Revista

Cadernos de Finanças Públicas

03 | 2026

TESOURO NACIONAL

Evolution of Expenditures by Function of the Executive Branch of Paraná in Light of the Punctuated Equilibrium Theory

Juliana Andressa Pavão

ABSTRACT

This study analyzes the expenditure trends of the Executive Branch of Paraná (2019–2024) through the lens of Punctuated Equilibrium Theory (PET). Employing a mixed-methods approach, the research utilized data from the Transparency Portal to identify patterns of stability and disruption in budget allocation. The results confirm PET, as structural functions, such as Education, Health, and Public Security, maintained incremental stability due to constitutional mandates. In contrast, areas such as Administration and Labor exhibited abrupt shifts; notably, the Labor function saw an 859% increase in 2024, highlighting strategic post-pandemic reallocations. The study validates the theory and offers a diagnostic tool for assessing budgetary flexibility. By distinguishing resilient sectors from areas vulnerable to sudden cuts or increases, the study provides essential insights for public managers to improve strategic planning and transparency amidst crises and political changes.

Keywords: Public Expenditure; Expense by Function; Punctuated Equilibrium Theory.
JEL Classification: H61; H72; D72.

SUMMARY

1. INTRODUCTION

The public budget has established itself as the fundamental instrument of Brazilian public administration and serves as a reflection of the State's political priorities and social choices. Structured within the framework of the 1988 Federal Constitution through the integration of the Multi-Year Plan (PPA), the Budget Guidelines Law (LDO), and the Annual Budget Law (LOA), the budget system aims to harmonize medium-term planning with financial execution (Brazil, 1988). Within the Executive Branch, the allocation of resources by government functions reflects the implementation of public policies, and the efficiency and reliability of this process are fundamental to balancing public accounts and fulfilling the institutional mission (MCASP, 2025).

However, the period spanning 2019 to 2024 posed unprecedented challenges to budget management. This period was marked by disruptive events, notably the COVID-19 pandemic, fiscal crises, economic recovery processes, and electoral cycles. These factors acted as external shocks that strained the rigidity of budget planning, requiring rapid and often drastic reallocations. Studies indicate that crises of this magnitude tend to affect the effectiveness of budget execution and alter historical spending patterns, transforming the public budget into a basis for analyzing allocative discontinuities (Galvão, 2025; Silva, Nascimento & Silva, 2021).

From a theoretical perspective, the dynamics of these changes can be interpreted through the Theory of Punctuated Equilibrium (PET). Unlike the incrementalist view, PET—developed by Baumgartner and Jones (1991)—proposes that public policies alternate between long periods of institutional stability and brief moments of drastic change, known as "punctuations." These ruptures occur when new data or crises force decision-makers to reassess the policy landscape and seek new arenas for decision-making (Carvalho, 2017). In the budgetary context, PET allows us to determine whether variations in spending follow a linear trend or undergo ruptures caused by critical events (Silva, Nascimento & Silva, 2021).

Given this context, this study seeks to address the following research question: How can the evolution of expenditures by function of the Executive Branch of the State of Paraná between 2019 and 2024 be explained in light of the Theory of Discontinuous Equilibrium? The study aims to analyze the evolution of expenditures by function of the Executive Branch of the State of Paraná, for the period 2019–2024 ( ), in light of the Theory of Punctuated Equilibrium, identifying patterns of stability and disruptions in the allocation of public resources.

The relevance of this research is justified by its theoretical and practical contributions.

From a theoretical perspective, the application of the Punctuated Equilibrium Theory (PET) remains under-explored at the state level in Brazil, with most studies focusing on the federal or municipal levels; thus, this work contributes to the public finance literature by providing regional empirical evidence on spending behavior. From a practical standpoint, the study offers managers and oversight bodies an understanding of whether budgetary changes in Paraná stem from incremental adjustments or strategic shifts in response to crises. The analysis of the 2019–2024 period, given its wealth of social and economic events, allows for the identification of behavioral patterns that can guide the formulation and resilience of future public policies in scenarios of uncertainty.

2. LITERATURE REVIEW

2.1. The Brazilian Budget System

The public budget serves as the primary planning instrument for the financial implementation of public policies. Its structure is characterized as a negotiation process among various sectors to decide how public funds will be allocated in the execution of government policies (Carvalho, 2017).

The Brazilian budgetary model is structured around an integrated legal framework established by the 1988 Federal Constitution, which comprises three interdependent planning and management instruments. The Multi-Year Plan (PPA), provided for in Article 165 of the Constitution, serves as the medium-term guide, defining the guidelines, objectives, and targets of public administration for a four-year horizon (Brazil, 1988). In line with the PPA, the Budget Guidelines Law (LDO) establishes the targets and priorities for the subsequent fiscal year, guiding the preparation of the Annual Budget Law (LOA) and ensuring its alignment with the government's strategic planning. Finally, the LOA implements the system by estimating revenues and setting expenditures for the fiscal year, subdivided into the fiscal budget, the social security budget, and the investment budget for state-owned enterprises (Brazil, 1988).

Once an expenditure has been included in the public budget, the execution of public spending begins with financial planning. This stage, based on the Fiscal y Responsibility Law (LRF), establishes disbursement schedules and commitment limits to ensure the balance of public accounts (MCASP, 2025; Brazil, 2000). With regard to the procurement of goods and services, the administration must follow the competitive bidding procedure, a mechanism designed to ensure fairness, transparency, and the selection of the most advantageous proposal. Currently, this process is governed by Law No. 14,133/2021, which modernized the public procurement system in the country (Brazil, 2021).

Following the contracting phase, budget execution proceeds through the stages of commitment, settlement, and payment, as recommended by the Manual of Accounting Applied to the Public Sector (MCASP, 2025). Commitment refers to the act issued by a competent authority that creates a payment obligation for the State, consisting of the reservation of a specific budget allocation, which may be classified as ordinary, global, or estimated. Subsequently, settlement verifies the right acquired by the creditor upon proof of delivery of the contracted goods or services. The cycle concludes with payment, which consists of the actual transfer of funds to the creditor following the settlement of the expenditure (MCASP, 2025).

Finally, the organization of budgetary expenditures requires different classifications for control and management purposes, notably the institutional, functional, programmatic, and by-nature perspectives. Among these, the functional classification allows for the aggregation of expenditures into thematic areas of public activity (functions and subfunctions), regardless of the administrative structure, reflecting the agency's institutional mission and the goal-oriented public policies implemented by the government (MCASP, 2025). According to Carvalho (2017, p. 12), the functional classification is "[...] composed of a list of functions and subfunctions that serve to aggregate public expenditures by common area of government activity and is mandatory at all three levels of government, regardless of the programs."

The functional classification organizes the public sector's areas of activity, such as health and education, making it possible to identify the amount of resources allocated to each sectoral policy. While the function provides a broad overview of this financial effort, the subfunction details the specific nature of government action, as exemplified by areas such as early childhood education or outpatient care (Carvalho, 2017).

2.2. Punctuated Equilibrium Theory

Punctuated Equilibrium Theory (PET) has established itself as a model for understanding the dynamics of public policies over time. From a historical perspective, Baumgartner and Jones (1991) observe that public policies do not evolve in a purely linear fashion. On the contrary, they are characterized by extended periods of institutional stability, suddenly interrupted by brief episodes of change and reversal.

According to the founding authors, the alternation between stagnation and rapid change is explained by the interaction of two central elements: the policy image and the policy venues (Baumgartner & Jones, 1991). The policy image refers to the set of beliefs, values, and symbolic interpretations associated with an issue, while policy venues are the institutional spaces where decisions are made. In a pluralist system, subsystems that are highly favorable to certain interests can emerge and maintain the balance. However, when the image of a policy is redefined or when the debate shifts to new venues, the existing balance is disrupted (Baumgartner & Jones, 1991).

In this context, PET is grounded in a theoretical framework that links the role of political institutions with the psychology of information processing, specifically through the concept of bounded rationality. As Carvalho (2017) points out, the interaction between institutions at various levels and decision-makers with limited cognitive capacity generates patterns of behavior marked by inertia and sudden mobilization. Thus, equilibrium, or stability, is the result of certain structures' dominance in maintaining the status quo, while a "break" represents an effective change in public policy, driven by new data or perspectives that force policymakers to reassess their positions (Silva, Nascimento & Silva, 2021).

The analysis of budget execution reflects political priorities in the collection and allocation of resources. The PET makes it possible to explain whether budgetary processes follow an incremental logic of stability or whether they experience "earthquakes" (outliers), thereby enabling the analysis of budgetary policy in different contexts (Silva, Nascimento & Silva, 2021).

This theory offers an alternative for evaluating the historical behavior of public policies. Defining periods of disruption and identifying the reasons behind such variations allow us to understand the past, as well as to map patterns of behavior that can help predict future trends in public management (Carvalho, 2017).

2.3. Related Studies

The literature on public budget management has focused on understanding the dynamics between financial planning and execution, as well as the factors that determine stability or disruption in allocation decisions, according to the PET. In the Brazilian and international contexts, studies seek to identify whether the budget process follows an incrementalist pattern or is marked by discrete shifts—that is, changes resulting from external shocks or new political priorities (Silvestre & Araújo, 2015; Silva, Nascimento & Silva, 2021; Silvestre, Sá & Emmendoerfer, 2021). In this regard, the analysis of expenditure effectiveness and the alignment between revenues and expenditures serve as indicators of the quality of fiscal management and the reliability of budgetary instruments.

In the context of municipal budget execution, Peres (2008) conducted a comparative analysis in the Florianópolis Metropolitan Region (2003–2005), noting that parity between revenue and expenditure was the exception, occurring only in the municipality of Biguaçu. The study showed that the cancellation of regular appropriations was the predominant mechanism for opening additional appropriations, demonstrating the flexibility of the LOA. Additionally, Vieira (2017) assessed the reliability of planning in the largest municipalities of Ceará (2014–2016), finding low levels of budgetary credibility, with performance falling short of basic fiscal management standards.

In Brazil, Silvestre and Araújo (2015), in their analysis of municipalities in Ceará (2006–2010), confirmed that public investment alternates between long periods of stability and periods of profound change. The PET provides a theoretical framework for explaining these variations identified by Silvestre and Araújo (2015). Furthermore, Silva, Nascimento, and Silva (2021) applied the PET to the municipality of São Paulo (2002–2019), finding an incremental pattern in total revenue and expenditure, while spending by government functions (health, education, etc.) exhibited sporadic and atypical patterns.

Internationally, Fernández-i-Marín, Hurka, Knill, and Steinebach (2022) demonstrated, across 13 European countries, that economic crises induce incrementalist patterns in areas distant from the economic core—such as social and environmental policies—exerting significant redistributive effects.

Measuring efficiency and effectiveness through indicators was the focus of Silva's (2016) study, which developed the Government Functions Performance Index (IDFG), highlighting the efficiency of municipalities such as Santos (SP) and São Bernardo do Campo (SP) betwe , 2002, and 2014. In the Northeast, Fonseca (2021) observed effectiveness levels exceeding 80% in the Natal Metropolitan Region between 2017 and 2019, revealing a striking disparity between municipalities with high relative service delivery (Arês and São José de Mipibu) and those with low service delivery (São Gonçalo do Amarante).

The relationship between social demand and resource allocation was explored by Silvestre, Sá, and Emmendoerfer (2021). The authors found that citizens' priorities exert a direct influence on the budgetary allocation for essential services such as public safety, health, and education in Brazilian states (2013–2018). While these areas showed stability with occasional variations, the sanitation sector was characterized by marked instability, suggesting that social pressure and the nature of public policy shape the degree of resilience and change in the government budget.

Recently, Galvão (2025) analyzed the capitals of the Northeast (2020–2023) from the perspective of the Taxpayer/User Theory, revealing that the COVID-19 pandemic drastically affected the effectiveness of capitals such as Recife and João Pessoa in 2020, while Maceió and Aracaju maintained high execution rates, despite occasional accounting inconsistencies.

In short, the evidence indicates that budget execution in the entities mentioned above is not merely a technical reflection of financial availability, but the result of a complex process of incremental adjustments and strategic shifts. The recurring low levels of budgetary credibility and the varying degrees of effectiveness during periods of crisis underscore the need for performance monitoring and evaluation tools.

3. METHODOLOGY

This study is descriptive, documentary, qualitative, and quantitative in nature. It is an applied research study, as it seeks to generate knowledge aimed at understanding the dynamics of public expenditures in the State of Paraná and to contribute to the analysis of public policies from the perspective of the Theory of Punctuated Equilibrium. It is classified as descriptive research because it aims to analyze the behavior of expenditures by government function from 2019 to 2024, identifying patterns of stability and disruptions in resource allocation.

The study is of a mixed-methods nature. The quantitative method was used to measure and compare public expenditures in absolute, relative, and percentage terms, following monetar l adjustment using the IPCA. The qualitative method was employed in the critical interpretation of these results, relating them to political, social, and economic events and contexts that may have caused incremental changes or disruptions in resource allocation.

A documentary study was conducted, based on secondary data obtained from the State of Paraná's Transparency Portal. To ensure comparability over time, monetary values were adjusted using the Broad Consumer Price Index (IPCA), with 2024 as the base year, in order to eliminate the effect of inflation and enable analysis in real terms.

The data used in the study were collected from the State of Paraná's Transparency Portal, covering the period from 2019 to 2024. Information regarding the Executive Branch's settled expenditures was extracted, classified by government function, covering all functions provided for in the budget structure. For analysis purposes, functions that did not have any settled expenditures throughout the entire period were excluded, namely: science and technology, agriculture, agrarian organization, transportation, and social security.

During the data processing and analysis phase, the data were organized into spreadsheets, enabling the creation of tables. The analysis was conducted from the perspective of the Theory of Punctuated Equilibrium, seeking to identify patterns of incremental stability and possible abrupt disruptions in resource allocation. To this end, functions that exhibited significant fluctuations at specific points in time were examined, linking these variations to political, economic, or social factors that occurred during the period.

4. PRESENTATION OF RESULTS

This section presents and discusses the data obtained from the study. Table 1 shows the evolution of settled expenditures by function for the period between 2019 and 2024. It should be noted that the figures were adjusted for inflation using the IPCA.

Table 1 - Evolution of Expenditures by Function (2019–2024)

Function	2019	2020	2021	2022	2023	2024
03	279.069.602	282.953.048	266.486.524	300.944.721	338.775.250	560.328.690
04	1.094.713.622	416.269.277	449.255.686	579.371.656	756.826.140	2.186.292.100
06	4.430.151.580	4.379.314.582	4.111.147.854	4.878.350.214	5.661.939.085	6.474.728.627
08	211.997.949	174.258.114	183.113.171	306.936.170	323.089.849	417.050.798
10	6.452.630.419	7.010.238.315	6.444.395.412	6.394.484.101	7.592.872.628	8.473.070.749
11	20.674.017	6.342.183	6.636.217	6.804.996	5.673.473	54.425.565
12	13.103.279.755	10.327.373.448	9.476.722.012	10.469.333.706	11.924.588.278	16.217.862.151
13	95.177.907	125.645.104	181.987.628	109.534.947	111.290.776	217.187.665
14	231.069.898	35.171.919	38.057.001	39.166.469	48.180.776	330.035.994
15	224.876.599	580.646.455	424.762.521	677.962.451	467.502.158	684.206.971
16	52.670.216	183.585.146	685.897.118	202.455.086	371.333.536	365.294.414
18	201.343.841	296.436.634	316.866.777	616.239.912	1.371.232.873	528.318.468
22	18.392.063	17.545.152	12.732.231	12.158.558	14.309.869	11.737.415
23	36.972.306	27.681.398	23.770.578	25.344.190	37.551.402	116.446.330
24	38.345.502	96.501.458	107.168.882	61.047.338	49.512.059	106.187.768
27	31.199.158	34.743.020	42.353.565	47.322.752	67.863.259	99.038.539
28	16.970.799.993	4.184.605.324	6.243.779.142	4.888.867.741	7.172.156.968	5.069.793.808
99	0	0	0	0	0	0
Total	45.594.798.108	28.262.672.880	29.111.024.690	29.733.111.339	36.464.493.674	46.212.225.155

Legend: 3 – Essential to justice; 4 – Administration; 6 – Public Safety; 8 – Social Assistance; 10 – Health; 11 – Labor; 12 – Education; 13 – Culture; 14 – Citizens' Rights; 15 – Urban

Planning; 16 – Housing; 18 – Environmental Management; 22 – Industry; 23 – Commerce and Services; 24 – Communications; 27 – Sports and Recreation; 28 – Special Expenses; and 99 – Contingency Reserve.

Source: survey data, 2025.

Table 1 shows that spending on Health (10) and Education (12) remained stable over the years. Spending on Health totaled 7 billion in 2020, the year the COVID-19 pandemic began, and decreased in the following two years before rising again in 2023 and 2024. Expenditures for the Education sector, on the other hand, showed slight variations, reaching a peak of 16 billion in 2024. This stability in investments in Health and Education may be due to the requirement to allocate at least 12% of tax revenue to Health and at least 25% to Education, as stipulated in the 1988 Federal Constitution, Articles 198 and 212, respectively (Brazil, 1988).

Among the functions that showed the greatest fluctuations in settled expenditure amounts during the analysis period, the following stand out: Administration (4), Special Charges (28), Urban Planning (15), and Housing (16). The Administration function recorded its lowest expenditure in 2020 at 416 million reais, in contrast to 2024, which saw the highest investment of 2.18 billion. This abrupt variation may indicate changes in management or fiscal policy. The Special Expenditures function, meanwhile, is marked by a decline from 16 billion in 2019 to 4 billion in 2020. The Urban Planning function showed growth followed by a decline in every year of the analysis. Furthermore, the Housing function rose from 52 million in 2019 to 685 million in 2021.

According to the Theory of Pointed Equilibrium, as shown in Table 1, there are prolonged equilibria in the Health and Education functions—which are essential and high-priority functions— , reflecting continuity in public policies. However, abrupt shifts are evident in the Administration, Special Charges, Urban Planning, and Housing functions, which may indicate moments of disruption in the pattern of resource allocation.

Table 2 presents the percentage changes in expenditure fluctuations by function for each year of the analyzed period.

Table 2 - Annual Percentage Change by Function (%)

Functions	2020/2019	2021/2020	2022/2021	2023/2022	2024/2023
03 - ESSENTIAL TO JUSTICE	1,39	-5,82	12,93	12,57	65,40
04 - ADMINISTRATION	-61,97	7,92	28,96	30,63	188,88
06 - PUBLIC SAFETY	-1,15	-6,12	18,66	16,06	14,36

08 - SOCIAL ASSISTANCE	-17,80	5,08	67,62	5,26	29,08
10 - HEALTH	8,64	-8,07	-0,77	18,74	11,59
11 - LABOR	-69,32	4,64	2,54	-16,63	859,30
12 - EDUCATION	-21,18	-8,24	10,47	13,90	36,00
13 - CULTURE	32,01	44,84	-39,81	1,60	95,15
14 - CITIZENSHIP RIGHTS	-84,78	8,20	2,92	23,02	585,00
15 - URBAN PLANNING	158,21	-26,85	59,61	-31,04	46,35
16 - HOUSING	248,56	273,61	-70,48	83,42	-1,63
18 - ENVIRONMENTAL MANAGEMENT	47,23	6,89	94,48	122,52	-61,47
22 - INDUSTRY	-4,60	-27,43	-4,51	17,69	-17,98
23 - TRADE AND SERVICES	-25,13	-14,13	6,62	48,17	210,10
24 - COMMUNICATIONS	151,66	11,05	-43,04	-18,90	114,47
27 - SPORTS AND RECREATION	11,36	21,91	11,73	43,41	45,94
28 - SPECIAL CHARGES	-75,34	49,21	-21,70	46,70	-29,31

Source: survey data, 2025.

Table 2 shows sharp fluctuations that constitute breaks according to the Theory of Punctured Equilibrium. The most notable disruptions occurred in the functions of Labor, with an 859.30% increase in 2024; Citizenship Rights, with a 585.00% increase in 2024; and Housing, with increases of 248.56% in 2020 and 273.61% in 2021. The Environmental Management function also warrants attention due to its significant growth in 2022 (94.48%) and 2023 (122.52%), followed by a decline in 2024 (-61.47). Furthermore, the Administration function showed a significant decline in 2020 (-61.97%), followed by growth of 188.88% in 2024.

In contrast, as shown in Table 2, some functions exhibit moderate variations, suggesting a pattern of incremental budgeting. This is the case for the Public Safety function, which showed variations ranging from -6.12% to 18.66% during the analyzed period. Other functions characterized by stability include: the Health function, with variations ranging from -8.07% to 18.74%, and the Education function, which showed variations ranging from -21.18% to 36.00%. These findings suggest that the Public Safety, Health, and Education sectors are characterized by continuity in public policy, as they are central areas of government activity that undergo more gradual and consistent changes to ensure the maintenance of services for the population.

In short, an analysis of Table 2 shows that, while some functions of the Executive Branch of the State of Paraná follow a pattern of stability, others exhibit sudden changes that indicate shifts in priorities and responses to specific situations. For example, the period between 2019 and 2021 was marked by negative fluctuations, possibly related to the COVID-19 pandemic. In contrast, the year 2024 is marked by significant growth in various functions such as Labor, Citizenship Rights, Commerce and Services, and Administration, among others. This finding may suggest budget reallocations following the pandemic period.

Table 3, below, shows the percentage share of each function relative to total budget expenditures to complement the analyses in Table 2 and to understand the share of each public expenditure by function. Based on this, it is possible to identify patterns of stability and disruption in the composition of the public budget, in accordance with the Theory of Punctuated Equilibrium.

Table 3 - Relative share (%) of each function in total expenditures

Functions	2019	2020	2021	2022	2023	2024
03 - ESSENTIAL TO JUSTICE	0,61%	1,00%	0,92%	1,01%	0,93%	1,21%
04 - ADMINISTRATION	2,40%	1,47%	1,54%	1,95%	2,08%	4,73%
06 - PUBLIC SAFETY	9,72%	15,50%	14,12%	16,41%	15,53%	14,01%
08 - SOCIAL ASSISTANCE	0,46%	0,62%	0,63%	1,03%	0,89%	0,90%
10 - HEALTH	14,15%	24,80%	22,14%	21,51%	20,82%	18,34%
11 - LABOR	0,05%	0,02%	0,02%	0,02%	0,02%	0,12%
12 - EDUCATION	28,74%	36,54%	32,55%	35,21%	32,70%	35,09%
13 - CULTURE	0,21%	0,44%	0,63%	0,37%	0,31%	0,47%
14 - CIVIC RIGHTS	0,51%	0,12%	0,13%	0,13%	0,13%	0,71%
15 - URBAN PLANNING	0,49%	2,05%	1,46%	2,28%	1,28%	1,48%
16 - HOUSING	0,12%	0,65%	2,36%	0,68%	1,02%	0,79%
18 - ENVIRONMENTAL MANAGEMENT	0,44%	1,05%	1,09%	2,07%	3,76%	1,14%
22 - INDUSTRY	0,04%	0,06%	0,04%	0,04%	0,04%	0,03%
23 - TRADE AND SERVICES	0,08%	0,10%	0,08%	0,09%	0,10%	0,25%
24 - COMMUNICATIONS	0,08%	0,34%	0,37%	0,21%	0,14%	0,23%
27 - SPORTS AND RECREATION	0,07%	0,12%	0,15%	0,16%	0,19%	0,21%
28 - SPECIAL CHARGES	37,22%	14,81%	21,45%	16,44%	19,67%	10,97%
99 - CONTINGENCY RESERVE	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%

Source: survey data, 2025.

Table 3 shows that, during the period analyzed, the main functions comprising the public budget of the Executive Branch of the State of Paraná are Education, Health, Special Expenses, and Public Safety, accounting, on average, for 33.47%, 20.29%, 20.09%, and 14.21% of the total, respectively.

The Education function appears as the top priority in every year of the analysis, ranging from 28.74% in 2019 to 35.09% in 2024. Although there are slight variations in the budget composition, the relative stability of this function is evident. In second place is the Health function, which has the second-largest share of the budget. It can be observed that during the pandemic period, the Health sector had a larger share of the public budget, representing 24.80% in 2020, 22.14% in 2021, and 21.51% in 2022. It is worth noting that this share decreased in subsequent years, reaching 18.34% in 2024.

In contrast, the sectors with the smallest shares of the budget are Labor and Industry, each accounting for an average of 4% of the budget. The Industry sector remained stable over the years. However, the Labor sector experienced a sharp decline in 2024, accounting for 12% of the budget.

Some one-time fluctuations occurred in the Housing function, which accounted for 2.36% of the budget in 2021. The Environmental Management function, meanwhile, had a higher share of the budget in 2023 at 3.76%. Furthermore, the Administration function saw an increase in its share in 2024, reaching 4.73%.

Based on the data shown in Table 3, it is evident that, despite the stability of core functions such as Education, Health, and Public Safety, certain functions—such as Housing, Environmental Management, and Administration—have undergone shifts in priority. This finding is consistent with the Theory of Punctuated Equilibrium, in which long periods of stability are interrupted by moments of abrupt change that redefine the relative weight of certain areas in the public budget.

An analysis of expenditures by function of the Executive Branch of the State of Paraná between 2019 and 2024 reveals patterns consistent with the PET. This finding corroborates the work of Silva, Nascimento, and Silva (2021) in the municipality of São Paulo, where total expenditure remained stable, while spending on specific functions exhibited punctuated and atypical patterns. According to the PET, proposed by Baumgartner and Jones (1991), public policies and resource allocation tend to remain stable over long periods, interspersed with abrupt and one-off changes, known as "spikes."

During the period analyzed, functions such as Education, Health, and Public Safety exhibited a pattern of stability, both in absolute terms and as a relative share of the budget. This consistency is driven by constitutional mandates and legal commitments, aligning with the findings of Silvestre, Sá, and Emmendoerfer (2021), who identified high stability in these same areas within state governments. This phenomenon suggests that structural functions are less susceptible to immediate political fluctuations, functioning as protected subsystems. This resilience was observed even in the face of the health crisis, which is consistent with the findings of Galvão (2025) and Fonseca (2021), since although the pandemic impacted execution rates in percentage terms, the priorities of social functions tended to maintain their centrality in the budget.

In contrast, functions such as Administration, Special Assignments, Urban Planning, Housing, Labor, and Citizenship Rights exhibit abrupt fluctuations, indicating disruptions in the budgetary pattern. These findings confirm the premise put forward by Silvestre and Araújo (2015) regarding the occurrence of major budgetary changes following periods of stability. The unstable behavior of these secondary functions can be explained by Fernández-i-Marín et al. (2022), who note that subsystems distant from the immediate economic agenda suffer more intense redistributive effects, resulting in particularly extreme changes when shifts occur. These results confirm the PET, according to which periods of stability can be disrupted by political changes, economic crises, or strategic decisions that significantly reallocate resources.

The 859.3% increase in the Labor function in 2024 suggests a shift in government priorities, possibly in response to post-pandemic economic recovery policies. Similarly, significant increases in Housing and Environmental Management may reflect specific government decisions, which aligns with Peres's (2008) study by demonstrating that the budget is a flexible instrument, frequently altered by additional appropriations and cancellations of regular appropriations.

An analysis of budgetary variations reveals a hierarchy of priorities in which core functions, such as Health and Education, follow incremental and predictable trajectories. In contrast, secondary areas such as Labor and Environmental Management exhibit greater vulnerability to abrupt changes, a characteristic of the typical patterns of allocative dynamics.

5. FINAL CONSIDERATIONS

The objective of this study was to analyze the evolution of expenditures by function of the Executive Branch of the State of Paraná between 2019 and 2024, from the perspective of the Punctuated Equilibrium Theory (PET). The research sought to determine whether the allocation of public resources during the period followed a trajectory of incremental stability or was marked by abrupt disruptions, considering the disruptive context of the COVID-19 pandemic and the subsequent dynamics of economic and fiscal recovery in the state.

The main findings reveal that the structural functions—namely Health, Education, and Public Safety—maintained a pattern of stability and incremental behavior throughout the analyzed period. The consistency of these areas as pillars of Paraná's budget, with Education standing as the top priority, is explained by constitutional spending requirements and the essential nature of these services. In accordance with the PET, these functions operate as protected subsystems, where social consensus and legal constraints ensure the maintenance of the current status quo and the continuity of public policies, even in the face of severe external shocks.

In contrast, significant fluctuations were identified in less-restricted functions, such as Administration, Housing, Environmental Management, and Labor. The most evident case was that of the Labor function, which showed exponential growth of 859.30% in fiscal year 2024, suggesting a deliberate shift to accommodate new post-pandemic priorities. Other sharp fluctuations, such as the budgetary jumps in Housing (2020–2021) and the volatility in Special Levies, confirm the theoretical premise that budgetary balance is often disrupted by periods of drastic change, during which the government sharply reallocates resources to respond to crises or new political agendas.

The theoretical implications of this study lie in strengthening the Theory of Punctuated Equilibrium as a model for explaining public budgets in Brazil, demonstrating that stability and disruption coexist in state-level allocation dynamics. From a practical standpoint, the study offers managers and oversight agencies a diagnostic tool for assessing budgetary flexibility. By highlighting which areas are most vulnerable to sudden cuts or increases, the research aids in the planning of more resilient public policies and promotes transparency regarding how the state responds to scenarios of fiscal uncertainty.

Despite these contributions, the study has limitations, such as a time frame restricted to six years and an exclusive focus on quantitative data on settled expenditures from a single state, which limits the generalizability of the results. Furthermore, the study did not explore the qualitative causes underlying the scores in 2024. For future studies, we suggest conducting comparative analyses among the states of the Southern region and thoroughly investigating the political and economic determinants that led to the atypical growth of the Labor and Administration functions toward the end of the analyzed period.

BIBLIOGRAPHICAL REFERENCES

BAUMGARTNER, F. R.; JONES, B. D. Agenda dynamics and policy subsystems. **The Journal of Politics**, [s. l.], v. 53, n. 4, p. 1044-1074, 1991.

BRASIL. **Constituição da República Federativa do Brasil de 1988**. Brasília, DF: Presidência da República, 1988. Disponível em: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Acesso em: 9 jul. 2026.

BRASIL. **Lei nº 14.133, de 1º de abril de 2021**. Estabelece normas gerais de licitação e contratação para a administração pública. Brasília, DF: Presidência da República, 2021. Disponível em: https://www.planalto.gov.br/ccivil_03/_ato2019-2022/2021/lei/l14133.htm. Acesso em: 9 jul. 2026.

CARVALHO, D. I. de. **Análise da execução orçamentária do Distrito Federal entre 2000 e 2015, sob a perspectiva da Teoria do Equilíbrio Pontuado**. 2017. Dissertação (Mestrado) – Universidade de Brasília, Brasília, 2017.

FERNÁNDEZ-I-MARÍN, X. et al. Systemic dynamics of policy change: overcoming some blind spots of punctuated equilibrium theory. **Policy Studies Journal**, [s. l.], v. 50, n. 3, p. 527-552, 2022.

FONSECA, M. P. de A. **Análise da eficácia da despesa orçamentária dos municípios da região metropolitana de Natal - RN (2017-2019)**. 2021. Monografia (Graduação) – Universidade Federal do Rio Grande do Norte, Natal, 2021.

GALVÃO, I. B. A. **Eficácia da despesa orçamentária (2020/2023) das capitais nordestinas com o suporte da teoria do contribuinte/usuário dos recursos públicos**. 2025. Monografia (Graduação) – Universidade Federal do Rio Grande do Norte, Natal, 2025.

PERES, G. **Despesas e receitas orçadas versus as realizadas: um estudo de caso nos municípios da região metropolitana de Florianópolis**. 2008. Trabalho de Conclusão de Curso (Graduação) – Universidade Federal de Santa Catarina, Florianópolis, 2008.

SECRETARIA DO TESOURO NACIONAL. **Manual de contabilidade aplicada ao setor público**. 11. ed. Brasília, DF: Ministério da Fazenda, 2025. Disponível em: https://www.gov.br/tesouronacional/pt-br/servicos/informacoes-contabeis-e-fiscais/contabilidade-aplicada-ao-setor-publico. Acesso em: 9 jul. 2026.

SILVA, M. C. da. **Avaliação de desempenho de governos municipais brasileiros na execução orçamentária da despesa por funções de governo**. 2016. Tese (Doutorado) – Universidade Federal do Rio Grande do Norte, Natal, 2016.

SILVA, M. C. da; OLIVEIRA, E. J. de. Ensaio teórico sobre a teoria do equilíbrio pontuado. **Cuadernos de Educación y Desarrollo**, [s. l.], v. 16, n. 3, e3691, 2024.

SILVA, M. C. da; NASCIMENTO, J. C. H. B. do; SILVA, J. D. G. da. Análise da execução orçamentária do Governo Federal Brasileiro em saúde e educação, 2000-2018, sob a ótica da Teoria do Equilíbrio Pontuado. **Cuadernos de Contabilidad**, [s. l.], v. 23, n. 23, p. 4, 2022.

SILVA, M. C. da; NASCIMENTO, J. C. H. B. do; SILVA, J. D. G. da. Teoria do Equilíbrio Pontuado: uma análise da execução orçamentária no Estado do Rio de Janeiro (2002-2018). **Revista Facultad de Ciencias Económicas: Investigación y Reflexión**, [s. l.], v. 28, n. 1, p. 27-46, 2020.

SILVA, M. C. da; NASCIMENTO, J. C. H. B. do; SILVA, J. D. G. da. Análises da execução orçamentária do município de São Paulo (2002–2019) sob a ótica da teoria do equilíbrio pontuado. **Revista Científica Hermes**, [s. l.], v. 29, p. 74–95, 2021.

SILVESTRE, H. C.; ARAÚJO, J. F. F. E. de. Teoria do Equilíbrio Pontuado nas Políticas Públicas Brasileiras: o caso do Ceará. **RAC**, [s. l.], v. 19, n. 6, p. 696-711, 2015. Disponível em: http://dx.doi.org/10.1590/1982-7849rac20151721. Acesso em: 9 jul. 2026.

SILVESTRE, H. M. C.; SÁ, G. J. G. de; EMMENDOERFER, M. L. Distribuição orçamentária de governos estaduais no Brasil com base na percepção do cidadão: uma análise a luz da Teoria do Equilíbrio Pontuado. **Revista Contemporânea de Contabilidade**, Florianópolis, v. 18, n.

48, p. 126-142, 2021. Disponível em: https://doi.org/10.5007/2175-8069.2021.e76318. Acesso em: 9 jul. 2026.

VIEIRA, K. F. **Credibilidade orçamentária: avaliação dos dez maiores municípios em PIB do Estado do Ceará**. 2017. Trabalho de Conclusão de Curso (Graduação) – Universidade Federal do Ceará, Fortaleza, 2017.