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# The perception of the quality of public services by the population in municipalities with a low Human Development Index

## *A percepção da qualidade dos serviços públicos por parte da população em municípios de baixo Índice de Desenvolvimento Humano*

## *La percepción de la calidad de los servicios públicos por parte de la población en municipios con bajo Índice de Desarrollo Humano*

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**KEYWORDS**
Public Policies. Public Services. Human Development Index.

**Abstract:** The impact of public services on the quality of life of a population is fundamental to the development of a nation, directly influencing the well-being and satisfaction of citizens. However, for public services to effectively meet the needs of the population, it is crucial that citizens play an active and participatory role in the formulation of public policies. This study aimed to analyze the perception of the quality of public services by the population in municipalities with a low Municipal Human Development Index (MHDI) in the Zona da Mata region of Pernambuco. The research, which used a quantitative approach, used closed questionnaires applied to a sample of 445 individuals. The results revealed that the perception of the quality of public services varies according to sociodemographic variables, such as income, education and gender. In addition, essential services such as transportation, security and public transparency were the worst evaluated by the survey participants. Understanding the perception of citizens is essential for improving public policies, allowing the adaptation of services to the specific needs of each socioeconomic group. The importance of this research lies in its ability to provide specific insights for the formulation of more inclusive and effective policies, which aim to improve the quality of life in low-income municipalities and contribute to the sustainable development of these regions.

***PALAVRAS-CHAVE***
*Políticas Públicas. Serviços Públicos. Índice de Desenvolvimento Humano.*

***Resumo:*** *O impacto dos serviços públicos na qualidade de vida de uma população é fundamental para o desenvolvimento de uma nação, influenciando diretamente o bem-estar e a satisfação dos cidadãos. No entanto, para que os serviços públicos atendam de maneira eficaz às necessidades da população, é crucial que os cidadãos desempenhem um papel ativo e participativo na formulação de políticas públicas. Este estudo teve como objetivo analisar a percepção da qualidade dos serviços públicos por parte da população em municípios de baixo Índice de Desenvolvimento Humano Municipal (IDHM) na Zona da Mata pernambucana. A pesquisa, de abordagem quantitativa, utilizou questionários fechados aplicados a uma amostra de 445 indivíduos. Os resultados revelaram que a percepção da qualidade dos serviços públicos varia de acordo com as variáveis sociodemográficas, como renda, escolaridade e sexo. Além disso, serviços essenciais como transporte, segurança e transparência pública foram os mais mal avaliados pelos participantes da pesquisa. Compreender a percepção dos munícipes é fundamental para o aprimoramento das políticas públicas, permitindo a adaptação dos serviços às necessidades específicas de cada grupo socioeconômico. A importância desta pesquisa reside em sua capacidade de fornecer visões específicas para a formulação de políticas mais inclusivas e eficazes, que visem melhorar a qualidade de vida em municípios de baixa renda e contribuir para o desenvolvimento sustentável dessas regiões.*

***PALABRAS CLAVE***
*Políticas Públicas. Servicios Públicos. Índice de Desarrollo Humano.*

***Resumen:*** *El impacto de los servicios públicos en la calidad de vida de una población es fundamental para el desarrollo de una nación, influyendo directamente en el bienestar y la satisfacción de los ciudadanos. Sin embargo, para que los servicios públicos satisfagan eficazmente las necesidades de la población, es crucial que los ciudadanos desempeñen un papel activo y participativo en la formulación de políticas públicas. Este estudio tuvo como objetivo analizar la percepción sobre la calidad de los servicios públicos de la población en municipios con bajo Índice de Desarrollo Humano Municipal (IDHM) de la Zona da Mata de Pernambuco. La investigación, con enfoque cuantitativo, utilizó cuestionarios cerrados aplicados a una muestra de 445 individuos. Los resultados revelaron que la percepción sobre la calidad de los servicios públicos varía según variables sociodemográficas, como ingreso, educación y género. Además, los servicios esenciales como el transporte, la seguridad y la transparencia pública fueron los peor calificados por los participantes de la encuesta. Comprender la percepción de los ciudadanos es fundamental para mejorar las políticas públicas, permitiendo adaptar los servicios a las necesidades específicas de cada grupo socioeconómico. La importancia de esta investigación radica en su capacidad de brindar visiones específicas para la formulación de políticas más inclusivas y efectivas, que tengan como objetivo mejorar la calidad de vida en municipios de bajos ingresos y contribuir al desarrollo sostenible de estas regiones.*

## Introduction

In democratic systems, the way government operates is closely linked to the needs of the population. Legislators and public policy implementers must always keep these needs in mind when legislating and designing public policies that result in public services. The aim of the entire chain of actions that leads to public services should be the improvement of people's lives. To achieve this, both technicians and politicians must focus on effective ways of transforming resources into services that benefit the population (Goodin, Rein & Moran, 2006; Rua, 2014).

However, many factors can contribute to the failure in the formulation of public policies, since public managers operate in a social and economic context that requires increasingly rapid decision-making on a wide range of actions. To support effective solutions in a short time frame, indicators are often created in a simplified and highly objective manner to measure increasingly complex activities (Cabral & Leindorf, 2021).

Public services provided by the Federal Government, States, and Municipalities must comply with the same principles. However, the quality of public services varies depending on the responsible public management, region, and population. The importance attributed to public services will also differ according to the number of users and the extent to which they depend on such services (Cristóvam, Saikali & Sousa, 2020).

In Brazil, the Municipal Human Development Index (IDHM) is an adaptation of the Human Development Index (HDI), developed by the United Nations Development Programme (UNDP). The HDI is a widely used global indicator that aims to objectively measure human development according to different classification levels (developed, developing, and underdeveloped), based on data related to longevity, education, and income. The Brazilian IDHM adjusts the UN HDI methodology for application at the municipal level, maintaining the same three dimensions: longevity, education, and income (Barbosa, 2017; Moreira & Del Bianco, 2019).

In municipalities where longevity, education, and income indicators are low, the population tends to rely more heavily on public services in various sectors, as they lack access to services provided by private entities. The importance and necessity of these services are fundamental to the population's quality of life and well-being. Therefore, public services in cities with low IDHM may have a greater impact on the population's quality of life than in municipalities with high IDHM. In Brazil, of the 1,000 municipalities with the lowest IDHM, 80.3% are concentrated in a single region: the Northeast (Moreira & Del Bianco, 2019; Silva et al., 2020).

The state of Pernambuco has 72 of its 185 municipalities among the 1,000 municipalities with the lowest Municipal Human Development Index (IDHM) in Brazil, ranking 19th among the 26 Brazilian states in terms of human development. Economically, Pernambuco holds the tenth-largest GDP in Brazil and the second-largest in the Northeast region. Among the state's five geographic regions, the Zona da Mata Pernambucana experienced the highest growth in percentage points in its share of the state's GDP, while the metropolitan region showed a decline between 2010 and 2018. However, in terms of IDHM, the Zona da Mata region recorded an index of 0.597, classified as low human development (Condepe/Fidem, 2019; IBGE, 2020; Pessoa, 2017).

Therefore, due to its economic importance compared to other regions in Pernambuco, its low IDHM, and the accessibility of its municipalities, the Zona da Mata of Pernambuco was chosen as the geographic focus of this study, which aimed to analyze the population's perception of the quality of public services in municipalities with low IDHM.

Conducting a descriptive analysis of public services in low-IDHM municipalities in Pernambuco is of great practical importance, as these services play a vital role in promoting basic rights and improving the population's quality of life. In areas with low human development, residents are often more dependent on public services to meet fundamental needs such as health, education, transportation, and security. Assessing the quality and accessibility of these services helps identify shortcomings and areas needing improvement, contributing to the strengthening of

local public management.

## Theoretical Framework

This section discusses the main authors and definitions used in the development of this study's research topic.

*Public Policies and Public Services*

In governments with a management model based on centralized power, rulers decide what the population needs regardless of data consultation or inclusive decision-making policies. However, in more complex and democratically participative societies, government action must be based on improving the quality of life for various population segments simultaneously. This is because the more diverse a community is, the more challenging it becomes for public policies to positively impact a larger portion of the population (Cepiku & Mastrodascio, 2021).

The challenge in formulating and analyzing public policies begins with understanding what constitutes a policy, as it often has an imprecise definition and is commonly used in a vague and abstract manner, especially by those responsible for its design and implementation. A policy may indicate a general objective, when it has a well-defined purpose, such as an initiative to improve a population's education level—or a guiding principle—such as a government committed to fighting corruption (Lapuente & Van De Walle, 2020; Silva et al., 2023).

Public policies can be considered as intentions, actions, or a combination of both. They may be understood as mere intentions when a government formulates proposals that are never implemented. Public policies can also be defined as interventions carried out by public administration aimed at promoting the well-being of the population. Lastly, they may represent a lack of action, when a government or representative intentionally chooses not to act toward a specific goal (Ferlie & Ongaro, 2022).

With the strategic planning of public policies guiding the budgetary allocation of resources and defining government actions, the remaining levels will assist in organizing and implementing investments. The procedural framework that public policies must follow can provide direction and security for more efficient and effective strategic planning. However, it can also act as a limiting factor when public policies are not developed in an integrated manner. De Toni (2014) highlights the high level of generality in strategic planning and the absence of a hierarchy of priorities as disabling factors for the effectiveness of planning.

As a multidisciplinary field, the study of public policies can adopt different perspectives and bring contrasting views on government actions. Consequently, public policies can be defined as the representation of all actions, objectives, and positions of governments on specific issues; the actions and measures they take, or fail to take, to implement them; and the explanations and ideological stance adopted by public management as guiding principles for decision-making (Allison, 2006; De Toni, 2014; Farazmand, 2023; Ferlie & Ongaro, 2022; Rua, 2014).

*Public Services in Brazilian Public Administration*

The conceptual development of democratic public service delivery involves inclusive reforms that treat the population as consumers, clients, and policy makers. However, since public administration in Brazil is divided into three levels of government (federal, state, and municipal), the way citizens participate in the formulation and consumption of public services varies. Although all levels of government interact directly with the population, it is the municipal administration that is on the front lines of providing basic services (Reck & Hübner, 2021).

According to Article 175 of the 1988 Federal Constitution (Brazil, 1988), public services in Brazil are the responsibility of the public administration at all three levels of government. These services may be provided directly or indirectly, through delegation to private organizations. However, the public administration

retains ownership and accountability for the quality and impact of the services delivered (Lopez, Dias & Nebot, 2020).

In Brazil, public policies aimed at meeting the basic needs of the population are classified as essential public services, as they are indispensable for human survival. Law No. 7,783/1989 defines public services provided in the areas of health, security, transportation, and basic sanitation as essential. This set of services is fundamental for improving the population's quality of life and must be made available to all citizens (Kon, 2019).

Within the Brazilian legislative framework, Hely Meirelles (2006, p. 329) defines public service as "any service provided by the Administration or its delegates, under state regulations and oversight, to meet the essential or secondary needs of the community, or the mere conveniences of the State.". Although the federal government, states, and municipalities all provide public services across various categories, the 1988 Federal Constitution assigns certain responsibilities exclusively to specific levels of public administration. The Constitution distributes the responsibility for public service provision based on the predominant interest in the subject matter. Therefore, when the matter is of national interest, it falls under the jurisdiction of the federal government. In contrast, when it involves regional or local interests, the Constitution assigns responsibility to state and municipal governments, respectively (Farazmand, 2023; Kon, 2019).

According to this criterion, if the nature of a service is predominantly general, it is under federal responsibility. If the predominant interest is regional, the responsibility lies with the states. If the interest is primarily local, then the responsibility is assigned to the municipalities (Barroso, 2017; Silva *et al*., 2023).

The importance of knowing which level of government is responsible for providing a service lies in the accountability for its impacts and the measurement of user satisfaction using appropriate indicators. However, public services related to health, education, the environment, and basic sanitation are often provided jointly or through subsidies and funding mechanisms, which can make the provision and responsibility for these services indistinct to the population (Cortes, 2011).

As a means of implementing public policies, public services provided directly by a government entity or through intergovernmental partnerships allow for the development of planning and execution strategies aimed at improving people's lives. Therefore, public services can reflect a set of governmental actions aimed at meeting the essential needs of the population (Kon, 2019; Rua, 2014).

Beginning in the 1990s, managerial reform in Brazilian public administration sought to adopt a business-oriented ideology regarding the quality of public service delivery. From the perspective of managerial reform, the citizen is seen as a client of public services, and the State is expected to use public resources to satisfy the needs of its taxpayer population (Lopez, Dias & Nebot, 2020).

However, this managerial approach has faced criticism for framing the population as clients. Such a view distorts the democratic purpose of public administration, which is to provide services even to citizens who may not be able to contribute financially through taxes. Public services are designed and implemented for everyone, regardless of their social or economic status (Cepiku & Mastrodascio, 2021; Denhardt & Denhardt, 2015).

The new model of public service delivery places the population at the center of policy formulation and public services, allowing citizens to participate in the development, execution, and oversight of services provided by all three levels of government. This type of management can be defined as essentially democratic and focused on the well-being of the population (Osborne, 2018).

## Methodological Elements of the Research

There is no single method to be followed or considered the best when conducting a research study. According to Gil (2008), the method must be consistent with the research problem and the objectives defined by the researcher. This section describes the methodology and its classification

according to its application. Regarding its objective, this study has a descriptive character and uses a quantitative approach, as it analyzes in detail the evaluations of public services in municipalities of the Zona da Mata region in Pernambuco (Oliveira, 2011).

The concept of population and research subjects can be defined as a group of people who share characteristics relevant to the study (Aaker, Kumar & Day, 2004). The research universe includes the municipalities with low IDHM in the Zona da Mata region, which has shown the highest economic growth and the second highest social development in the state of Pernambuco (Condepe/Fidem, 2019). The Zona da Mata comprises 43 municipalities, with an estimated population of 1,140,969 people and an average urbanization rate of 65%. The region's economy is primarily based on sugarcane agroindustry and tourism, contributing to around 10% of Pernambuco's GDP. The region's average IDHM is 0.597, placing many of its municipalities in the "low human development" category (Condepe/Fidem, 2019).

The choice of this region is justified by the classification of most of its municipalities as having low IDHM, which makes public services essential for the population, as they heavily depend on them due to the lack of private service alternatives. Thus, the intensive use of public services makes the evaluation of their quality particularly relevant.

Due to the population's reliance on public services and their greater familiarity with them, individuals aged 18 and older living in the urban areas of the municipalities were selected as participants. This criterion allows for a sample composed of people who potentially have greater access to and more options for public service delivery. To reach respondents, the streets that make up the central district of each municipality were identified, focusing specifically on the urban population. These streets were obtained from the Brazilian Postal Service (Correios) websites and verified through the local municipal Administration Secretariats. Each street was numbered based on the total number of registered streets, and interviewers used a random selection app to choose the first 10 streets to be visited in each municipality, totaling 110 streets.

In each selected street, another random draw was conducted to choose the households. Researchers applied the questionnaire to at least five residents in five different houses per street. In households with more than one eligible respondent, another draw was conducted to determine who would answer.

Table 1
**Municipalities Participating in the Sample**

| Municipality | Population | Urbanization Rate (%) | Population of the Municipal Urban zone | IDHM | National Ranking |
|---|---|---|---|---|---|
| Maraial | 13.940 | 56,44 | 6.454 | 0,534 | 5366 |
| Quipapa | 22.202 | 49,11 | 9.706 | 0,552 | 5169 |
| Xexéu | 13.597 | 57,76 | 7.853 | 0,552 | 5169 |
| Água Preta | 35.344 | 51,15 | 13.002 | 0,553 | 5157 |
| Primavera | 11.470 | 57,92 | 6.643 | 0,580 | 4638 |
| Barreiros | 39.151 | 79,29 | 30.908 | 0,586 | 4670 |
| Itaquitinga | 14.950 | 72,11 | 10.780 | 0,586 | 4495 |
| Tamandaré | 17.056 | 67,65 | 10.835 | 0,593 | 4309 |
| Buenos Aires | 12.016 | 53,4 | 6.416 | 0,593 | 4309 |
| Sirinhaém | 33.079 | 41,03 | 9.674 | 0,597 | 4215 |
| Pombos | 23.343 | 59,88 | 12.801 | 0,598 | 4198 |
| TOTAL | 236.148 | | 125.072 | | |

**Source**: IBGE (2021).

The research universe included citizens residing in urban areas, totaling 125,072 people. The selection of 445 individuals as the sample for this study was based on statistical criteria that ensure the representativeness of the population in municipalities with low Municipal Human Development Index (IDHM) in the Zona da Mata region of Pernambuco.

Considering the total urban population of the analyzed municipalities, 125,072 inhabitants, a margin of error of 4.6% was established, with a 95% confidence interval. These parameters are appropriate for perception studies on quality, where it is essential to ensure that the results accurately reflect public opinion (Maia et al., 2024). In addition, a 50% coefficient of variation was used for the main variable of the study, which represents the perception of public services, this being the most conservative scenario to ensure the

robustness of the collected data.

The sample size was calculated based on the simple random sampling formula for finite populations, taking into account the total population of the selected municipalities. This method ensures that the sample is large enough to provide reliable results, minimizing the potential for bias. The number of 445 individuals was considered the minimum necessary to achieve the desired level of precision, ensuring that the variations in responses would be representative of the different sociodemographic characteristics of the population, such as income, education, and gender (Hair et al., 2014).

The final sample included only individuals aged 18 or older, residing in urban areas, who have greater contact with and dependence on public services, thereby increasing the relevance of the responses obtained. Due to the coronavirus pandemic, biosafety protocols were followed, and researcher contact was limited to what was essential for administering the questionnaires, in accordance with the regulations in effect from September 2021 to March 2022.

*Data Collection Instrument*

The public services listed in the questionnaire are under the responsibility of Brazil's three distinct levels of government: federal, state, and municipal. The evaluative questions were derived from the bibliometric research and the theoretical framework constructed for this study and aimed to analyze the typical services found in the urban zones of the municipalities, as shown in Table 2:

Table 2
**Evaluative questions**

| **Health Services** |
|---|
| How do you rate the number of health clinics in your city? |
| How do you rate the number of doctors available? |
| How do you rate the quality of medical care? |
| How do you rate the scheduling time for appointments and exams? |
| How do you rate the availability of medical exams that can be performed in the municipalities? |
| How do you rate your level of satisfaction with public health services in your city? |
| **Education Services** |
| How do you rate the number of schools available in your municipality? |
| How do you rate the condition of school facilities in your municipality? |
| How do you rate the availability of school transportation in the municipality? |
| How do you rate the number of teachers in the municipality's schools? |
| How do you rate the functioning of schools during distance learning? |
| How do you rate the offering of income-generating courses and programs by the city government? |
| How do you rate your level of satisfaction with public education services in your city? |
| **Electricity Supply, Street Cleaning, and Sewage Collection in Your City** |
| How do you rate the water supply to your home? |
| How do you rate the cleanliness of streets and public squares in your municipality? |
| How do you rate the sewage collection at your residence? |
| How do you rate the electricity supply? |
| How do you rate street paving in the municipality? |
| How do you rate your level of satisfaction with housing and infrastructure in your city? |
| **Public Transportation Service in Your City** |
| How do you rate the ease of using municipal public transportation? |
| How do you rate the comfort and maintenance of the buses? |
| How do you rate the waiting time for public transportation? |
| How do you rate the punctuality of public transportation? |
| How do you rate your level of satisfaction with the public transportation service in your city? |
| **Traffic Organization in Your City** |
| How do you rate the condition of roads and streets in your municipality? |
| How do you rate the performance of agents responsible for traffic organization in the municipality? |
| How do you rate the number of pedestrian crossings and road signage? |
| How do you rate your level of satisfaction with traffic organization services in your city? |
| **Cultural Events Promoted by the City Government** |
| How do you rate the promotion of local music events by the municipality? |
| How do you rate the fairs and events held by the municipality throughout the year? |
| How do you rate your level of satisfaction with the cultural events offered in your city? |
| **Sports Opportunities in the City** |
| How do you rate the number and condition of public parks in the municipality? |
| How do you rate the organization of sports activities in the municipality? |

| |
|---|
| How do you rate the city's support for sporting events? |
| How do you rate your level of satisfaction with the availability of public spaces for sports and recreation in your city? |
| **Public Transparency** |
| How do you rate the ease of attending city council meetings? |
| How do you rate the performance of the municipality's ombudsman sector? |
| How do you rate the organization of events to develop the public budget? |
| How do you rate your level of satisfaction with access to and popular participation in the municipality? |
| **Public Safety** |
| How do you rate the service provided at the local police station? |
| How safe do you feel when walking around the city? |
| How do you rate the response time of the police force? |
| How do you rate the infrastructure of the police in your municipality? |
| How do you rate the number of police officers in your municipality? |
| How do you rate your level of satisfaction with public safety in your city? |
| **Waste Collection, Debris Removal, or Recycling Services** |
| How do you rate the reach of garbage collection in the municipality? |
| How do you rate the frequency of garbage collection? |
| How do you rate the removal of debris by the municipality? |
| How do you rate the selective waste collection in the municipality? |
| How do you rate the construction and renovation of public spaces by the municipality? |
| How do you rate your level of satisfaction with public cleaning and waste collection in your municipality? |

For each question, respondents were instructed to assign a score from 0 to 10, based on their perception of the service provided.

*Methods of Analysis Used*

To analyze the data collected, both descriptive and inferential statistical methods were employed, with the goal of identifying patterns between sociodemographic variables and the evaluation of public services in the municipalities studied.

Descriptive analysis was used to present the sample's characteristics. The calculation of frequencies and averages was the primary tool used to assess the level of satisfaction with public services provided by the municipalities. These data provided an overview of respondent profiles and facilitated the interpretation of subsequent results.

## Presentation and Discussion of Results

In this section, the collected data will be presented and analyzed descriptively. Descriptive sociodemographic data of the sample and analysis:

The sociodemographic variables collected in the survey were: gender, age, municipality of residence, level of education, marital status, and income. Among the 445 cases collected, respondents participated proportionally in the sampling process.

The average Municipal Human Development Index (IDHM) of the participating municipalities was 0.575, with all municipalities falling into the low human development category. The municipalities of Buenos Aires, Itaquitinga, and Quipapá are located in the northern part of the Zona da Mata of Pernambuco, while the others are in the southern part of the region.

The sociodemographic distribution of the sample across the municipalities also showed balance in terms of gender. Of the respondents, 52% (n = 233) were female and 48% (n = 212) were male.

According to data from the Continuous PNAD survey by IBGE (2019), the Brazilian population consisted of 48.2% men and 51.8% women. Therefore, the gender distribution in the sample aligns with the general distribution of the Brazilian population.

In addition to gender, the municipalities showed similar characteristics regarding age group. The average age of the respondents was 39 years. Most municipalities had an average age ranging from a lower limit of 37 years (Sirinhaém and Primavera) to an upper limit of 41 years (Pombos and Quipapá). Table 3 presents the frequency distribution of the respondents' ages in the sample.

As shown in Table 3, half of the sample (52%) consists of individuals between 18 and 37 years old. This percentage is balanced between the 18–27 age group (25%) and the 28–37 age group (27%). Respondents aged between 38 and 47 accounted for

22%, while those aged 48–57 and 58–67 represented 11% and 12% of the sample, respectively. The median age of respondents was 36 years.

Table 3
**Age Frequency of the Survey Respondents**

| Age | Frequency | Relative Frequency | Cumulative Frequency | Cumulative Relative Frequency |
|---|---|---|---|---|
| 18-27 | 112 | 25% | 112 | 25% |
| 28-37 | 118 | 27% | 230 | 52% |
| 38-47 | 99 | 22% | 329 | 74% |
| 48-57 | 47 | 11% | 376 | 84% |
| 58-67 | 54 | 12% | 430 | 97% |
| 68-77 | 14 | 3% | 444 | 100% |
| 78-87 | 1 | 0% | 445 | 100% |
| **Total** | **445** | | | |

**Source**: Research´s data (2022)

According to IBGE data (2019), the average age of the Brazilian population was 32.6 years. Therefore, the average age of the sample in this study is 8.4 years higher than the national average. In terms of education, 30 respondents (6.8%) reported having completed elementary school, 20 (4.5%) had not completed high school, 223 (50%) had completed high school, 82 (18.4%) had incomplete higher education, 80 (17.8%) had completed higher education, and 10 (2.2%) reported having a postgraduate degree.

The sample data are consistent with figures from the National Household Sample Survey (PNAD, 2019), which indicated that in 2019, approximately 8% of Brazilians over the age of 25 had completed elementary education, 4% had not completed high school, 28% had completed high school, and 17% had completed higher education.

Regarding the "gender" variable, there was a balance across all levels of education. Among those with completed elementary education, 3% were men and 4% were women. For those with incomplete high school education, both genders represented 2% each. Among those with completed high school, 24% were men and 26% were women; and for incomplete higher education, 9% were men and 10% were women. This slight predominance of women in most education levels reverses at the higher levels of education. Among those who had completed higher education, 10% were men and 8% were women; and among those with postgraduate degrees, only two of the ten respondents were women.

*Public Service Evaluation*

For the analysis of public service evaluations, all 445 valid responses were used; missing data were excluded. When analyzing results by municipality, Table 4 shows that the municipality of Água Preta had the highest average rating for health services, with a score of 7.22, while Sirinhaém had the lowest average among the municipalities in the sample, with a score of 4.74. For better organization of the information, the variables were renamed according to the order in the questionnaire, using the abbreviations: ASS 1, ASS 2, ASS 3, ASS 4, ASS 5, and ASS 6.

Table 4
**Health Variables by Municipality**

| Cities | IDHM | Mean ASS 1 | Mean ASS 2 | Mean ASS 3 | Mean ASS 4 | Mean ASS 5 | Mean ASS 6 | Overall Mean |
|---|---|---|---|---|---|---|---|---|
| Buenos Aires | 0,593 | 6,30 | 4,80 | 6,00 | 4,30 | 4,65 | 5,15 | 5,20 |
| Itaquitinga | 0,586 | 5,74 | 5,09 | 5,88 | 3,77 | 3,77 | 5,16 | 4,90 |
| Sirinhaém | 0,597 | 5,62 | 4,56 | 5,26 | 4,08 | 4,10 | 4,85 | 4,74 |
| Pombos | 0,598 | 6,06 | 5,00 | 6,12 | 5,18 | 5,27 | 5,61 | 5,54 |
| Maraial | 0,534 | 6,30 | 5,33 | 5,58 | 5,33 | 5,23 | 5,43 | 5,53 |
| Quipapá | 0,552 | 6,21 | 5,83 | 6,48 | 5,55 | 5,74 | 6,19 | 6,00 |
| Tamandaré | 0,593 | 5,60 | 5,30 | 6,03 | 5,10 | 5,10 | 5,85 | 5,50 |
| Barreiros | 0,586 | 6,63 | 6,23 | 6,5 | 5,48 | 5,55 | 6,03 | 6,07 |
| Primavera | 0,580 | 6,88 | 5,90 | 6,36 | 5,33 | 5,26 | 6,00 | 5,96 |
| Água Preta | 0,553 | 7,70 | 7,65 | 7,88 | 6,28 | 6,50 | 7,30 | 7,22 |
| Xexéu | 0,552 | 7,07 | 6,02 | 6,57 | 5,91 | 6,04 | 6,24 | 6,31 |
| **Overall** | **0,574** | **6,39** | **5,63** | **6,25** | **5,12** | **5,21** | **5,81** | **5,73** |

**Source**: Research´s data (2022)

The deviation range between the highest and lowest evaluations is 2.48—a significant difference, as a score above 7 may indicate approval and high satisfaction with the service provided, whereas a score of 4.74 may suggest dissatisfaction and disapproval of the service. Based on an analysis of the indicators, it is not

possible to establish any direct relationship with the Human Development Index, as various factors, such as proximity to major health centers, may influence better evaluations.

For education-related services, the overall arithmetic mean of the evaluations in the sample was **5.77**. To enable a more detailed analysis, the variables were renamed and simplified in order as follows: ASE 1, ASE 2, ASE 3, ASE 4, ASE 5, ASE 6, and ASE 7.

The municipalities of Água Preta and Xexéu obtained the highest overall means and evaluation scores for public education services, as shown in Table 5.

Table 5
**Average Education Variable Scores by Municipality**

| Municipalities | Mean ASE 1 | Mean ASE 2 | Mean ASE 3 | Mean ASE 4 | Mean ASE 5 | Mean ASE 6 | Mean ASE 7 | Overall Mean |
|---|---|---|---|---|---|---|---|---|
| Buenos Aires | 6,35 | 5,40 | 4,65 | 5,90 | 4,43 | 3,88 | 5,05 | 5,09 |
| Itaquitinga | 6,09 | 5,65 | 5,88 | 6,37 | 5,00 | 4,23 | 5,12 | 5,48 |
| Sirinhaém | 5,85 | 5,56 | 4,69 | 5,69 | 4,64 | 4,74 | 5,33 | 5,22 |
| Pombos | 6,48 | 5,88 | 5,42 | 6,21 | 5,48 | 4,64 | 5,52 | 5,66 |
| Maraial | 6,10 | 5,33 | 5,50 | 5,88 | 4,40 | 4,98 | 5,70 | 5,41 |
| Quipapá | 6,69 | 6,05 | 5,74 | 6,48 | 4,86 | 4,38 | 6,21 | 5,77 |
| Tamandaré | 6,00 | 5,45 | 5,20 | 5,85 | 5,00 | 4,38 | 5,88 | 5,39 |
| Barreiros | 6,80 | 5,65 | 6,10 | 6,78 | 4,55 | 4,08 | 5,93 | 5,70 |
| Primavera | 7,12 | 6,00 | 6,12 | 6,43 | 5,07 | 4,55 | 6,00 | 5,90 |
| Água Preta | 7,63 | 7,28 | 7,43 | 7,43 | 6,53 | 6,68 | 7,45 | 7,20 |
| Xexéu | 7,09 | 6,41 | 6,67 | 7,13 | 5,72 | 6,37 | 6,39 | 6,54 |
| **Overall** | **6,57** | **5,89** | **5,79** | **6,39** | **5,06** | **4,82** | **5,88** | **5,77** |

**Source**: Research´s data (2022)

As observed in the average evaluations of health services, the averages for Água Preta were also high for the education construct variables, indicating that despite the objective IDHM indicator, residents' perception of education services in the city is quite positive.

The perception of participants in the sample, based on their level of education, showed the highest evaluations, as presented in Table 6.

Among respondents who reported having completed elementary education, the average rating was 6.80, with an overall mean of 6.68. The averages for those with incomplete and complete high school education were 6.16 and 5.73, respectively. Positive perceptions of education services decreased as the level of education increased, particularly among respondents with incomplete or completed higher education.

Table 6
**Evaluation of Education Services by Level of Education**

| Level of Education | Mean ASE 1 | Mean ASE 2 | Mean ASE 3 | Mean ASE 4 | Mean ASE 5 | Mean ASE 6 | Mean ASE 7 | Overall Mean |
|---|---|---|---|---|---|---|---|---|
| Completed Elementary Education | 7,30 | 6,67 | 6,57 | 7,23 | 5,87 | 6,30 | 6,80 | 6,68 |
| Incomplete High School Education | 6,80 | 6,05 | 6,55 | 6,30 | 5,35 | 6,00 | 6,05 | 6,16 |
| Completed High School Education | 6,45 | 5,84 | 5,74 | 6,39 | 5,05 | 4,71 | 5,90 | 5,73 |
| Incomplete Higher Education | 6,37 | 5,62 | 5,32 | 6,28 | 4,90 | 4,60 | 5,49 | 5,51 |
| Completed Higher Education | 6,65 | 5,78 | 5,89 | 6,06 | 4,75 | 4,66 | 5,75 | 5,65 |
| **Overall** | **6,71** | **5,99** | **6,01** | **6,45** | **5,18** | **5,25** | **5,99** | **5,94** |

**Source**: Research´s data (2022)

The same sample behavior was observed in the relationship between income and the evaluation of education services. The average scores for education services were 6.03 and 5.89 for respondents who reported earning up to 1 minimum wage and between 1 and 2 minimum wages, respectively. Meanwhile, for income brackets between 2 and 3 minimum wages and above 3 minimum wages, the averages were 5.25 and 5.07, respectively.

The next set of variables aimed to assess housing and infrastructure conditions in the municipalities. To facilitate the evaluation, the variables were renamed in order as follows: ASMI 1, ASMI 2, ASMI 3, ASMI 4, ASMI 5, and ASMI 6. The overall average score for housing and infrastructure services was 6, with little variation among the municipalities. The municipalities with the highest overall scores and ratings (ASMI 6) were Maraial and Quipapá, with Maraial reaching an average of 6.35, while Sirinhaém recorded the lowest average of 5.60—indicating that perceptions among residents across the sampled cities were relatively uniform.

Across all other relationships between sociodemographic variables and evaluations of housing and infrastructure services, the results showed balance and no significant discrepancies.

For the evaluation of public transportation

services, the variables were ordered and renamed according to the questionnaire as follows: AST 1, AST 2, AST 3, AST 4, and AST 5.

The evaluations showed wide variation. Água Preta received the highest scores and overall average, while at the opposite end, Buenos Aires had the lowest evaluation, with a specific rating of 3.58 and an overall average of 3.82. The overall mean for public transportation service evaluation across the full sample was 4.91, making it one of the lowest-rated services by residents.

The traffic organization service in the municipalities was evaluated through four variables, renamed for simplification and listed in the order of appearance in the questionnaire: ASOT, ASOT 2, ASOT 3, and ASOT 4.

For this service, the overall average score from the entire sample was 5.11, and the specific average score for satisfaction with traffic organization (ASOT 4) was 5.16. The municipality with the lowest evaluation for traffic organization was Barreiros, with a satisfaction score of 4.23 and an overall average of 4.65. In contrast, the best-rated municipality was Água Preta, with an overall average of 5.93.

The evaluation of cultural event services yielded the highest ratings among all public services, with an overall average of 6.05. The variables used to measure this indicator were: ASOC 1, ASOC 2, and ASOC 3, according to the questionnaire order.

The municipality of Xexéu received the highest individual score (ASOC 3), 7.37, and the highest overall average of the variables, 7.46. Meanwhile, the municipality with the lowest scores and average was Itaquitinga, with an overall average of 5.05.

The next evaluated service was the provision of sports and leisure areas. For the analysis of these variables, the following representative abbreviations were also used: ASOEL 1, ASOEL 2, ASOEL 3, and ASOEL 4.

For this service, the overall average rating of the sample was 5.88. The municipality with the highest evaluation score for variable ASOEL 4 was Xexéu, with a score of 7.02 and an overall average of 7.09 for the related variables. The municipality of Itaquitinga received the lowest evaluations, with an overall average of 4.80 and an ASOEL 4 score of 4.67.

Among the evaluations of public services related to the provision of sports and leisure areas, analysis by age group showed that respondents aged 62 and older gave the lowest scores, with an average of 4.5 for this group. In contrast, the highest average rating was from the 18 to 28 age group, with a mean of 6.75, which may suggest that the structure and services are more oriented toward younger residents.

Public transparency and citizen participation in public administration were also assessed using the variables: ASTP 1, ASTP 2, ASTP 3, and ASTP 4.

The overall arithmetic mean for the sample was 4.79. With the exception of Água Preta and Xexéu, all municipalities had an average score below 5 for these variables, indicating a negative perception among residents regarding transparency and popular participation.

Across all variables, aspects such as ease of attending city council sessions, the role of the ombudsman, and the organization of events to promote citizen participation received low average scores. The population does not perceive a sense of transparency or openness to participate in public management.

According to Osborne (2018), the challenges of public administration are constantly evolving. An active public participation is what the author describes as truly democratic governance, which can only be achieved when people from all segments of society engage in the formulation, budgeting, execution, and oversight of public services.

To turn this goal into reality, municipalities and public entities must, as Frey and Stutzer (2016) described, build channels for participatory and impactful governance. When the population takes part in solving urban problems, they become co-authors of the quality of public services provided.

When analyzing the responses by respondents' level of education, it was possible to observe that

the highest ratings came from the three lowest education groups: individuals with completed elementary education, incomplete high school, and completed high school education had an average overall rating of 5.3. Meanwhile, the lowest ratings were found among those with higher education levels (incomplete higher education, completed higher education, and postgraduate degrees), with an average of 4.6.

The next evaluation focused on variables related to public safety services. The variables were labeled as follows: ASSEG 1, ASSEG 2, ASSEG 3, ASSEG 4, ASSEG 5, and ASSEG 6.

The overall average for public safety services was 4.54, considered a low score. According to Table 16, the evaluations by municipality can be observed.

Based on the ratings given by respondents, the municipality of Pombos had the lowest score in the satisfaction variable for public safety (ASSEG 6), with a score of 4.09. However, when analyzing the overall average of all safety-related variables, the municipality of Itaquitinga presented the lowest ratings, with a general average of 4.17, while Pombos had an average of 4.46.

The evaluations from male and female respondents did not show significant differences, nor did those based on income or age. However, according to education level, the scores were lower for respondents with higher levels of education. For those with basic education, the overall average across the six variables was 4.91; for those with completed high school, it was 4.64; and for those with completed higher education and postgraduate degrees, the perception of public safety services dropped to 4.15.

The last service evaluated in the survey was waste collection and cleaning in the respondents' residential areas. The variables analyzed were: ASL 1, ASL 2, ASL 3, ASL 4, ASL 5, and ASL 6.

The overall average across the six variables was 5.77, with little variation in the scores. The municipality with the highest average was Água Preta, with 6.20, and the lowest was Barreiros, with 5.35. Thus, the upper and lower limits of residents' evaluations did not vary significantly from the overall mean of 5.77. Cross-referencing with sociodemographic variables, age, gender, income, and education level, revealed no significant variations that would affect the contextual analysis of the municipalities.

Therefore, the evaluation of all the simple arithmetic means for the variables that make up each construct is illustrated in Table 7. The overall arithmetic mean for all public services provided directly or indirectly by the three levels of government was 5.44.

Table 7
**Evaluation of Public Services**

| Construct | Mean |
|---|---|
| Housing and Infrastructure | 6,02 |
| Cultural Events | 6,04 |
| Sports and Leisure | 5,86 |
| Education | 5,76 |
| Waste Collection and Cleaning | 5,72 |
| Health | 5,72 |
| Traffic Organization | 5,10 |
| Public Transportation | 4,89 |
| Transparency and Participation | 4,79 |
| Public Safety | 4,54 |

**Source**: Research´s data (2022)

The municipality of Água Preta had the highest average rating among all municipalities, with a simple arithmetic mean across all areas of 6.45, while Buenos Aires had the lowest score, 4.89. When analyzing the evaluations by service area, as shown in Table 7, it is possible to rank the services based on the highest average scores.

## Final Considerations

A new approach to public policy formulation, one that results in higher-quality public services, takes citizens into account during the stages of planning, development, implementation, and oversight. The perception of the citizen as a mere client of public services has evolved into a vision that sees the population as co-managers of the services they finance and benefit from.

This model of public administration is referred

to as democratic governance within the framework of the New Public Service, in which the role of the service provider is redefined based on the impact the service has on people's lives. Administrative efficiency is no longer the sole priority; rather, the focus shifts to how much the services contribute to the well-being of society.

In the low-IDHM municipalities studied, only two of the ten constructs representing the main public services provided by local governments received evaluation scores above 6 on a scale from 0 to 10. Essential services such as public transportation, transparency, and public safety received scores below 5, indicating public dissatisfaction with the services provided.

A population's quality of life can only be achieved through the provision of high-quality public services. For this to occur, public administration cannot be disconnected from the people it is meant to serve. Therefore, those who rely on these services must have an active voice in shaping the public policies that result in service delivery.

This study aimed to demonstrate the population's perception of the quality of public services in low-IDHM municipalities and sought to contribute to the understanding of how public policies impact the daily lives of urban citizens in areas outside major metropolitan regions. To broaden this understanding, it is necessary to expand the research scope to include municipalities with high IDHM and the rural population served by specific public services.

Although this study provided valuable insights into perceptions of public service quality in low-IDHM municipalities in the Zona da Mata region of Pernambuco, it is important to acknowledge its limitations. One of the main limitations relates to the geographic scope of the sample, which was restricted to municipalities in a single region. This limits the generalizability of the findings to other areas of Brazil, which may have different economic, cultural, and social characteristics. In addition, the study used closed-ended questionnaires, which may have limited the depth of responses and the ability to capture more subjective or contextual perceptions regarding the quality of public services.

For future studies, it is recommended to expand the geographic scope of the research to include other regions with different socioeconomic profiles and HDI levels. It is also suggested to employ qualitative methods, such as in-depth interviews or focus groups, to enrich the understanding of citizens' perceptions of public services.

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