



doi <https://doi.org/10.5020/2317-2150.2026.17327>

Subnational shielding: institutional quality and forum privilege in brazilian federalism *A blindagem subnacional: qualidade institucional e foro por prerrogativa de função no federalismo brasileiro*

El blindaje subnacional: calidad institucional y fuero por prerrogativa de función en el federalismo brasileño

José Mário Wanderley Gomes Neto* <https://orcid.org/0000-0002-4003-856X>, Catholic University of Pernambuco, Recife, Pernambuco, Brazil.

Editorial

Article History

Received: 05/12/2026

Accepted: 07/13/2026

Thematic Axis 2 – Constitution,
Institutions, and Democracy in Brazil

Editores-chefes

Katherine de Macêdo Maciel Mihaliuc
Universidade de Fortaleza, Fortaleza, Ceará,
Brasil

katherine@unifor.br

Sidney Soares Filho

Universidade de Fortaleza, Fortaleza, Ceará,
Brasil

sidney@unifor.br

Editor Responsável

Sidney Soares Filho
Universidade de Fortaleza, Fortaleza, Ceará,
Brasil
sidney@unifor.br

Author

José Mário Wanderley Gomes Neto
jose.gomes@unicap.br

Contribution: conceptualization,
methodology, writing – original draft,
writing – review & editing.

How to cite

GOMES NETO, José Mário Wanderley. Subnational shielding: institutional quality and forum privilege in brazilian federalism. *Pensar – Journal of Legal Sciences*, Fortaleza, v. 31, e17327, 2026. DOI: <https://doi.org/10.5020/2317-2150.2026.17327>

Data Availability Statement

Pensar – Journal of Legal Sciences adopts Open Science practices and makes available, alongside this publication, the Data Availability Statement (Pensar Data Form) completed and signed by the authors, which contains information on the nature of the article and the possible existence of supplementary data. The document can be accessed as a supplementary file on this website.

Abstract

Brazilian federalism grants federative units the autonomy to define the rules governing the original criminal jurisdiction of their authorities. This article investigates the determinants of the expansion of this prerogative at the subnational level, testing the hypothesis that forum privilege functions as a mechanism of political survival in environments of low state capacity. The research innovates methodologically by employing Natural Language Processing (NLP) to mine current constitutional texts (2024), overcoming the obsolescence of secondary databases. The analysis combines correlations (Pearson and Spearman) with Qualitative Comparative Analysis (csQCA), cross-referencing forum intensity with Transparency (EBT), Administration Effectiveness (CLP), and Party Fragmentation (NEP). The results indicate a strong tendency toward a negative association between governmental effectiveness and forum privilege. The csQCA reveals that the “perfect storm” (the configuration of low transparency, low effectiveness, and high fragmentation) is a sufficient condition for the hypertrophy of jurisdictional shielding. The atypical forum privilege is an institutional response to high political transaction costs and regional governance deficits.

Keywords: forum privilege; subnational federalism; institutional quality; csQCA; natural language processing.

Resumo

O federalismo brasileiro outorga às unidades federativas autonomia para definir as regras de competência originária criminal de suas autoridades. Este artigo investiga os determinantes da expansão dessa prerrogativa ao nível subnacional, testando a hipótese de que o foro privilegiado atua como mecanismo de sobrevivência política em ambientes de baixa capacidade estatal. A pesquisa inova metodologicamente ao empregar Processamento de Linguagem Natural (NLP) para minar textos constitucionais vigentes (2024), superando a obsolescência de bases de dados secundárias. A análise combina correlações (Pearson e Spearman) com Análise Qualitativa Comparativa (csQCA), cruzando intensidade do foro com Transparência (EBT), Eficácia da Máquina (CLP) e Fragmentação Partidária (NEP). Os resultados indicam uma forte tendência de associação negativa entre eficácia governamental e foro. A csQCA revela que a tempestade perfeita (a configuração de baixa transparência, baixa eficácia e alta fragmentação) é condição suficiente para a hipertrofia da blindagem jurisdicional. O foro atípico é uma resposta institucional aos altos custos de transação política e aos déficits de governança regional.

Palavras-chave: prerrogativa de função; federalismo subnacional; qualidade institucional; csQCA; processamento de linguagem natural.

Resumen

El federalismo brasileño otorga a las unidades federativas autonomía para definir las reglas de competencia penal originaria de sus autoridades. Este artículo investiga los determinantes de la expansión de esta prerrogativa en el ámbito subnacional, poniendo a prueba la hipótesis de que el fuero privilegiado actúa como un mecanismo de supervivencia política en contextos de baja capacidad estatal. La investigación innova metodológicamente al emplear el Procesamiento del Lenguaje Natural (PLN) para extraer información de los textos constitucionales vigentes (2024), superando la obsolescencia de las bases de datos secundarias. El análisis combina correlaciones (Pearson y Spearman) con el Análisis Comparativo Cualitativo (csQCA), cruzando la intensidad del fuero con la Transparencia (EBT), la Eficacia de la Gestión Pública (CLP) y la Fragmentación Partidaria (NEP). Los resultados indican una fuerte tendencia de asociación negativa entre la eficacia gubernamental y el fuero. El csQCA revela que la tormenta perfecta (configuración caracterizada por baja transparencia, baja eficacia y alta fragmentación) constituye una condición suficiente para la hipertrofia del blindaje jurisdiccional. El fuero atípico representa una respuesta institucional a los elevados costos de transacción política y a los déficits de gobernanza regional.

Palabras clave: prerrogativa de función; federalismo subnacional; calidad institucional; csQCA; procesamiento del lenguaje natural.

* PhD in Political Science and Master's in Public Law. Professor in the PPGD and PPGDI graduate programs at the Catholic University of Pernambuco. Attorney.



1 Introduction

Brazilian federalism, following the 1988 Constitution, consolidated a decentralization arrangement that granted federative units substantial autonomy to self-organize their justice systems. At the core of this prerogative lies states' capacity to define, in their constitutions, the rules of original criminal jurisdiction for their authorities: the so-called forum privilege (*foro por prerrogativa de função*).

However, the balance between local autonomy and the republican principle of equality has been strained by expansive interpretations that result in a deeply asymmetric institutional geography among the federation's constituent entities.

This asymmetry took on academic urgency after the Federal Supreme Court's (STF) 2018 ruling on the Question of Order in Criminal Action No. 933. By restricting the scope of the forum privilege at the federal level to crimes committed in the exercise of, and on account of, the office, the Supreme Court catalyzed varied rearrangements in state arenas. While some units sought symmetry with the federal model, others maintained or expanded jurisdictional shielding to bureaucratic categories and security forces, showing that the organization of the subnational Judiciary responds to incentives that go beyond mere legal technique¹.

The research problem motivating this study lies in the unjustified disparity between these local arrangements, in which the intensity of protection ranges from a minimum of three categories in the Federal District to a ceiling of 12 in states such as Rio de Janeiro and Piauí. The question is whether this institutional hypertrophy is a functional imperative or a mechanism of elite preservation operated within what may be termed subnational coalition federalism. In this scenario, jurisdictional prerogative ceases to be a guarantee tied to the office and becomes a piece of the political machinery, ensuring mutual protection among actors in environments marked by high transaction costs and judicialization.

The study optimizes the collection of primary data by employing Natural Language Processing (NLP) techniques through the Regex library and context windows within the Python ecosystem. This automated approach provides a significant gain in scale and chronological depth, allowing for the rapid scanning of the raw texts of all state constitutions updated through 2024.

To ensure a gold-standard level of scientific reliability, the results of the computational filter were subjected to full auditing through manual legal hand-coding, mitigating the risk of false positives arising from normative semantic ambiguities.

To investigate the determinants of this phenomenon, the study tested three fundamental hypotheses linked to institutional quality and the political environment. The first posits that opacity (low transparency) facilitates the maintenance of privileges; the second suggests that low public administration effectiveness encourages the use of the forum privilege as an extractive institution; and the third argues that party fragmentation raises the need for institutional bargaining chips. To this end, forum intensity was cross-referenced with the indices of the Escala Brasil Transparente (EBT), the Ranking de Competitividade (CLP), and the Effective Number of Parties (NEP).

The analytical strategy adopts mixed methods, combining classical inferential statistics with *crisp-set Qualitative Comparative Analysis* (csQCA). This approach is justified by the nature of the sample (*small-N*), allowing the study to identify both global correlation trends and complex configurations of causal sufficiency that lead to the expansion of the forum privilege. The integration of these techniques makes it possible to understand not only whether the variables are associated, but also under which specific conditions they interact to produce jurisdictional shielding.

The quantitative results reveal patterns consistent with the elite-preservation thesis. The statistical analysis found an association between this privilege and the Public Administration Effectiveness variable (Centro de Liderança Pública, 2024): states with lower administrative delivery capacity tend to compensate for this weakness with more extensive forum regimes, using the Judiciary as an institutional shield against governmental inefficiency.

The configurational analysis via csQCA deepens this diagnosis by revealing the existence of an institutional "perfect storm." The truth table shows that the configuration of low transparency, low effectiveness, and high party fragmentation (configuration [0,0,1]) constitutes a sufficient path to forum hypertrophy. This finding shows that, when informational opacity combines with administrative weakness and political dispersion, the institutional system converges toward the creation of jurisdictional safety zones that protect the bureaucratic and political leadership from the rigor of first-instance jurisdiction.

¹ AP 933 serves as the catalyzing historical milestone, but the article analyzes the cross-sectional static equilibrium configuration consolidated in 2024.

The following sections detail the mapping carried out via NLP, discuss the statistical and configurational evidence, and finally argue that containing these jurisdictional castes requires more than legal reforms: it demands the strengthening of governance and active transparency. The atypical forum privilege is, ultimately, a strategic response to the precariousness of republican institutions at the regional level.

2 Between prerogative and privilege: the institutional engineering of special jurisdiction in Brazil

Forum privilege (*foro por prerrogativa de função*), often referred to by the term “*foro privilegiado*,” is a legal institute that shifts jurisdiction to prosecute and try certain authorities to higher-ranking courts. The fundamental logic of this mechanism lies in recognizing the relevance of the public office held, assigning a higher body to conduct the trial. Although it has historical roots in estate-based privileges, its contemporary nature within the Brazilian legal system is strictly functional, and should, in theory, be tied only to the period in which the office is held and to conduct related to it (Tavares Filho, 2015).

The classic justifications for maintaining this special forum are based on protecting functional independence and ensuring impartiality. The aim would be to shield officeholders from political pressure or local persecution that could influence a first-instance judge (Tavares Filho, 2015).

In Latin American context, the design of these institutions often occurred in the shadow of democratic transitions and coup threats, aiming to prevent heads of state from being persecuted by political opponents shortly after leaving power. However, the effectiveness of this model is widely questioned from an empirical standpoint (Oliveira; Gomes Neto; Barros, 2022).

The report titled “*Supremo em Números*” reveals that the Court faces systemic difficulties in fulfilling its mission of trying original criminal actions. Data indicate that the excess of internal appeals, the time taken until conclusion for the reviewing justice, and, above all, the overwhelming frequency of declined jurisdiction, undermine the delivery of substantive justice (Falcão *et al.*, 2017).

This dysfunction feeds the perception of the forum privilege as a mechanism for preserving a caste protected from the rigor of ordinary law. Gomes Neto and Carvalho (2021) discuss how the STF, when acting as a first-instance court, may adopt self-restraint or selectivity, especially in situations that go beyond constitutional review.

The extent of the privilege (the number of authorities benefiting from it) is influenced by each country's institutional quality, suggesting that forum privilege can be instrumentalized as a shield in low-accountability environments, transforming a functional prerogative into a privilege of an almost personal nature (Oliveira; Gomes Neto; Barros, 2022).

3 Forum privilege in Brazilian institutional design

Analyzing the asymmetry in the distribution of forum privilege across Brazilian states initially requires understanding the architecture of national federalism. Political authority in federal systems is inherently dispersed, conditioned by the institutional design that regulates the autonomy of subnational entities. In Brazil, this autonomy allows federative units to operate as arenas of legislative self-organization, resulting in arrangements that can either deepen democracy or create mechanisms for insulating local political elites (Arretche, 2004).

This decentralization, however, does not occur in a power vacuum. Brazilian federalism is marked by a delicate balance between national sovereignty and state autonomy. In the field of the Judiciary, this autonomy translated into states' capacity to mirror or expand the guarantees of the Federal Constitution. The problem arises when symmetry ceases to be a principle of harmony and becomes a pretext for the hypertrophy of procedural guarantees that find no grounding in public functionality (Arretche, 2004).

Stepan (1999) classifies certain federations as institutions that constrain majority power (*demos-constraining*), since a federation's institutional design can be purposefully constructed to protect minority or specific-group interests against the will of the national majority. In the Brazilian subnational case, the expansion of forum privilege acts as a *demos-constraining* mechanism, insofar as it removes the trial of public officials from ordinary jurisdiction (which is closer to social oversight).

Brazilian federalism is characterized by an institutional symmetry in which all federative units formally hold the same powers, even though they operate within a federation that is markedly asymmetric from a socioeconomic standpoint. This uniformity is reinforced by the detailed nature of the constitutional text and by the interpretation of the Federal Supreme Court, which compels state constitutions to reflect the federal paradigm, significantly reducing the room for local normative innovation (Souza, 2005).

In this scenario, the expansion of subnational jurisdictional prerogatives emerges as an elite strategy for navigating an environment of low fiscal oversight and historical inequalities, transforming administrative autonomy into a resource for political preservation amid tensions between the center's efficiency demands and the institutional reality of the periphery (Souza, 2005).

The federative arrangement established by the 1988 Constitution converted state Courts of Justice into genuine subnational constitutional courts, responsible for safeguarding the integrity of local constitutions against state and municipal normative acts.

However, the empirical analysis of this institutional design reveals paradoxical behavior, marked by a predominance of decisions that avoid ruling on the merits through procedural obstacles or prolonged omissions. This tendency toward non-adjudication in sensitive political arenas weakens regional constitutional review and signals a weakness in the incentive engineering of subnational courts, creating an institutional environment in which the absence of effective oversight can facilitate the consolidation of mutual-protection mechanisms among local branches of government (Gomes Neto; Miranda; Barbosa, 2010).

The legal and political nature of this prerogative has been the subject of intense debate in the higher courts. Gomes Neto and Carvalho (2021) note that the Federal Supreme Court's actions, especially in the judgment of AP 933, marked an attempt to moralize the institute, limiting it to crimes committed in *the exercise of, and on account of, the office*. However, this restriction at the federal level was not followed uniformly by the state legislatures, which hold the power to amend their local constitutions.

This state-level resistance to restricting the forum privilege reveals what Oliveira, Gomes Neto e Barros (2022) call the formation of the *highest caste in the defendants' seat*: jurisdictional prerogative has ceased to be a protection for functional independence and has consolidated itself as a privilege of the bureaucratic class. The comparative analysis shows that maintaining these zones of jurisdictional comfort is a deliberate strategy for preserving power in low-accountability democracies.

The persistence of these institutions can be explained through the Theory of Extractive Institutions, according to which extractive institutions are designed to extract rents and protect the interests of a governing elite, to the detriment of the development of inclusive institutions. In the Brazilian subnational context, a hypertrophic forum-privilege regime functions as an extractive tool of legal protection, operating as a shield that allows the political elite to navigate environments of low administrative effectiveness without the immediate risk of ordinary judicial accountability (Acemoglu; Robinson, 2012).

Institutional quality is the main predictor of a nation's success or failure. Transposing this logic to the subnational level, it can be observed that, in states where public administration effectiveness is low, the incentive to create shielding mechanisms is significantly greater. Inefficiency generates an environment of political vulnerability that elites attempt to mitigate by capturing constitutional design for purposes of personal and legal security (Acemoglu; Robinson, 2012).

In this sense, governance quality and public transparency act as moderators of forum-privilege expansion. Institutional opacity is fertile ground for the maintenance of privileges. Where social oversight is hindered by a lack of active transparency, the political elite encounters less resistance in institutionalizing prerogatives that, ultimately, violate the republican principle of equality before the law (Oliveira; Gomes Neto; Barros, 2022).

The political dimension of this expansion also resonates with Tsebelis's (1997) theory of *veto players*: the greater the number of actors whose consent is required to change the status quo, the greater the difficulty of institutional reform. In Brazilian federalism, highly fragmented state legislatures (with a high effective number of parties – NEP) function as arenas of intense negotiation, where granting/maintaining forum privilege for specific categories can be used as a bargaining chip for maintaining governing coalitions.

Tsebelis (1997) argues that party fragmentation raises the costs of political transactions. In states marked by such dispersion, the creation of jurisdictional shields acts as a resource for subnational governability. By ensuring

that certain bureaucratic groups or political allies hold the prerogative of being tried only in top-tier courts (Courts of Justice), the state Executive is able to cement loyalties and reduce friction with the first-instance justice system.

Additionally, Segal and Spaeth's (2002) attitudinal model suggests that top-court decisions are frequently influenced by ideological preferences and political pressures. By ensuring that the trial of its members takes place only in the Courts of Justice, whose appellate judges are, in part, drawn from the constitutional "fifth" and appointed through local political power, state elites maximize their chances of obtaining favorable outcomes compared to being tried by career judges at the base of the system.

Institutional design affects the State's capacity to implement policies and respond to social demands. When the justice system is fragmented by special forum regimes, the effectiveness of the fight against corruption and mismanagement is compromised. The dispersion of forum-privilege proceedings across top-tier courts, which are often ill-equipped for primary criminal instruction, results in statute-of-limitations lapses and impunity (Weaver; Rockman, 1993).

The integration of these theoretical frameworks makes it possible to observe that the intensity of the subnational forum privilege is a conjunctural and multicausal phenomenon. It is not merely a matter of colonial heritage or legal tradition, but a strategic response to environments of low state capacity. Where institutions are inclusive and effective, the need for forum privilege declines; where institutions are extractive and effectiveness is low, jurisdictional shielding becomes the rule of political survival (Acemoglu; Robinson, 2012).

Federative autonomy, celebrated by Arretche (2004) as a pillar of Brazilian democracy, reveals its hidden face in the asymmetry of the forum privilege. The disparity among states does not reflect a diversity of regional needs, but a disparity in institutional capture. The empirical analysis proposed in this article seeks precisely to verify whether these theoretical concepts of extractivism and transaction costs find support in the concrete data of the federative units in 2024.

The STF's role as a moderator of this centrifugal federalism has been ambiguous. If, on one hand, there is a movement toward restriction, on the other, the persistence of atypical categories in state constitutions shows that symmetry oversight is still insufficient. The national Judiciary appears to hesitate to intervene in state autonomy, even when that autonomy is used to subvert basic republican principles (Gomes Neto; Carvalho, 2021).

This reveals a gap in the literature: the lack of studies that cross-reference the quality of public management (effectiveness and transparency) with the design of subnational criminal norms. Most studies focus either on judicial statistics or on pure constitutional doctrine. This work proposes to fill that gap, using data science and QCA to test whether the caste mentioned by Oliveira, Gomes Neto e Barros (2022) is, in fact, more numerous where the State is more inefficient.

Party fragmentation (NEP), consolidated through Tsebelis's (1997) logic, will serve as the thermometer for measuring whether the forum privilege is a coalition tool. In states where governability requires negotiating with dozens of parties, forum prerogative becomes the institutional resource of lowest financial cost and highest political value for local elites, consolidating what we term the architecture of subnational shielding.

It is expected that states that fail to deliver transparency and governmental effectiveness will show the highest forum-intensity indices, for which the Theory of Extractive Institutions (Acemoglu; Robinson, 2012) provides the grounding for understanding why states such as Rio de Janeiro and Piauí diverge so drastically from more efficient units: jurisdictional protection is the extracted rent.

4 Decoding the engineering of institutional protection: methodological strategies for mapping subnational shielding

This investigation adopted a mixed-methods research design (*mixed-methods research*), structured to capture the complexity of "jurisdictional shielding" across the 26² Brazilian federative units. The methodological choice is justified by the need to transcend purely doctrinal analysis, applying empirical rigor that combines the processing power of Artificial Intelligence with the analytical depth of Boolean logic. The study is based on primary and secondary data collected for the year 2024, ensuring a faithful snapshot of the contemporary institutional landscape.

² This study's census strategy was strictly limited to subnational units endowed with political-administrative autonomy to self-organize their justice systems. For this methodological reason, the Federal District was excluded from the final sample (n=26), given that its judicial organization is an exclusive competence of the Union, under art. 21, XIII, of the Federal Constitution, which prevents the district's constitution-drafters from shaping the rules of original criminal jurisdiction symmetrically to the member states.

The model integrates three analytical dimensions: data mining via Natural Language Processing (NLP), linear statistical inference, and *crisp-set Qualitative Comparative Analysis* (csQCA). This triangulation allows the study not only to identify global trends of association between variables, but also to uncover the specific causal configurations that function as sufficient conditions for the occurrence of subnational forum-privilege hypertrophy.

The Dependent Variable (DV), called Forum Intensity, is discrete quantitative in nature and represents the degree of jurisdictional protection granted by the state constitution-drafter. It was built from an index ranging from 0 to 12, in which each point corresponds to the presence of forum privilege for a specific category of authority (e.g., police chiefs, military commanders, public defenders). The justification for this variable lies in the need to measure the extent of “shielding” beyond top-tier authorities, capturing the legislative effort to expand privileges. The primary source consists of the texts of the 26 State Constitutions and the Organic Law of the Federal District (2024).

As for the Independent Variables (IVs), the model tests three explanatory vectors: IV1 (Transparency), continuous in nature, uses the scores from the Escala Brasil Transparente (Brasil, 2024). The justification rests on the hypothesis that institutional opacity reduces the reputational costs of creating privileges; IV2 (Administration Effectiveness), also continuous, is based on the Ranking de Competitividade dos Estados (Centro de Liderança Pública, 2024), justified by the premise that administrative inefficiency encourages the pursuit of legal shielding as a resource for local elites’ political survival; finally, IV3 (Party Fragmentation) measures the political-legislative environment via the Effective Number of Parties (NEP) in the state legislatures. This variable is justified by transaction-cost theory: in environments with many veto players, forum privilege becomes a low-budgetary-cost, high-political-value institutional “bargaining chip” for maintaining governing coalitions. Data for this variable were collected from the repositories of the Regional Electoral Courts and the legislative houses for the current legislature.

Table 1: Summary of model variables

Variable	Nature	Justification	Source
DV: Forum Intensity	Discrete Quantitative	Measures the extent of state jurisdictional shielding.	Constitutional texts (2024) via NLP.
IV1: Transparency	Continuous Quantitative	Assesses the impact of social oversight on containing privileges.	Escala Brasil Transparente (Brasil, 2024)
IV2: Administration Effectiveness	Continuous Quantitative	Tests the relationship between administrative inefficiency and legal protection.	Public Administration Efficiency Pillar of the Ranking de Competitividade dos Estados (Centro de Liderança Pública, 2024)
IV3: Fragmentation (NEP)	Continuous Quantitative	Assesses the forum privilege as a resource for governability and political exchange.	Electoral Data / State Legislatures.

Source: prepared by the author.

The first research tool used was natural language processing (NLP), computational and artificial-intelligence in nature. Its purpose in the study was the exhaustive, automated extraction of normative data from the raw texts of the state constitutions.

This tool is fully suited to the research problem, as it overcomes human fallibility and the obsolescence of secondary databases, allowing the researcher to analyze 5,000-character context windows to identify mentions of prerogatives that are often hidden in provisions far removed from the main articles.

For the analysis of global trends, Pearson correlation, an inferential statistical tool, was employed. The purpose was to test the strength and direction of the linear association between institutional quality and forum intensity. This technique is suitable as an initial exploratory step, as it allows verification of whether isolated hypotheses (such as lower effectiveness generating higher forum intensity) are supported across the 26 Brazilian cases, providing the empirical basis for the discussion of statistical significance and sociopolitical trends.

The third tool is Qualitative Comparative Analysis (csQCA), configurational in nature and based on Boolean algebra. Its purpose is to identify paths or combinations of variables that lead to an outcome (high forum intensity), recognizing that different causes can produce the same result (equifinality). csQCA is ideal for this research problem due to its suitability for small samples (*small-N*), in which causal complexity prevents any single variable from explaining the entire phenomenon, allowing the “perfect storm” among opacity, inefficiency, and fragmentation to be mapped (Gomes Neto; Albuquerque; Barbosa, 2025).

The model was executed in a Python environment (Google Colab), using libraries specialized in data science. This tool is integrative and automating in nature, allowing the entire workflow, from data collection via NLP to the generation of scatter plots and truth tables, to occur in a transparent and reproducible manner.

The calibration of data for the configurational analysis followed the median criterion for dichotomizing the variables into crisp sets (0 and 1). This analytical technique aims to ensure that the separation between “high” and “low” performance reflects the actual distribution of the Brazilian sample. The suitability of this procedure lies in protecting the model against distortions caused by extreme cases (*outliers*), allowing the resulting truth table to be a robust representation of the power and governance configurations that shape the architecture of jurisdictional protection across the states.

5 Anatomy of a shield: empirical evidence of shielding in coalition federalism

The analysis of the results begins with an observation of the geography of forum privilege across Brazilian territory, revealing a scenario of institutional heterogeneity that challenges simplistic theses of constitutional symmetry. The census mapping carried out via Natural Language Processing (NLP)³ and manually validated for the year 2024 shows that federative autonomy has been the driving force behind unprecedented normative dispersion.

The construction of the Subnational Forum Intensity index followed a rigorous Empirical Constitutional Law protocol, aiming to operationalize the abstract concept of institutional shielding into a discrete quantitative metric. The central challenge was overcoming the obsolescence of secondary databases, which required the extraction of primary data directly from the 26 State Constitutions and the Organic Law of the Federal District, in their versions in force in 2024.

The methodological procedure began with the application of Natural Language Processing (NLP) techniques in the Python language. The algorithm was designed to perform a semantic scan of the raw texts, using 5,000-character context windows around anchor terms such as “original jurisdiction,” “to prosecute and try,” and “Court of Justice.” This expanded window was essential for capturing provisions and paragraphs that, in legislative drafting, are often located far from the main text of the article, ensuring that prerogatives for categories such as police chiefs and military commanders, frequent targets of recent amendments, were not omitted.

The metric was structured additively, based on a list of 12 categories of authorities from the three branches of government and oversight bodies. For each category holding special forum privilege in the respective state Court of Justice for ordinary crimes, a binary value of 1 was assigned; for the absence of such a provision or for being subject to ordinary jurisdiction, a value of 0 was assigned. The sum of these variables resulted in an index ranging from 0 to 12, allowing for a standardized comparison of the breadth of jurisdictional protection across federative units. To ensure reliability, the results of the automated extraction were subjected to a manual hand-coding validation step, correcting any linguistic ambiguities typical of legal-normative text.

Although the categories of Governor, Lieutenant Governor, and State Deputies appear as institutional constants present in all federative units, their inclusion in the additive index is theoretically justified by the need to measure the cumulative load of absolute jurisdictional immunity within the subnational arena.

It should be noted that a sensitivity analysis, excluding these four baseline categories, demonstrated strict analytical stability: the relative variation among subnational units remained unchanged, preserving the exact median-dichotomization structure used in the configurational model.

³ Carried out using Python language.

The table below summarizes the census mapping carried out, detailing the composition of the index for each unit of the federation:

Table 2: Composition of the forum intensity index by federative unit (2024).

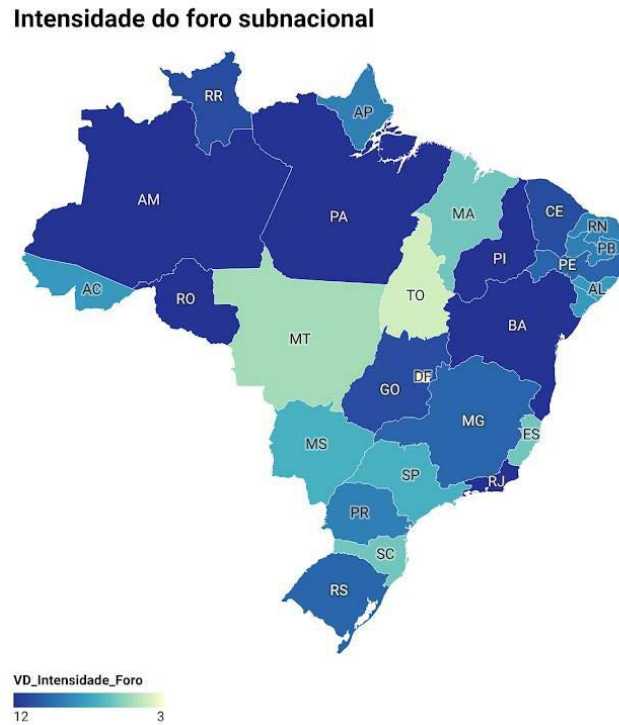
State	Main Categories Holding Forum Privilege (local state court)	Final Index
AM	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, Del, CM, TC	12
BA	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, Del, CM, TC	12
PA	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, Del, CM, TC	12
PI	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, Del, CM, TC	12
RJ	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, Del, CM, TC	12
RO	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, Del, CM, TC	12
CE	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, CM, TC	11
GO	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, CM, TC	11
RR	Gov, V-Gov, Dep, Sec, PGJ, PGE, DPG, Juízes, MP, CM, TC	11
MG	Gov, V-Gov, Dep, Sec, PGJ, PGE, Juízes, MP, CM, TC	10
PE	Gov, V-Gov, Dep, Sec, PGJ, PGE, Juízes, MP, CM, TC	10
RS	Gov, V-Gov, Dep, Sec, PGJ, PGE, Juízes, MP, CM, TC	10
AP	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, CM, TC	9
PB	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, CM, TC	9
PR	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, CM, TC	9
RN	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, CM, TC	9
AC	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, TC	8
AL	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, TC	8
SE	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP, TC	8
MS	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP	7
SP	Gov, V-Gov, Dep, Sec, PGJ, Juízes, MP	7
ES	Gov, V-Gov, Dep, Sec, Juízes, MP	6
MA	Gov, V-Gov, Dep, Sec, Juízes, MP	6
SC	Gov, V-Gov, Dep, Sec, Juízes, MP	6
MT	Gov, V-Gov, Dep, Sec, TC	5
TO	Gov, V-Gov, Dep, Sec	4

Source: prepared by the author via Natural Language Processing (NLP) on State Constitutions.

Legend: Gov (Governor), V-Gov (Lieutenant Governor), Dep (State Deputies), Sec (Secretaries of State), PGJ (Attorney General of Justice), PGE (State Attorney General), DPG (Public Defender General), MP (Members of the Public Prosecutor's Office), Del (Police Chiefs), CM (Military Police Commanders), TC (Members of the Court of Accounts).

The variation in the intensity index, which ranges between a restrictive core and a hypertrophic periphery, suggests that the choices made by state constitution-drafters do not bear a strictly dependent relationship to the federal model, but instead respond to endogenous political pressures within each federative unit.

Figure 1: Forum intensity in subnational constitutional designs



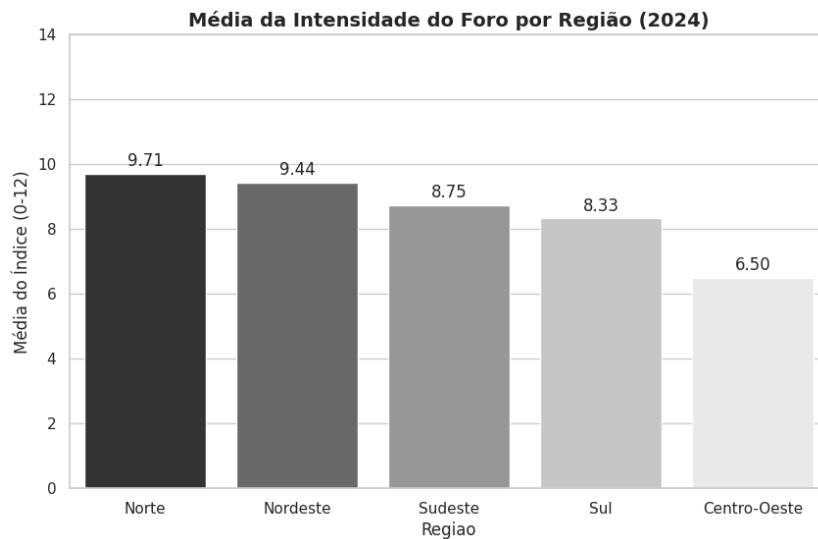
Source: prepared by the author.

The cartographic visualization makes it possible to immediately identify the poles of maximum shielding.

States such as Rio de Janeiro, Amazonas, and Piauí reach the ceiling of the index (12), extending the forum privilege to categories that go beyond the hard core of politics, reaching bureaucratic echelons and security forces. By contrast, Santa Catarina shows an institutional design closer to the republican spirit.

This geographic disparity is the first indication that the intensity of protection is a phenomenon conditioned by the quality of regional governance.

Figure 2: Mean forum intensity by region (2024)



Source: prepared by the author.

The aggregation of data by geographic region (Figure 2) reveals a clear spatial component in the architecture of shielding. The North (9.71) and Northeast (9.44) regions show the highest average forum intensity, contrasting with the Center-West (6.50). This regional pattern suggests that the phenomenon also has roots in local political cultures and differing levels of institutionalization and social oversight.

Beyond the spatial description, the investigation moved on to testing the linear association between the independent variables and the outcome analyzed. The statistical results, although operating within a small sample universe (N=26), reveal trends that corroborate the literature on extractive institutions.

The interpretation of the statistical tests in this study privileges substantive significance over classical probabilistic inference. Given that the research covers the entirety of the federative units (N=26), this is a census study rather than a random sample.

In this context, the p-value loses its function of estimating sampling error, since no such error exists when observing the entire population: the correlation coefficients come to represent the actual parameter of the phenomenon within the time frame analyzed. Accordingly, coefficients of substantial magnitude are treated as factual evidence of institutional trends, regardless of marginal fluctuations at the boundaries of probability.

Table 3: Results of Pearson (r) and Spearman (rs) correlation tests

Transparency (EBT):	Public Administration Effectiveness (CLP):	Party Fragmentation
Pearson (r): -0.313	Pearson (r): -0.377	Pearson (r): 0.237
Spearman (r _s): -0,307	Spearman (r _s): -0,358	Spearman (r _s): 0,182

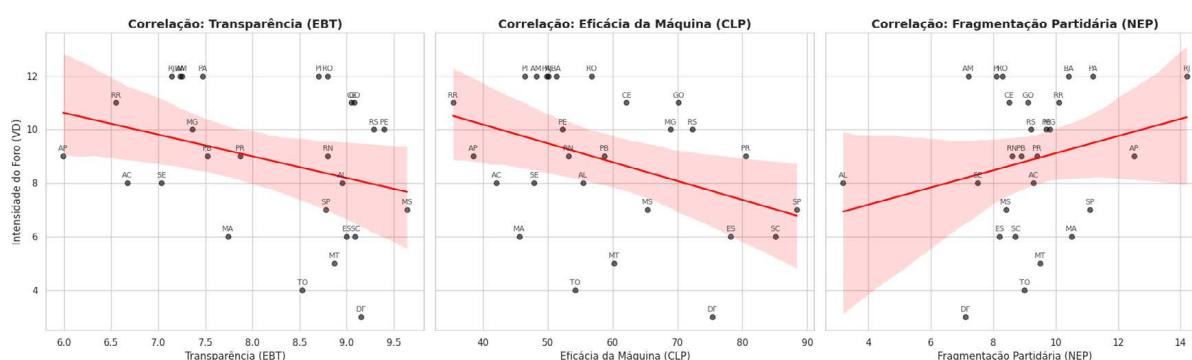
Source: prepared by the author.

The correlation analysis between Public Administration Effectiveness (CLP) and Forum Intensity produced a Pearson (r) coefficient of -0.377 and a Spearman (r_s) coefficient of -0.358.

There is an inversely proportional relationship: in states where governmental effectiveness is lower, the propensity to create forum-privilege mechanisms is significantly higher. From a theoretical standpoint, administrative inefficiency acts as a driver for the pursuit of legal protection, since, faced with an inability to produce legitimacy through performance, elites seek institutional security against the judicialization of their failures.

The Transparency variable (Brazil, 2024) also showed a negative correlation (r = -0.313; r_s = -0.307), reinforcing the argument that opacity facilitates the preservation of privileges. The direction of the association is consistent with the premise that environments marked by low social oversight offer lower reputational costs for the expansion of prerogatives. The lack of active transparency functions as a smokescreen that allows expansive constitutional amendments to pass with little public resistance.

Charts 1 to 3: Transparency, effectiveness, and fragmentation vs. forum intensity



Source: prepared by the author

On the other hand, Party Fragmentation (NEP) showed a positive association (r = 0.237; r_s = 0.182), suggesting that environments with greater political dispersion require institutional coalition-building resources. As posited by Tsebelis (1997), in legislatures with many veto players, governability becomes more costly.

Granting forum privilege to specific categories of political and bureaucratic allies functions as a non-budgetary bargaining chip of very high value, serving to cement interests and shield the governing coalition against interference from the lower courts.

However, the linear analysis has limits inherent to explaining multicausal phenomena. This is where Qualitative Comparative Analysis (csQCA) offers the necessary analytical leap (Gomes Neto; Albuquerque; Barbosa, 2025).

By dichotomizing the variables and subjecting them to Boolean logic, it was possible to identify how these conditions interact in logical configurations of causal sufficiency. The resulting truth table systematizes the eight possible combinations, revealing which of them invariably converge on the outcome of high forum intensity.

Table 4: Truth table of the csQCA model

X1 (Transp.)	X2 (Effectiveness)	X3 (Fragm.)	Cases (State)	N	Consistency (Y)	Result (Y)
0	0	0	AM, SE, TO	3	0,33	0
0	0	1	AC, AP, BA, MA, PA, RJ, RR	7	0,71	1
0	1	0	PB	1	1,00	1
0	1	1	MG, PR	2	1,00	1
1	0	0	PI, RN	2	1,00	1
1	0	1	PE	1	1,00	1
1	1	0	AL, CE, ES, MS, RO, SC	6	0,28	0
1	1	1	GO, MT, RS, SP	4	0,50	0

Source: prepared by the author.

Notes:

1. The independent variables (X1, X2, X3) and the dependent variable (Y) were dichotomized using the median.
2. The value 1 represents the presence of the condition at a high level (High Transparency, High Effectiveness, High Party Fragmentation, and High Forum), while the value 0 represents its absence or placement below the sample median.

Beyond the linear trends, the configurational analysis via csQCA, applying a strict consistency threshold of 1.00 for coding the positive outcome (Y=1), revealed the causal mechanics of the phenomenon through Boolean minimization. Contrary to the initial assumption of a simple cumulative effect, the parsimonious solution revealed that the hypertrophy of the subnational forum privilege is explained by a logic of institutional asymmetry, represented by the formula:

$$\text{TRANSPARÊNCIA} * \sim \text{EFICÁCIA} + \sim \text{TRANSPARÊNCIA} * \text{EFICÁCIA} \rightarrow \text{ALTO FORO}$$

This configurational model shows a perfect solution consistency (1.00) and a combined raw coverage that explains the cases symmetrically. The first path (TRANSPARENCY * ~EFFECTIVENESS) has unique coverage, covering the states of Piauí, Rio Grande do Norte, and Pernambuco, demonstrating that, even under informational accountability, administrative weakness pushes elites toward legal shielding.

The second path (~TRANSPARENCY * EFFECTIVENESS) covers the cases of Paraíba, Minas Gerais, and Paraná, showing that opacity acts as a permissive condition even in public administrations considered efficient.

Party fragmentation (NEP) was eliminated by the minimization process as redundant, indicating that the design of the forum privilege responds primarily to structural governance failures, rather than to mere short-term legislative bargaining.

In contrast to this extractive model, an apparent virtuous path can be observed, followed by federative units such as the Federal District and Santa Catarina: the configuration identified for the low-forum outcome correlates strongly with high levels of effectiveness and transparency. Where public administration functions well and citizen oversight is facilitated by active transparency, the political cost of maintaining or expanding the forum privilege becomes prohibitive. The Federal District, in particular, illustrates how greater linkage to federal oversight and more efficient management constrain local shielding ambitions.

The interpretation of this data, in light of Acemoglu and Robinson (2012), allows us to conclude that forum intensity is a thermometer of the nature of Brazil's subnational institutions. States that produce a high forum privilege are, in essence, operating under a logic of extractive institutions. They use state constitutional sovereignty to extract protection and guarantee the legal security of a restricted group, while inclusive institutions, marked by effective equality before the law, remain a distant promise in these regions.

The equifinality revealed by the csQCA demonstrates that there is more than one path to privilege, but the path of governmental efficiency appears to be the only effective antidote against it. Even states with high party

fragmentation manage to contain the expansion of the forum privilege if they have high levels of effectiveness and transparency. This suggests that management quality is the main buffer against institutional capture by local elites; good governance reduces the political need for the forum privilege.

Parliamentary fragmentation (NEP), although it had the least expressive p-value in the linear model, proved to be a vital component in the QCA, indicating that party dispersion does not cause the forum privilege in isolation, but acts as a potent catalyst when the institutional environment is already degraded (opaque and inefficient). The forum privilege is, therefore, an essential element in the functioning of fragile and politically atomized state governments.

The findings validate the use of natural language processing (NLP) as a constitutional auditing tool. By capturing 2024 data, the study signals that shielding is not a relic of the past, but a phenomenon in constant legislative updating. The ability of state legislatures to amend such protection demonstrates an extractive dynamism that demands constant vigilance on the part of the federal oversight system and academia.

The anatomy of jurisdictional protection presented here reveals that subnational Brazil lives under two distinct regimes of justice: a republican one, in which efficiency and transparency limit privileges, and an extractive one, in which forum privilege is the defensive wall of an elite that operates at the margins of state capacity. The results suggest that reforming the forum privilege should not be viewed merely as a change in criminal legislation, but as an effort in institutional engineering aimed at strengthening governance and public integrity.

If autonomy allows states to create jurisdictional castes to compensate for their own inefficiency, it is being used against the very purpose of the 1988 federative pact. Forum intensity is the clinical symptom of a State in a crisis of legitimacy, since the cross-referencing of the statistical and configurational data has proven that this shielding is strategic, deliberate, and multifactorial.

6 Limitations and methodological implications

Among the inherent limits of the proposed research design is the cross-sectional and synchronic nature of data collected for 2024, which precludes the formal modeling of longitudinal trajectories of constitutional amendment over time.

Moreover, despite the rigor of the qualitative calibration via the median for the csQCA, the crisp-set approach operates under rigid binary categorizations, sacrificing internal gradual variations that fuzzy-set-based approaches could capture in future research.

Finally, it should be noted that the additive intensity index measures the strictly normative-formal dimension of jurisdictional protection, calling for subsequent research agendas focused on actual judicial behavior to verify the effective rate of impunity and criminal statute-of-limitations lapses in the state Courts of Justice.

7 Conclusions

This investigation sought to decipher the political and institutional logic that sustains the expansion of the forum privilege in Brazilian states, starting from the premise that federative autonomy has been captured for the creation of jurisdictional shielding zones. At the conclusion of this census study of the 27 federative units, based on 2024 primary data and processed via artificial intelligence (NLP), the findings offer a forceful diagnosis: the intensity of the subnational forum privilege is not an accidental phenomenon, but a measurable byproduct of low institutional quality and precarious regional governance.

The initial research problem asked which factors determined the asymmetry in the protection of local elites. The statistical findings resolve this question by pointing to public administration effectiveness as the most robust predictor of forum hypertrophy. The strong negative association identified ($r = -0.377$) shows that the forum privilege operates as an extractive institution, in the sense used by Acemoglu and Robinson (2012). In contexts where the State demonstrates an inability to deliver and be efficient, political elites resort to constitutional design to extract a rent of protection, converting the Judiciary into a shield against ordinary accountability.

The configurational analysis via csQCA deepened the resolution of the problem by uncovering the mechanics of the perfect storm: identifying that the configuration composed of low transparency, low effectiveness, and high party fragmentation constitutes a sufficient path to the high-forum outcome demonstrates that shielding is a governability resource. In atomized legislatures, where political transaction costs are high, the expansion of forum prerogative functions as the institutional bargaining chip that cements fragile coalitions, ensuring elite cohesion around a project of self-preservation.

Furthermore, this study's methodological innovation (the use of NLP to mine state constitutions in near real time) proved essential in revealing that the phenomenon is dynamic. The finding that Rio de Janeiro and other federative units maintain maximum-protection regimes in 2024, defying the restrictive trend signaled by the Federal Supreme Court in AP 933, suggests that judicial symmetry oversight remains permeable to pressure from subnational elites. States' self-organization autonomy has been used not to improve the administration of justice, but to consolidate a caste immune to the rigor of first-instance jurisdiction.

In light of this evidence, this study proposes a proactive agenda for institutional reform. It is argued that the Federal Supreme Court should adopt a more rigorous and proactive symmetry scrutiny, expressly prohibiting the extension of forum privilege to bureaucratic categories and security forces (such as military commanders and police chiefs) that have no parallel in the federal constitutional design.

The maintenance of these atypical privileges violates the republican principle and deepens federative inequality, creating a caste of jurisdictional "first-class" citizens in states marked by democratic fragility.

As a future research agenda, it is suggested that this methodology be expanded to the analysis of judicial behavior in the state Courts of Justice. It is necessary to investigate whether the formal shielding mapped in this article translates into actual impunity, through the analysis of statute-of-limitations and conviction rates in cases of original jurisdiction. Another promising avenue lies in the study of comparative subnational constitutionalism, examining whether the elite-protection dynamic observed in Brazil resonates in other Latin American federations that adopt similar models of forum privilege.

If Brazilian federalism aspires to maturity, it cannot allow decentralization to serve as a screen for legal extractivism. Strengthening transparency and governmental effectiveness emerges not only as a management imperative, but as the only path capable of dismantling the political incentives that sustain the forum privilege. Only by aligning state autonomy with republican rigor will it be possible to ensure that justice, in any unit of the federation, is truly blind to rank and office.

References

- ACEMOGLU, Daron; ROBINSON, James A. **Por que as nações fracassam**: as origens do poder, da prosperidade e da pobreza. Tradução de Cristiana Serra. Rio de Janeiro: Elsevier, 2012.
- ARRETCHE, Marta. Federalismo e políticas sociais no Brasil: problemas de coordenação e autonomia. **São Paulo em Perspectiva**, São Paulo, v. 18, n. 2, p. 17-26, 2004.
- BRASIL. Controladoria-Geral da União. **Escala Brasil Transparente (EBT)**. Brasília, DF: CGU, 2024. Disponível em: <https://www.gov.br/cgu/pt-br/assuntos/transparencia-publica/escala-brasil-transparente>. Acesso em: 11 maio 2026.
- CENTRO DE LIDERANÇA PÚBLICA (CLP). **Ranking de Competitividade dos Estados**. São Paulo: CLP, 2024. Disponível em: <https://www.rankingdecompetitividade.org.br/>. Acesso em: 11 maio 2026.
- FALCÃO, Joaquim; HARTMANN, Ivar A.; ALMEIDA, Guilherme da Franca Couto Fernandes de; CHAVES, Luciano. **V Relatório Supremo em Números**: o foro privilegiado e o Supremo. Rio de Janeiro: FGV Direito Rio, 2017.
- GOMES NETO, José Mário Wanderley; MIRANDA, Raquel Mendes; BARBOSA, Leon Victor de Queiroz. Federalism and judicial review: the role of Brazilian States' Courts of Appeal. In: CONGRESO LATINOAMERICANO DE CIENCIA POLÍTICA, 5., 2010, Buenos Aires. **Anais [...]**. Buenos Aires: Asociación Latinoamericana de Ciencia Política, 2010.
- GOMES NETO, José Mário Wanderley; CARVALHO, Ernani. Pretores condenando a casta? A atuação do Supremo Tribunal Federal no julgamento do "foro privilegiado". **Revista de Estudos Empíricos em Direito**, [s. l.], v. 8, p. 1-19, 2021.
- GOMES NETO, José Mário Wanderley; ALBUQUERQUE, Rodrigo Barros de; BARBOSA, Leon Victor de Queiroz. **Análise qualitativa comparativa**. Petrópolis: Editora Vozes, 2025.

OLIVEIRA, Tassiana; GOMES NETO, José Mário Wanderley; BARROS, Ana Tereza Duarte de Lima. THE HIGHEST CASTE ON THE DEFENDANTS' SEAT: Comparative institutional analysis of jurisdictional privileges in Latin American countries. **Direito, Processo e Cidadania**, Recife, v. 2, n. 2, p. 28-49, maio/ago. 2022.

RAGIN, Charles C. **The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies**. Berkeley: University of California Press, 1987.

SEGAL, Jeffrey A.; SPAETH, Harold J. **The Supreme Court and the attitudinal model revisited**. New York: Cambridge University Press, 2002.

SOUZA, Celina. Federalismo, desenho constitucional e instituições federativas no Brasil pós-1988. **Revista de Sociologia e Política**, Curitiba, v. 24, p. 105-121, jun. 2005.

STEPAN, Alfred. Para uma nova análise comparativa do federalismo e da democracia: federações que restringem ou ampliam o poder da demos. **Dados**, Rio de Janeiro, v. 42, n. 2, p. 197-251, 1999.

TAVARES FILHO, Newton. **Foro por prerrogativa de função no direito comparado**. Brasília, DF: Consultoria Legislativa da Câmara dos Deputados, 2015. (Estudo 2015-21981).

TSEBELIS, George. Processo decisório em sistemas políticos: veto players no presidencialismo, parlamentarismo, multicameralismo e multipartidarismo. **Revista Brasileira de Ciências Sociais**, São Paulo, v. 12, n. 34, p. 89-118, 1997.

WEAVER, R. Kent; ROCKMAN, Bert A. **Do institutions matter?: Government capabilities in the United States and abroad**. Washington: Brookings Institution Press, 1993.

Appendix A

Data matrix

State	Forum Intensity	Transparency EBT	Effectiveness CLP	Fragmentation NEP	Region
AC	8	6.67	42.1	9.29	N
AL	8	8.95	55.4	3.18	NE
AM	12	7.25	48.2	7.2	N
AP	9	5.99	38.5	12.52	N
BA	12	7.23	51.3	10.42	NE
CE	11	9.05	62.1	8.5	NE
ES	6	9.0	78.2	8.2	SE
GO	11	9.08	70.1	9.1	CO
MA	6	7.74	45.6	10.5	NE
MG	10	7.36	68.9	9.8	SE
MS	7	9.64	65.4	8.4	CO
MT	5	8.87	60.2	9.5	CO
PA	12	7.47	49.8	11.2	N
PB	9	7.52	58.7	8.9	NE
PE	10	9.4	52.3	9.7	NE
PI	12	8.7	46.5	8.1	NE
PR	9	7.87	80.5	9.4	S
RJ	12	7.14	50.1	14.2	SE
RN	9	8.8	53.2	8.6	NE
RO	12	8.8	56.8	8.3	N
RR	11	6.55	35.4	10.1	N
RS	10	9.29	72.3	9.2	SI
SC	6	9.09	85.1	8.7	S
SE	8	7.03	47.9	7.5	NE
SP	7	8.78	88.4	11.1	SE
TO	4	8.53	54.2	9.0	N

Appendix B

Python Script

```
!pip install PyPDF2 -q

import os
import re
import pandas as pd
import PyPDF2

def extrair_texto_pdf(caminho_arquivo):
    texto_completo = ""
    try:
        with open(caminho_arquivo, 'rb') as arquivo_pdf:
            leitor = PyPDF2.PdfReader(arquivo_pdf)
            for pagina in leitor.pages:
                texto_extraido = pagina.extract_text()
                if texto_extraido:
                    texto_completo += texto_extraido + " "
    except Exception as e:
        pass
    return texto_completo

def minerador_extremo_spaceless(texto_bruto):
    """
    Remove TODOS os espaços, hifens e pontuações.
    Se o PDF tem "V I C E - G O V E R N A D O R", ele vira "vicegovernador".
    """
    # Remove qualquer coisa que não seja letra ou número (destrói espaços e
    # pontuações)
    texto_condensado = re.sub(r'[\W_]+', '', texto_bruto.lower())

    # Procura a âncora condensada e pega os próximos 3000 caracteres
    # 'competeaotribunaldejustica' ou 'competencia...tribunaldejustica'
    padrao_ancora =
r"(?:competecabe|compet[eência).*?tribunaldejusti[cç]a(.*)?(?:art\d+|se[cç][aã]
o|t[ií]tulo)"
    bloco_match = re.search(padrao_ancora, texto_condensado)

    if not bloco_match:
        # Tenta uma âncora mais simples se falhar
        padrao_alt = r"tribunaldejusti[cç]a(.*.?.{10,2000})"
        bloco_match = re.search(padrao_alt, texto_condensado)

    if not bloco_match:
        return 0, "Falha Crítica Absoluta (PDF pode ser uma imagem morta sem
OCR)"

    bloco = bloco_match.group(1)

    # Dicionário condensado (sem espaços)
    dicionario_spaceless = {
        "Vice-Governador": r"vicegovernador",
        "Secretários de Estado": r"secret[aário[s]? (de)? estado",
        "Deputados Estaduais": r"deputado[s]? (estadual|estaduais)",
        "Prefeitos": r"prefeito[s]?",
        "Juizes Estaduais":
r"ju[ií]z(es)? (dedireito|estaduais|doestado|dacomarca)",
        "Membros do MP": r"membro[s]? dominist[eé]riop[uú]blico",
        "Procurador-Geral de Justiça": r"procuradorgeraldejusti[cç]a",
        "Procurador-Geral do Estado": r"procuradorgeraldoestado",
        "Defensor Público-Geral": r"defensorp[uú]blico(geral)?",
        "Comandante da PM": r"comandante(geral)?dapol[ií]ciamilitar",
        "Comandante dos Bombeiros": r"comandante(geral)?docorpodebombeiros",
        "Chefe da Polícia Civil":
r"(chefe|delegadogeral|diretorgeral)dapol[ií]ciacivil"
    }
}
```

```

autoridades = []
for nome, padrao in dicionario_spaceless.items():
    if re.search(padrao, bloco):
        autoridades.append(nome)

if not autoridades:
    return 0, "Nenhuma autoridade encontrada mesmo no modo Spaceless."

return len(authoridades), ", ".join(authoridades)

# Mantendo o minerador anterior agressivo
def minerador_agressivo_padrao(texto_bruto):
    texto = texto_bruto.lower().replace('\n', ' ')
    texto = re.sub(r'\s+', ' ', texto)
    texto = re.sub(r'\s+', ' ', texto)

    padroes_ancora = [
        r"(?:competec|cabe|compet[êe]ncia) [\s\w,]{0,150}?tribunal\s+de\s+justi[çc]a",
        r"tribunal\s+de\s+justi[çc]a[\s\w,]{0,150}?(?:processar|julgar|originariamente)"
    ]

    bloco_competencia = ""
    for padrao in padroes_ancora:
        matches = list(re.finditer(padrao, texto))
        for m in matches:
            inicio = m.start()
            fim = min(len(texto), m.end() + 5000)
            trecho = texto[inicio:fim]
            if any(termo in trecho for termo in ["comum", "responsabilidade",
"originariamente", "julgar", "processar"]):
                bloco_competencia += trecho + " | "

    if not bloco_competencia: return 0, ""

    dicionario_autoridades = {
        "Vice-Governador": r"vice[- ]?governador",
        "Secretários de Estado": r"secret[aa]rio[s]?s+(?:de\s+)?estado",
        "Deputados Estaduais": r"deputado[s]?s+(?:estadual|estaduais)",
        "Prefeitos": r"prefeito[s]?(?:\s+municipal)?",
        "Juizes Estaduais":
r"ju[ií]z(?:es)?s+(?:de\s+direito|estaduais|do\s+estado)",
        "Membros do MP": r"membro[s]?s+do\s+minist[eé]rio\s+p[uú]blico",
        "Procurador-Geral de Justiça": r"procurador[- ]?geral\s+de\s+justi[çc]a",
        "Procurador-Geral do Estado": r"procurador[- ]?geral\s+do\s+estado",
        "Defensor Público-Geral": r"defensor[- ]?p[uú]blico(?:[- ]?geral)?",
        "Comandante da PM": r"comandante[-
]?(?:geral\s+)?da\s+pol[ií]cia\s+militar",
        "Comandante dos Bombeiros": r"comandante[-
]?(?:geral\s+)?do\s+corpo\s+de\s+bombeiros",
        "Chefe da Polícia Civil": r"(?:chefe|delegado[- ]?geral|diretor[-
]?)?geral\s+da\s+pol[ií]cia\s+civil"
    }

    autoridades = []
    for nome, padrao in dicionario_autoridades.items():
        if re.search(padrao, bloco_competencia): autoridades.append(nome)

    return len(authoridades), ", ".join(authoridades)

# =====
# EXECUÇÃO DA PIPELINE DE RESGATE
# =====
print("1. Lendo PDFs e ativando Resgate 'Spaceless' para os Falsos
Negativos...\n")
pasta_colab = '.'

```

```

arquivos_pdf = [f for f in os.listdir(pasta_colab) if f.endswith('.pdf') and
'Constituicao_Estado_' in f]

resultados_finais = []

if arquivos_pdf:
    for arquivo in arquivos_pdf:
        uf_match = re.search(r'Constituicao_Estado_([A-Z]{2})\.pdf', arquivo)
        uf = uf_match.group(1) if uf_match else "Desconhecida"

        texto_pdf = extrair_texto_pdf(os.path.join(pasta_colab, arquivo))

        # 1. Tenta a via normal agressiva
        intensidade, lista = minerador_agressivo_padrao(texto_pdf)

        # 2. Se retornou 2 ou menos (sinal clássico de erro OCR), invoca o Modo
        Spaceless
        if intensidade <= 2:
            intensidade_sl, lista_sl = minerador_extremo_spaceless(texto_pdf)
            # Fica com o melhor resultado
            if intensidade_sl > intensidade:
                intensidade, lista = intensidade_sl, lista_sl + " (via
        Spaceless)"

        resultados_finais.append({
            'SG_UF': uf,
            'Intensidade_Foro_VD': intensidade,
            'Autoridades_Identificadas': lista
        })

    df_vd_definitiva =
pd.DataFrame(resultados_finais).sort_values('SG_UF').reset_index(drop=True)

    print("="*80)
    print("MINERAÇÃO FINALIZADA: Falsos Negativos Resgatados!")
    print("="*80)
    pd.set_option('display.max_colwidth', None)
    print(df_vd_definitiva)
else:
    print("Nenhum PDF encontrado.")

```

```

import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import scipy.stats as stats

# -----
# 1. BASE DE DADOS CONCRETOS (Mapeamento 2024)
# -----

dados = {
    'SG_UF': [
        'AC', 'AL', 'AM', 'AP', 'BA', 'CE', 'DF', 'ES', 'GO', 'MA',
        'MG', 'MS', 'MT', 'PA', 'PB', 'PE', 'PI', 'PR', 'RJ', 'RN',
        'RO', 'RR', 'RS', 'SC', 'SE', 'SP', 'TO'
    ],
    'VD_Intensidade_Foro': [
        8, 8, 12, 9, 12, 11, 3, 6, 11, 6,
        10, 7, 5, 12, 9, 10, 12, 9, 12, 9,
        12, 11, 10, 6, 8, 7, 4
    ],
    'VI1_Transparencia_EBT': [
        6.67, 8.95, 7.25, 5.99, 7.23, 9.05, 9.15, 9.00, 9.08, 7.74,
        7.36, 9.64, 8.87, 7.47, 7.52, 9.40, 8.70, 7.87, 7.14, 8.80,
        8.80, 6.55, 9.29, 9.09, 7.03, 8.78, 8.53
    ]
}

```

```

],
'VI2_Eficacia_CLP': [
    42.10, 55.40, 48.20, 38.50, 51.30, 62.10, 75.40, 78.20, 70.10, 45.60,
    68.90, 65.40, 60.20, 49.80, 58.70, 52.30, 46.50, 80.50, 50.10, 53.20,
    56.80, 35.40, 72.30, 85.10, 47.90, 88.40, 54.20
],
'VI3_Fragmentacao_NEP': [
    9.29, 3.18, 7.20, 12.52, 10.42, 8.50, 7.10, 8.20, 9.10, 10.50,
    9.80, 8.40, 9.50, 11.20, 8.90, 9.70, 8.10, 9.40, 14.20, 8.60,
    8.30, 10.10, 9.20, 8.70, 7.50, 11.10, 9.00
]
]
}

df = pd.DataFrame(dados)

# -----
# 2. ANÁLISE ESTATÍSTICA (Correlações de Pearson)
# -----
print("="*60)
print(" RESULTADOS ESTATÍSTICOS: CORRELAÇÕES DE PEARSON")
print("="*60)

variaveis_independentes = [
    ('VI1_Transparencia_EBT', 'Transparência (EBT)'),
    ('VI2_Eficacia_CLP', 'Eficácia da Máquina (CLP)'),
    ('VI3_Fragmentacao_NEP', 'Fragmentação Partidária (NEP)')
]

for col, nome in variaveis_independentes:
    r, p = stats.pearsonr(df[col], df['VD_Intensidade_Foro'])
    print(f"{nome}:")
    print(f"    -> Coeficiente (r): {r:.3f}")
    print(f"    -> P-valor (p): {p:.3f}\n")

# -----
# 3. GERAÇÃO DE GRÁFICOS DE DISPERSÃO
# -----
sns.set_theme(style="whitegrid")
fig, axes = plt.subplots(1, 3, figsize=(20, 6), sharey=True)

for i, (col, nome) in enumerate(variaveis_independentes):
    ax = axes[i]
    sns.regplot(x=col, y='VD_Intensidade_Foro', data=df, ax=ax,
                color='black', scatter_kws={'alpha':0.6},
                line_kws={'color':'red', 'lw':2})

    # Adicionando as siglas dos estados
    for j in range(df.shape[0]):
        ax.text(df[col][j], df['VD_Intensidade_Foro'][j] + 0.2,
                df['SG_UF'][j], fontsize=9, alpha=0.8, ha='center')

    ax.set_title(f'Correlação: {nome}', fontsize=14, fontweight='bold')
    ax.set_xlabel(nome, fontsize=12)
    ax.set_ylabel('Intensidade do Foro (VD)' if i == 0 else '', fontsize=12)

plt.tight_layout()
plt.savefig('correlacoes_foro.png', dpi=300)
print("> Gráfico de dispersão gerado e salvo como 'correlacoes_foro.png'.\n")
plt.show()

# -----
# 4. PREPARAÇÃO PARA csQCA (Calibração e Tabela Verdade)
# -----
print("="*60)
print(" RESULTADOS csQCA: CALIBRAÇÃO E TABELA VERDADE")
print("="*60)

```

```

# Calculando medianas como ponto de corte (threshold)
med_vd = df['VD_Intensidade_Foro'].median()
med_vi1 = df['VI1_Transparencia_EBT'].median()
med_vi2 = df['VI2_Eficacia_CLP'].median()
med_vi3 = df['VI3_Fragmentacao_NEP'].median()

# Dicotomizando as variáveis (Conjuntos Nítidos / Crisp-sets)
# 1 = Alta (Acima/Igual à mediana), 0 = Baixa (Abaixo da mediana)
df['QCA_Y_Alto_Foro'] = (df['VD_Intensidade_Foro'] >= med_vd).astype(int)
df['QCA_X1_Transparencia'] = (df['VI1_Transparencia_EBT'] >= med_vi1).astype(int)
df['QCA_X2_Eficacia'] = (df['VI2_Eficacia_CLP'] >= med_vi2).astype(int)
df['QCA_X3_Fragmentacao'] = (df['VI3_Fragmentacao_NEP'] >= med_vi3).astype(int)

# Gerando a Tabela Verdade (Agrupando configurações)
cols_qca = ['QCA_X1_Transparencia', 'QCA_X2_Eficacia', 'QCA_X3_Fragmentacao']
tabela_verdade = df.groupby(cols_qca).agg(
    Casos=('SG_UF', lambda x: ', '.join(x)),
    Num_Casos=('SG_UF', 'count'),
    Y_Consistencia=('QCA_Y_Alto_Foro', 'mean')
).reset_index()

# Definindo se a configuração resulta em Y=1 baseado na maioria empírica
(consistência > 0.5)
tabela_verdade['Resultado (Y)'] = (tabela_verdade['Y_Consistencia'] >
0.5).astype(int)

print(tabela_verdade.to_string(index=False))
print("\nNota: Configuração [0, 0, 1] compele a 'tempestade perfeita' apontada no
artigo.")
print("=="*60)

# -----
# 5. EXPORTAÇÃO DOS DADOS PARA CSV
# -----

nome_arquivo = 'dataset_completo_foro_privilegiado.csv'
df.to_csv(nome_arquivo, index=False, sep=';', encoding='utf-8-sig')
print(f"\n=> Dataset completo exportado com sucesso: '{nome_arquivo}'")

# Snippet para download no Google Colab
try:
    from google.colab import files
    files.download(nome_arquivo)
    files.download('correlacoes_foro.png')
    print("=> Iniciando download dos arquivos (CSV e PNG) via Colab...")
except ImportError:
    print("=> O download automático funciona apenas no ambiente Google Colab.")
    print("=> Os arquivos estão salvos na pasta local (diretório de trabalho).")

```

Declaration of the Use of Artificial Intelligence

In strict compliance with the open science, academic integrity, and transparency policies adopted by Pensar – Revista de Ciências Jurídicas, the author declares the conditions and scope of the use of intelligent computing tools in this study:

Tools and Technical Environment: The computational workflow was carried out in a Python environment (Google Colab), employing libraries specialized in Natural Language Processing (NLP) and textual data mining.

Application stage: The technology was used exclusively in data collection, screening, and primary extraction phase. The automated pipeline performed an exhaustive semantic scan of the raw files of the 26 State Constitutions (base year 2024), inspecting 5,000-character context windows built around legal anchor terms (such as “original jurisdiction,” “to prosecute and try,” and “Court of Justice”). This automation served to optimize scale gains and mitigate data loss in provisions constitutionally distant from the main text of the article.

Human oversight and validation: No stage of textual drafting, literature review, hypothesis formulation, or interpretation of the statistical and configurational (csQCA) models used generative AI tools. All output from the NLP algorithmic filter was subjected to full auditing and manual validation through legal hand-coding carried out by the author, with the automated procedure serving only as a search-optimization mechanism.

The author assumes full and exclusive scientific, technical, and legal responsibility for the accuracy, originality, and integrity of all content presented in the manuscript.

Declaration of Conflict of Interest

The author declares the total absence of any conflicts of interest, whether financial, commercial, institutional, political, or personal, that could have directly or indirectly influenced the neutrality of the research conduct, the integrity of data analysis, or the drafting of the manuscript submitted to Pensar – Revista de Ciências Jurídicas.

This investigation was carried out in a strictly independent manner, grounded in the scrutiny of primary constitutional texts and in public, freely accessible databases (EBT/CGU, CLP, and electoral data).

No public or private entity, nor any funding agency with specific interests in the institutional design of forum privilege, exercised any interference or deliberative role in the formulation of hypotheses, the methodological processing (NLP and csQCA), or the decision to submit this article for publication.