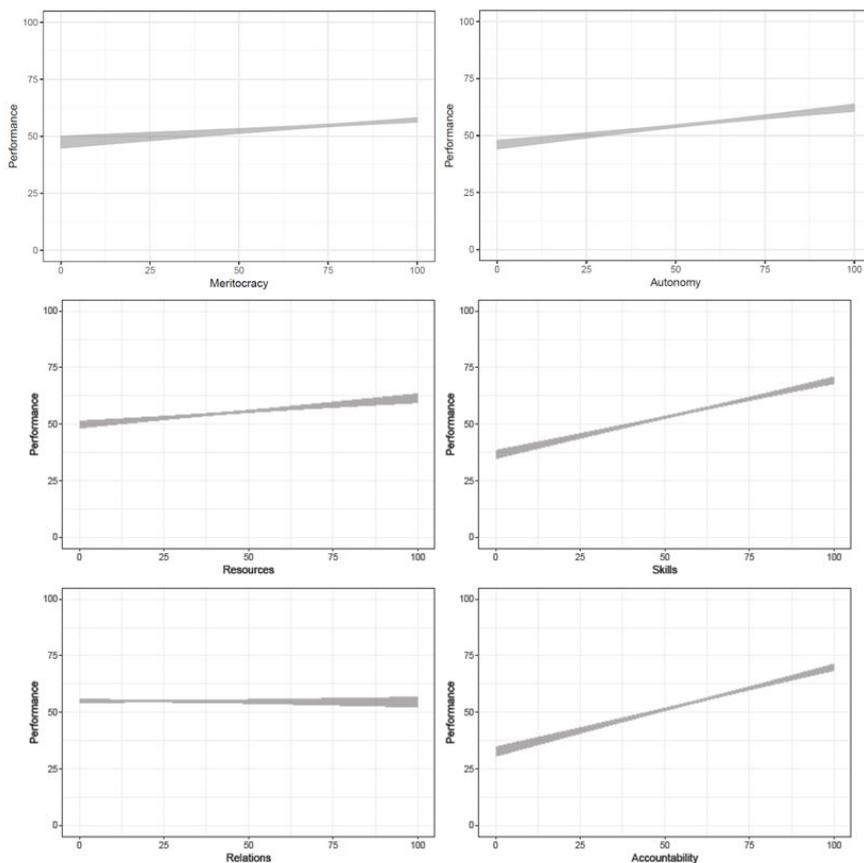


Figure 5: Predicted Effects on Performance

Source: Elaborated by the authors based on the survey from the Governance Project (Ipea/CDDRL).

Clearly, both coefficients estimated demonstrate considerable impacts of skills and accountability indexes in the dependent variable. In objective terms, an increase of a point in skills, on average, represents a growth of approximately .32 in the performance score (varying from .26 in productive development and .37 in social and environmental), *ceteris paribus*. While the effect of accountability is even higher, e.g., in the general model, it positively affects performance indexes in .37, on average. In summary, organizations that are more

skillful and held accountable tend to perform better, in line with previous studies (Mann, 2008; Pires & Gomide, 2016; Ramesh & Howlett, 2016).

CONCLUSIONS

An essential subject in the public governance agenda is how governments can achieve their organizational missions and policy goals. So, this paper aimed to investigate the effects of crucial state capacity dimensions on governmental performance and whether they differ among policy sectors.

This analytical approach has become more relevant for three main reasons. First, due to the recognition of the increasing complexity of the public sector, reflected in new agencies and state responsibilities worldwide. Secondly, the field of research has evolved and, more recently, presented a comprehensive perspective on the concept of state capacities and their impacts on governance and government effectiveness. Lastly, due to the historical asymmetry among public organizations and their bureaucracy professionalization, it is worth studying if this still produces different impacts on policy sector performance, considering that decades of democratization may have diminished this heterogeneity. However, the most striking finding is that the difference in the exact state capacity dimensions among policy areas is not as expressive as supposed. This result might be explained by an even evolution of agency structures and bureaucracies strengthening in the past years in Brazil, which have created a more homogenous public administration compared to the historical asymmetry related to state capacity. This finding reinforces recent studies that claim that governmental investment in state capacity became broader and more inclusive as it incorporated several agencies that do not belong to the classical “pocket of efficiency” (Cavalcante & Silva, 2020; Souza, 2017).

Another exciting finding is that the policy sector may be well ranked in some state capacity dimensions but might be poorly ranked in another dimension. It is worth highlighting; however, that core of government units leads almost all index averages, except for meritocracy. Finally, regarding the regression results, just the relationship dimension does not substantially affect the performance's perception in contrast to the literature that mobilizes the ties between social actors and bureaucrats to explain state performance, such as Evans (1994). In contrast, the traditional dimensions of state capacity – resources and meritocracy, impact performance differently according to the models. On the contrary, the effects of autonomy, accountability, and skills indexes, these latter two encompass a broader governance approach, are strongly associated with better performance in the public administration, including all policy sectors.

In short, the paper shows instigating insights at advancing in the study of state capacity, governance, and public sector performance, especially because it deepens comparative analysis on these critical relations for the public administration that are mostly theoretical and less empirically explored (Wu *et al.*, 2015). Moreover, the research contribution is also original as it highlights the case of policymaking in a developing country, different from the prevailing literature from nations with mature democratic and capitalistic institutions.

Nevertheless, the composite indexes were formulated based on the bureaucrats' perceptions about the effectiveness of their actions; as such, they obviously must be analyzed cautiously. As with every analytical strategy, the use of survey data has limitations. One of them is that the likelihood of positive perception of state capacity is also influenced by performance. However, it does not harm the scientific validity of this inquiry. On the contrary, recognizing its shortcomings helps to emphasize the need for complementary approaches to complex and dynamic phenomena. In this broader research agenda, the paper results can become even more relevant for the field of study if complemented by comparative cross-nationally analysis or qualitative detailed case studies. For instance, it focused on how policy sectors employ different coordination instruments and their effects on performance in a governance context. The future research paths are diverse and may encompass different perspectives of policymaking. Baekgaard *et al.* (2018) pointed out a gap in an investigation of how bureaucratic characteristics influence the policy agenda-setting, which could be

explored based on the quality of bureaucracy and the dimensions of state capacity mobilized in this paper. Specifically, future research on state capacity should focus on earlier stages of the policy process, in addition to the implementation phase. Another avenue is indicated by Filgueiras *et al.* (2020), who claims that further investigations incorporating individual factors in state capacity studies are necessary. According to them, capacity analysis is usually “based on macro-structural factors as determinants of results” (p. 21)—however, individuals matter since they may not perform the functions they are assigned to.

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Appendix 1 - Composite Indexes

In this section we present the methodology employed to create the synthetic Indexes of state capacity dimensions and performance. Initially, we choose an original frame, the factors that best represent the analyzed phenomenon. In this case, the frequency of bureaucrat's perceptions of this dimensions. The second step involves the selection of the primary data that had been transformed to allow comparisons. The frequencies of responses were converted into numbers from the survey questions, described in the tables below.

In the next step, we employed Principal Component Analysis method (PCA), a type of factor analysis, which, in short, applies to the identification of factors that objectively point to the aggregation and reduction of a number of measures. The method provides less loss of explanatory power of the original data and a lesser degree of subjectivity of the researcher (Hair et al., 2005). The main purpose is to create new variables that are linear combinations of the primary variables. Thus, unlike the arbitrary definition of weights, the methodology takes advantage of the correlation between indicators and creates an index corresponding to a weighted average of these variables.

Once built, the indexes were transformed, aiming at normalization of its values within a range from 0 to 100. Thus, we used the following formula:

$$IS_i^X = \left[\frac{X_i - X_{min}}{X_{max} - X_{min}} \right] * 100 = 0...100$$

Where,

IS = Synthetic Index

X i = Observed Index

X min = Minimum value

X max = Maximum value

Finally, Table 2 and 3 also include the percentage variation of the first component and the respective factor loadings used for the calculation of indexes:

| Question | Frequency | Eingvalue | % Explained |
|--|---|-----------|-------------|
| QB1 My work unit is able to recruit people with the right skills. | 5- Strongly agree 4- Agree 3- Dont agree or disagree 2- Disagree 1- Strongly disagree | | |
| QB2 Promotions for political appointees in my work unit are based on merit. | 999- Don't know / Refuse to answer | | |
| <i>Evaluate how important each of the following items are to promotion</i> | | 2.19 | 36,5% |
| QB5 Technical competence | 4- Very important 3- Important | | |
| QB6 Political party affiliations* | Moderately important Not important 999- Don't know / Refuse to answer | | |
| QB7 Career expertise | 999- Don't know / Refuse to answer | | |
| QB8 Personal network* | | | |

Note: * In these questions, the values are considered in the opposite way, e.g., the more important the less meritocratic.
Source: The Governance Project Survey (Ipea - CDDRL)

Table 2: Meritocracy - List of variables and loadings of the first component

| Question | Frequency | Eingvalue | % Explained |
|--|---|-----------|-------------|
| QB1 My work unit is able to recruit people with the right skills. | 5- Strongly agree 4- Agree 3- Dont agree or disagree 2- Disagree 1- Strongly disagree | | |
| QB2 Promotions for political appointees in my work unit are based on merit. | 999- Don't know / Refuse to answer | | |
| <i>Evaluate how important each of the following items are to promotion</i> | | 2.19 | 36,5% |
| QB5 Technical competence | 4- Very important 3- Important | | |
| QB6 Political party affiliations* | Moderately important Not important 999- Don't know / Refuse to answer | | |
| QB7 Career expertise | 999- Don't know / Refuse to answer | | |
| QB8 Personal network* | | | |

Note: * In these questions, the values are considered in the opposite way, e.g., the more important the less meritocratic.
Source: The Governance Project Survey (Ipea - CDDRL)

Table 3: Autonomy - List of variables and loadings of the first component

| Question | Frequency | Eingvalue | % Explained |
|--|--|-----------|-------------|
| <i>How often do you interact with:</i> | | | |
| QF1 | Other organizations or agencies linked to my ministry | | |
| QF2 | Other ministries or organizations in the Federal Govt. | | |
| QF3 | Members of the Legislative branch | | |
| QF4 | Members of the Judiciary branch | | |
| QF5 | Control and Audit agencies | | |
| QF6 | Local governments | 4.22 | 38.3% |
| QF7 | State governments | | |
| QF8 | Private companies | | |
| QF9 | International organizations | | |
| QF10 | Civil Society organizations | | |
| QF11 | Universities and Research institutes | | |

Source: The Governance Project Survey (Ipea - CDDRL)

Table 4: Relationship - List of variables and loadings of the first component

| Question | Frequency | Eingvalue | % Explained |
|---|--|-----------|-------------|
| <i>The civil servants in your organization have the skills described below? Please rate your level of agreement with the following:</i> | | | |
| QG1 | Knowledge of the sector's public policies | | |
| QG2 | Research skills | | |
| QG3 | Policy Analysis | 4.02 | 57.40% |
| QG4 | Leadership | | |
| QG5 | Conflict management skills | | |
| QG6 | Interpersonal skills | | |
| QH4 | The skills required of my organization's staff are adequate to reach its goals | | |

Source: The Governance Project Survey (Ipea - CDDRL)

Table 5: Skills - List of variables and loadings of the first component

| Question | Frequency | Eingvalue | % Explained |
|--|---|-----------|-------------|
| <i>In my work unit, the following itens are obstacles*</i> | | | |
| QE1 | Human Resources | | |
| QE2 | Budgeting | | |
| QE3 | Technologies | | |
| QE4 | Top Official Stability | | |
| QE5 | Planning, monitoring and evaluation processes | | |
| QE6 | Legislation | | |
| QE7 | Relationship with the Judiciary and the Public Prosecution Office | 4.54 | 32,5% |
| QE8 | Relationship with the Legislative branch | | |
| QE9 | Interfederative coordination instruments with states and municipalities. | | |
| QE10 | Interfederative coordination with states and municipalities | | |
| QE11 | Audit and control processes | | |
| QE12 | Social participation | | |
| QE13 | Access to key policymakers | | |
| QH3 | The resources available are sufficient to achieve my organization's functions | | |

Note: * In these questions, the values are considered in the opposite way, e.g., the greater the agreement, the fewer resources.

Source: The Governance Project Survey (Ipea - CDDRL)

Table 6: Resources - List of variables and loadings of the first component

| Question | Frequency | Eingvalue | % Explained |
|--|---|-----------|-------------|
| QD1 The organizational culture of my working unit hinders corruption practices | 5- Strongly agree Agree | 4- 3- | |
| QD2 Civil society organizations are able to participate in the decision-making processes of the policies of my working unit | Dont agree or disagree 2- Disagree 1- Strongly disagree | 1.50 | 50% |
| QD3 My organization is hold accountable for getting better results | 999- Don't know / Refuse to answer | | |

Source: The Governance Project Survey (Ipea - CDDRL)

Table 7: Accountability - List of variables and loadings of the first component

| Question | Frequency | Eingvalue | % Explained |
|---|---|-----------|-------------|
| QH1 Currently, your organization has achieved more or less results compared to five years ago? | 5- More effective 4- Effective Same 2- Less effective 1- Much worse 999- Don't know / Refuse to answer | 3- | |
| QH2 The policies produced by the organization have reached the expected results. | 5- Strongly agree 4- Agree | 2.40 | 60,1% |
| QH5 My organization is creative and innovative. | 3- Dont agree or disagree 2- Disagree 1- Strongly disagree 999- Don't know / Refuse to answer | | |
| QD4 The performance of my organization is well evaluated by society | | | |

Source: The Governance Project Survey (Ipea - CDDRL)

Table 8: Performance - List of variables and loadings of the first component

| State Capacity Dimension | General | Government core | Productive Development | Security and Citizenship | Infrastructure | Social and Environmental |
|--------------------------|--------------------|-----------------|------------------------|--------------------------|----------------|--------------------------|
| Performance | Mean | 54,9 | 58,5 | 51,1 | 59,0 | 53,1 |
| | Median | 56,1 | 59,4 | 51,6 | 63,2 | 54,8 |
| | Standard deviation | 20,8 | 20,7 | 20,3 | 22,6 | 20,0 |
| Meritocracy | Mean | 76,4 | 77,2 | 75,4 | 78,2 | 74,9 |
| | Median | 80,7 | 80,5 | 80,7 | 82,4 | 80,1 |
| | Standard deviation | 16,6 | 15,1 | 17,2 | 16,0 | 18,2 |
| Autonomy | Mean | 54,8 | 55,7 | 54,7 | 51,7 | 55,3 |
| | Median | 57,1 | 57,3 | 57,1 | 53,7 | 57,2 |
| | Standard deviation | 19,5 | 18,9 | 19,4 | 20,6 | 18,8 |
| Resources | Mean | 43,7 | 45,9 | 43,1 | 39,8 | 44,7 |
| | Median | 43,8 | 45,5 | 42,4 | 40,2 | 44,6 |
| | Standard deviation | 15,7 | 15,7 | 15,1 | 16,4 | 14,1 |
| Skills | Mean | 55,9 | 57,1 | 56,1 | 53,8 | 55,8 |
| | Median | 57,0 | 58,9 | 58,3 | 55,4 | 57,2 |
| | Standard deviation | 19,8 | 19,5 | 19,1 | 21,2 | 19,1 |
| Relationship | Mean | 24,2 | 24,5 | 23,3 | 23,9 | 24,5 |
| | Median | 21,0 | 22,9 | 19,2 | 21,1 | 20,0 |
| | Standard deviation | 19,2 | 18,6 | 19,2 | 18,4 | 19,7 |
| Accountability | Mean | 59,8 | 60,6 | 60,0 | 58,1 | 59,0 |
| | Median | 60,8 | 60,8 | 60,8 | 60,8 | 59,8 |
| | Standard deviation | 18,3 | 17,2 | 19,0 | 17,1 | 19,3 |

Table 9: Indexes' Descriptive Statistics

Source: Governance Project (Ipea/CDDRL).

Table 10: Policy Sectors and Departments

| Sector | Department |
|--|---|
| <i>SOCIAL AND ENVIRONMENTAL</i> | Ministry of Social development (MDS) Ministry of Culture - MinC Ministry of Education (MEC) Ministry of Health (MS) Ministry of Labour Ministry of Sports Ministry of the Environment |
| <i>INFRASTRUCTURE</i> | Ministry of Mines and Energy Ministries of Cities, Ministry of Transport, Ports and Civil Aviation Ministry of National Integration |
| <i>PRODUCTIVE DEVELOPMENT</i> | Ministry of Agriculture, Livestock and Food Supply - MAPA Ministry of Tourism Ministry of Tourism, Trade and Industry. Ministry of Science, Technology, Innovation and Communications |
| <i>CORE OF GOVERNMENT</i> | Presidency Vice Presidency Ministry of Planning Ministry of Finance Civil House Ministry of Foreign Affairs - MRE Ministry of Transparency and the Comptroller General |
| <i>SECURITY AND CITIZENSHIP</i> | Ministry of Justice and Public Security Ministry of Defense Ministry of Human Rights |