

Equity and Cash Transfers

in Brazil, Colombia, and Mexico

Brazil Case Study

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List of acronyms and abbreviations

BPC	Benefício de Prestação Continuada	Continuous Benefit Payment
CadÚnico	Cadastro Único para Programas Sociais	Unified Registry for Social Programs
Caixa	Caixa Econômica Federal	Federal Savings Bank
CCT	Transferência Condicionada de Renda	Conditional Cash Transfer
CRAS	Centro de Referência de Assistência Social	Social Assistance Reference Center
CREAS	Centro de Referência Especializado de Assistência Social	Specialized Social Assistance Reference Center
Centros POP	Centros de Referência Especializados para População em Situação de Rua	Specialized Reference Centers for the Homeless Population
DNP	Departamento Nacional de Planeación (Colômbia)	National Planning Department
IBGE	Instituto Brasileiro de Geografia e Estatística	Brazilian Institute of Geography and Statistics
IGD	Índice de Gestão Descentralizada	Decentralized Management Index
INSS	Instituto Nacional do Seguro Social	National Institute of Social Security
LOA	Lei Orçamentária Anual	Annual Budget Law
LOAS	Lei Orgânica da Assistência Social	Organic Law of Social Assistance
MDS	Ministério do Desenvolvimento e Assistência Social, Família e Combate à Fome	Ministry of Development and Social Assistance, Family and Fight Against Hunger
NIS	Número de Identificação Social	Social Identification Number
PBF	Programa Bolsa Família	Bolsa Família Program

PNADC	Pesquisa Nacional por Amostra de Domicílios Contínua	Continuous National Household Sample Survey
PNAE	Programa Nacional de Alimentação Escolar	National School Feeding Program
PPP	Paridade do Poder de Compra	Purchasing Power Parity
SENARC	Secretaria Nacional de Renda de Cidadania	National Secretariat for Citizenship Income
SIMEC	Sistema Integrado de Monitoramento, Execução e Controle	Integrated Monitoring, Execution, and Control System
SISVAN	Sistema de Vigilância Alimentar e Nutricional	Food and Nutritional Surveillance System
SUAS	Sistema Único de Assistência Social	Unified Social Assistance System
TSEE	Tarifa Social de Energia Elétrica	Electricity Tariff Subsidy
USD	Dólar dos Estados Unidos	United States Dollar

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1. Executive Summary

1.1 Context of the research

Conditional Cash Transfer (CCT) programs have been integral to social protection systems in Latin America, aiming to reduce poverty through income support combined with complying with conditions related to education and health. While these programs have positively impacted poverty reduction and inequality, persistent exclusion errors – where eligible individuals or households fail to receive benefits— remain a challenge, especially affecting groups facing heightened vulnerability.

The “*Equity and Cash Transfers in Brazil, Colombia, and Mexico*” project analyzes these exclusion errors across CCT programs in the three countries. Its goal is to understand how targeting systems and implementation processes can unintentionally exclude eligible populations, especially those experiencing overlapping disadvantages. The project also aims to identify actionable strategies to improve equitable access to CCT programs.

This case study focuses on Brazil’s Bolsa Família Program (*Programa Bolsa Família* or PBF), one of the most influential CCT programs globally, established in 2003. It underwent restructuring in 2021 under the name *Auxílio Brasil* before reverting to the PBF brand in 2023. Despite its international recognition for targeting efficiency and its positive social outcomes, the program continues to face challenges of persistent exclusion, particularly as Brazil confronts structural inequalities, territorial disparities, and evolving socioeconomic vulnerabilities. Addressing the exclusion errors within PBF remains crucial for advancing equity and enhancing the effectiveness of Brazil’s social protection system.

1.2 Objectives and research questions

The objective of this case study is to examine exclusion errors in Brazil’s PBF and identify potential improvements in targeting and implementation practices to enhance equity. Specifically, aligned with the overall project’s goals, this study addresses the following research questions:

1. What are the characteristics of the targeting mechanisms used in Brazil’s cash transfer program, PBF?
2. How is PBF intentionally designed to address the exclusion or inclusion of people with intersectional identities?

3. What types of exclusion errors does this program have, and what is their magnitude?
4. What specific groups of people are being excluded from PBF due to targeting errors?
5. What causes are identified as determinants of exclusion errors in the PBF program?
6. Are there good practices, promising practices, or effective strategies to achieve greater equity in PBF's targeting mechanisms?

1.3 Methodology

The study used a mixed-methods approach, implemented in three sequential and complementary phases, to analyze exclusion errors in the PBF.

Phase 1: Desk Review. The study began with an in-depth literature review to understand the evolution, design, and targeting mechanisms of the PBF. This phase mapped how beneficiaries are identified and selected, with particular attention to the influence of institutional frameworks and policy changes on the program's targeting performance over time.

Phase 2: Qualitative Research. The second phase involved qualitative fieldwork aimed at understanding how exclusion errors are perceived and experienced by different stakeholders. The research team conducted a total of 22 semi-structured interviews with public officials at the federal and municipal levels, professionals from the social assistance system, academic researchers, and civil society representatives. In addition, data collection included six focus groups with individuals from historically marginalized groups, including beneficiaries and non-beneficiaries in urban and rural areas, individuals experiencing homelessness, and members of traditional communities. These insights were instrumental in identifying both structural and contextual barriers to accessing PBF, as well as local practices that have been successful in supporting inclusion.

Phase 3: Quantitative Analysis. The third phase consisted of a quantitative analysis based on the 2023 edition of the Continuous National Household Sample Survey (PNADC). During this phase, the study estimated exclusion errors by analyzing program coverage among eligible groups, disaggregated by poverty threshold and income decile. The study also identified demographic and socioeconomic characteristics associated with exclusion,

including race, gender, and geographic location. The analysis further explored the distributional impacts of the program and assessed intersectional patterns in exclusion.

Together, these three phases provided a comprehensive and multi-dimensional understanding of exclusion errors in the PBF, integrating statistical evidence, institutional perspectives, and the lived experiences of affected populations.

1.4 General description of the program

PBF is Brazil's flagship CCT initiative, originally introduced in 2003 to address hunger and poverty while promoting human capital development, particularly among children and adolescents. Although it was temporarily replaced by the *Auxílio Brasil* program in 2021, the program was formally reinstated and restructured under Law No. 14,601 on June 19, 2023.

PBF targets low-income families registered in the Unified Registry for Social Programs (*Cadastro Único para Programas Sociais* or CadÚnico) as eligible, focusing on those with monthly per capita income up to R\$ 218 (approximately USD 99, based on 2017 PPP, which refers to Purchasing Power Parity). Families earning between R\$ 218 and half the minimum wage¹ can stay in the program for up to 24 months under the "transitional rule," receiving 50% of their eligible benefits and retaining priority for reentry if their income drops again.

The program offers several types of financial assistance to individuals and households. Each household member receives R\$ 142 (USD 64), and every family is guaranteed a minimum monthly income of R\$ 600 (USD 271). Additional benefits include R\$ 150 (USD 68) for each child under 7 years old and R\$ 50 (USD 23) for pregnant women, breastfeeding mothers, and children or adolescents aged 7 to 18. Eligible households also benefit from a bimonthly gasoline subsidy, covering 50% of the national average price of a 13kg cylinder of cooking gas.

As a CCT, PBF requires families to meet certain health and education conditions. Pregnant women must attend prenatal care, children must follow the national vaccination calendar, children under seven must undergo regular nutritional monitoring; and school-aged children and adolescents must maintain a minimum attendance rate at school.

¹ In 2023, the minimum wage in Brazil was R\$ 1,320, equivalent to approximately USD 597, based on 2017 PPP.

The federal, state, and municipal governments coordinate PBF through a decentralized structure. The Decentralized Management Index (*Índice de Gestão Descentralizada* or IGD) promotes local accountability and encourages effective implementation by linking performance to financial incentives. It has two components: IGD-M, which assesses municipal performance in maintaining updated CadÚnico data and monitoring health and education conditionalities; and IGD-E, which evaluates state-level coordination and support for program implementation. Based on their IGD scores, municipalities receive additional federal transfers that can be used to invest in staffing, equipment, outreach, and service improvements. This performance-based funding mechanism incentivizes municipalities to deliver the program effectively and equitably across diverse territories. As of December 2023, the program served approximately 21.2 million families, covering over 55 million people across Brazil.

By delivering consistent financial support linked to human development goals, PBF significantly contributes to Brazil's broader strategy to reduce poverty and inequality, especially for vulnerable and historically excluded populations.

1.5 Key findings

PBF targets families through two primary steps. First, families register in the CadÚnico, with data collected and updated by municipal-level Social Assistance Reference Centers (CRAS). The federal government determines eligibility based on self-reported monthly per capita income, which must remain below R\$218. Second, after verifying eligibility through automated cross-checks between CadÚnico data and federal administrative records (such as tax, social security, and employment databases), Federal Savings Bank (Caixa Econômica Federal, or Caixa)—the federal bank responsible for program enrollment and payments—automatically identifies eligible families and transfers the benefits. The process includes automatic continuity for families whose income slightly exceeds the threshold, along with mechanisms for regular data updates and support from municipal social assistance offices (CRAS).

Findings from this study show that exclusion errors are moderate under the official PBF eligibility threshold. In 2023, 28% of poor households and 20% of poor individuals who met the aforementioned requirements did not receive benefits from this program. However, exclusion errors rise significantly with broader poverty thresholds. For instance, under the

World Bank's upper-middle-income poverty line (R\$659 or US\$299 per capita per month), 40% of households and 37% of individuals miss out on program benefits. While PBF achieves high coverage among the poorest income deciles (above 70%), many households living just above the poverty line remain excluded.

Despite these gaps, PBF effectively concentrates benefits on the most vulnerable. Over 91% of recipients and 92% of program resources target the poorest 40% of the population. Beneficiaries typically include Black, female-headed households with children, low levels of education, and rural residency in the North and Northeast. These profiles align with the program's priorities and reflect strong progressive targeting.

Households that differ from this profile: households led by men, those without young children, and residents in urban centers or wealthier regions like the South and Southeast. However, contrary to concerns about intersectional exclusion, our findings do not suggest compounded vulnerability. Being a Black woman living in rural areas of the North/Northeast with children lowers the likelihood of exclusion. Instead, eligible white men in urban areas with higher education and no children represent the group most at risk of being overlooked, showing that PBF effectively prioritizes classic markers of vulnerability.

Qualitative data highlights implementation barriers that drive exclusion. Families in remote areas, Indigenous and Quilombola communities, people experiencing homelessness, and other groups with informal living arrangements or mobility challenges encounter difficulties accessing CRAS offices, are not reached by PBF outreach efforts, may lack official documentation, and may have challenges in updating household information.

Survey instruments such as PNADC may underestimate actual PBF coverage due to methodological constraints in capturing household-level benefits and reaching hard-to-access populations. This underscores the need to improve data systems and monitoring mechanisms for better program assessment.

1.6 Conclusions

Although Brazil's poorest households benefit significantly from PBF, exclusion errors persist, especially under broader poverty thresholds. The program simplifies eligibility verification by using self-declared income in the CadUnico, but this approach leaves room for underreporting, outdated data, and limited responsiveness to sudden changes in living conditions. Structural barriers, such as restricted access to CRAS offices, lack of civil

documentation, and logistical challenges in rural, remote, or informal territories, also hinder eligible households from being included in the program.

While PBF excels at targeting the poorest households—especially Black, female-headed families with children in rural areas—other groups face higher risks of exclusion. These include male-headed households, families without young children, and residents in urban areas of wealthier regions. Populations experiencing intersectional vulnerability, such as Indigenous, Quilombola, or homeless individuals, often struggle with geographic isolation, stigma, and limited access to social services.

The 2023 redesign introduced important improvements, like extended eligibility periods and automatic continuity rules. However, the system still relies heavily on the proactive efforts by families and local governments. To address gaps in inclusion, additional strategies should focus on engaging populations that standard registration processes tend to overlook.

1.7 Recommendations

This study provides suggestions to minimize exclusion errors and enhance access to the PBF, drawing on research and field experiences in Brazil. While some municipalities have already implemented these practices, broader implementation could better serve the most vulnerable populations.

1. Expand active outreach and decentralized services. Mobile registration teams, outreach boats, and itinerant task forces have demonstrated effectiveness in reaching populations residing in rural, riverine, border, or urban periphery areas. Collaborations with civil society, local leaders, and community organizations can assist in identifying underserved families and reducing access barriers. It is essential to scale and sustain these initiatives as part of a comprehensive territorial inclusion strategy.

2. Strengthen the professional capacity and stability of the Unified Social Assistance System (Sistema Único de Assistência Social or SUAS) teams. Strengthen the structure and professionalization of local social assistance services (CRAS and CadUnico teams) by ensuring permanent hires and investing in continuous, high-quality training. Well-trained teams can provide better guidance, conduct sensitive interviews, and manage complex vulnerability cases.

3. Improve tailored support for specific populations. Certain groups, including pregnant women, individuals with disabilities, LGBTQIA+ youth, Indigenous peoples, migrants, and those experiencing homelessness, encounter distinct challenges in accessing and maintaining benefits. To prevent exclusions arising from intersectional vulnerabilities, it is essential to implement flexible service hours, adapt documentation requirements, and consider atypical expenses such as medical costs or housing instability.

4. Modernize CadUnico and integrate data systems. Improved interoperability between administrative databases, such as health, education, labor, and civil registry systems, could facilitate quicker identification of eligible families, prevent duplication, and enable timely follow-up. Regular home visits and local-level cross-checks can supplement national data enhancements.

5. Enhance communication strategies. Many families remain unaware of program requirements, such as updating registration or reporting income changes. Targeted and accessible communication—through community radios, local leaders, WhatsApp groups, and visual materials—can clarify these requirements and improve compliance. Digital tools should complement analog alternatives to support those with limited internet access or digital literacy.

6. Facilitate access for homeless individuals, migrants, and undocumented populations. Exclusion often stems from strict requirements like proof of residence or formal documentation. Successful strategies include accepting shelter addresses, working with local shelters or street teams, and adapting services for mobile populations. These practices should be expanded and institutionalized.

7. Address income volatility and eligibility rigidity. Current eligibility rules often fail to reflect the dynamic nature of poverty. Short-term income gains—frequently from informal or temporary work—can cause benefit cancellations, even when families remain vulnerable. Using complementary indicators and implementing faster reentry mechanisms could reduce exclusion while maintaining program integrity.

8. Ensure fair access for single-person households. The rapid growth of this group in the registry in recent years, partly driven by incentives created during the pandemic, has raised concerns about data reliability and inclusion. Verification tools should improve to

prevent misuse without penalizing genuinely vulnerable individuals, such as elderly people living alone, transgender individuals, or youth estranged from their families.

In summary, a responsive and territorially sensitive approach—built on professional teams, local partnerships, and flexible program design—is vital for improving inclusion in PBF. Advancing the right to social protection in Brazil requires continued investment, adaptive governance, and listening to the lived experiences of users and frontline workers.

2. Introduction: Study Overview

2.1 Background

Cash transfer programs have shaped social protection systems in Latin America since the late 1990s, tackling poverty reduction through a dual strategy: offering immediate financial support and fostering human capital development. In Brazil, PBF stands out as the most prominent program. Launched in 2003, PBF unified and expanded several fragmented initiatives into a single, CCT program. It guarantees a minimum income and promotes social inclusion, especially for families with children and adolescents living in poverty.

By linking income support to meeting conditions related to education and health—such as minimum school attendance, vaccinations, and maternal prenatal care—PBF addressed short-term income needs while actively working to break intergenerational cycles of poverty. The Ministry of Development and Social Assistance, Family and Fight Against Hunger (*Ministério do Desenvolvimento e Assistência Social, Família e Combate à Fome* or MDS) administers the program, relying on the CadUnico to target beneficiaries. This registry, which collects detailed socioeconomic information, operates at the municipal level under local authorities, through structured interviews conducted by trained staff at CRAS.

Between 2003 and 2021, PBF gained international recognition for its coverage, efficiency, and equity. At its peak in June 2024, the program supported 20.84 million families, representing over 55 million people. The program prioritized gender and racial equity, with 83.7% of beneficiaries being women and 73% identifying as Black or Brown² individuals by 2024.

In 2021, *Auxílio Brasil* temporarily replaced PBF, introducing structural changes but drawing criticisms for its design, limited reach, and political use. In June 2023, lawmakers reinstated the original PBF through Law No. 14,601. The revamped program expanded benefits and focused anew on fighting hunger, ensuring educational access, and promoting early childhood development. Today, PBF includes specific additional benefits for young children, pregnant and lactating women, and other vulnerable family members.

² In Brazil, racial and color classifications are based on self-identification and follow the categories used by the Brazilian Institute of Geography and Statistics (IBGE): Branco (White), Preto (Black), Pardo (Brown or mixed race), Amarelo (Yellow, for individuals of East Asian descent), and Indígena (Indigenous). National statistics often group pretos and pardos together as "Black or Brown" to reflect the broader Afro-descendant population. These categories may differ from those used in other countries.

Despite its successes, the program still excludes some eligible families due to administrative hurdles, limited outreach, data inconsistencies, and structural barriers related to race, gender, and geography. These challenges intensify with income volatility, shifts in household composition, uneven local implementation capacity, and difficulties reaching remote or underserved populations. While PBF outperforms international benchmarks in targeting, exclusion disproportionately affects vulnerable groups such as Quilombola communities, Indigenous peoples, people with disabilities, and homeless families.

The “Equity and Cash Transfers in Brazil, Colombia, and Mexico” research project examines these exclusion errors, focusing on their scale, causes, and impact on equity. The project aims to identify the groups often left behind, uncover weaknesses in current targeting tools, and recommend improvements to boost coverage and fairness in social protection delivery.

2.2 Objectives and research questions

This case study aims to analyze exclusion errors in Brazil's PBF and identify how targeting and implementation practices can be improved to promote greater equity. As part of the "Equity and Cash Transfers in Brazil, Colombia, and Mexico" project, it addresses the following research questions:

1. What are the characteristics of the targeting mechanisms used in Brazil's cash transfer program, PBF?
2. How is PBF intentionally designed to address the exclusion or inclusion of people with intersectional identities?
3. What types of exclusion errors does this program have, and what is their magnitude?
4. What specific groups of people are being excluded from PBF due to targeting errors?
5. What causes are identified as determinants of exclusion errors in the PBF program?
6. Are there good practices, promising practices, or effective strategies to achieve greater equity in PBF's targeting mechanisms?

2.3 Methodology

The study used a mixed-methods approach, structuring its investigation into three interconnected components: (i) a systematic literature review, (ii) qualitative fieldwork, and (iii) a quantitative analysis of nationally representative survey data. This combination

provided a comprehensive examination of exclusion errors in the PBF, integrating evidence on targeting performance, operational bottlenecks, and intersectional vulnerabilities.

Systematic Literature Review

The review focused on national and international literature from the past two decades to explore how exclusion errors and equity issues intersect with PBF. It emphasized targeting mechanisms, implementation challenges, and intersectionality. Insights from this phase shaped the analytical framework for the study's subsequent stages.

Qualitative Analysis

The qualitative component sought to understand exclusion from PBF by focusing on institutional practices, territorial inequalities, and lived experiences. Researchers conducted 22 semi-structured interviews and six focus groups between late 2024 and early 2025. Thirty key informants participated in the interviews, including federal officials, municipal social assistance managers, CRAS frontline workers, researchers, and civil society representatives. The focus groups engaged 43 women beneficiaries across six municipalities in five Brazilian regions. The distribution of participants by type of informant is presented in Table 1.

Table 1 - Key Informants and Focus Group Participants

Informant type	Number
Federal government officials	4
Researchers and social policy experts	6
Municipal social assistance managers	8
Municipal social workers (CRAS and Centro POP)	8
Civil society representatives and social movement leaders	4
Total interview informants	30
Women PBF beneficiaries (focus groups, 6 municipalities)	43

Source: Authors' elaboration from qualitative fieldwork conducted between November 2024 and March 2025.

Researchers focused the interviews on program design and targeting, access barriers, operational dynamics, and suggestions to improve inclusion. The focus groups highlighted perspectives on registration, benefit suspension, interactions with CRAS, and the perceived fairness of program rules. Local social assistance services recruited participants, and the team recorded, transcribed, and coded discussions using NVivo 15. They applied an abductive coding strategy, combining deductive categories shared across countries with inductive themes specific to the Brazilian context. The final codebook featured 67 thematic codes

organized into five domains: Program Design, Implementation, Exclusion, Cross-Cutting Themes (e.g., gender, race, disability, rurality), and Recommendations. Matrix queries helped explore thematic intersections and regional variations in perceived access and fairness.

Quantitative Analysis

The exclusion error (EE) indicator calculates the proportion of poor individuals without program benefits. Using the notation of Cornia & Stewart (1993), A represents the number of poor beneficiaries, and C represents the number of poor non-beneficiaries. The formula for exclusion error is $EE = C / (A + C)$. The coverage rate (CR) measures the proportion of poor people receiving the benefit and follows the formula $CR = A / (A + C) = 1 - EE$.

Both exclusion errors and coverage rates for PBF rely on estimates derived from (i) the eligible population under the program's criteria, (ii) the population in extreme poverty, and (iii) the population in poverty, as defined by the World Bank. Additionally, the analysis calculates coverage by income decile, dividing the number of beneficiaries in each decile by one-tenth of the total population. The study also presents curves that track the distribution of both beneficiaries and program resources across different economic strata, from the poorest to the wealthiest segments.

The analysis uses three poverty lines to classify potential program beneficiaries. The first, set at R\$218.00 (approximately US\$ 99 in 2017 PPP) per person per month, matches the official eligibility threshold for PBF. Families with a per capita monthly income at or below this amount qualify for the benefit. The second poverty line, set at R\$206.91 (US\$ 94) per person per month in fourth-quarter 2023 prices, aligns with the World Bank's international extreme poverty line. The third poverty line, R\$659.24 (US\$ 300) per person per month in 2023 Q4 prices, corresponds to the World Bank's poverty line for upper-middle-income countries. Brazil currently lacks an official national poverty line. Since the first two thresholds are close, estimates of exclusion and coverage based on these lines yield similar results.

Following Devereux et al. (2017), the first two poverty lines identify exclusion errors caused by implementation failures. These errors occur when eligible individuals or families do not receive benefits. The third poverty line highlights exclusion errors stemming from design flaws. These errors involve individuals or families who—while not eligible under the

current rules—face conditions the program aims to address, given its broader goal of eradicating not just extreme poverty but poverty as a whole. The estimates based on the World Bank poverty lines prove particularly valuable for making international comparisons.

Data Source and Limitations

Estimates of exclusion errors and coverage in PBF rely on secondary data from the 2023 Continuous National Household Sample Survey (PNADC). Conducted by the Brazilian Institute of Geography and Statistics (IBGE), the survey uses anonymized data from a rotating panel where each household is visited five times, once per quarter. Analysts based their work on the annualized dataset from the first interviews, which contains the most recent publicly available information required for these estimations.

The PNADC underestimates the number of PBF beneficiary families (Osório & Bruce, 2022). However, this is not a phenomenon unique to PBF or to Brazil. Household surveys often underestimate the number of social program beneficiaries like PBF due to stigma, confusion about benefit types, sampling limitations, or other reasons (Souza et al., 2019). In the United States, this underestimation ranges from 25% to 50%, depending on the program and data source (Habib, 2018). Compared to administrative records, the PNADC underreports the number of PBF beneficiary families by about 30% to 35% (Souza et al., 2019).

Several factors contribute to this discrepancy. PNADC excludes unhoused populations and individuals living in special areas, such as Indigenous villages, encampments, boats, nursing homes, rural settlement agro-villages, or census tracts located on Indigenous lands. Its target population focuses only on residents of permanent private households, leaving out those in improvised households, such as buildings not designed for housing or inadequate dwellings. Additionally, PNADC uses households as the unit of analysis, while PBF administrative records rely on families, creating further inconsistencies when a single household contains multiple families.

When comparing the total number of people in households reporting PBF receipt in PNADC to the total number of individuals in beneficiary families from administrative records, the underestimation becomes less stark. In 2023, PNADC reported 14.72 million households receiving PBF, which is 30.9% fewer than the program's official monthly average of 21.3 million families (Brasil, 2023). However, PNADC recorded 51.3 million

individuals living in PBF recipient households, while administrative data indicated between 54 and 56 million people—resulting in an underestimation of just 5% to 8.4%.

The average benefit amount reported by PNADC also shows minimal deviation. According to 2023 data, beneficiary households received an average of R\$649.21 per month, whereas administrative records show a monthly average of R\$670.36 per beneficiary family—a difference of only 3.1%.

Following Osório and Bruce (2022), to calculate the estimates, PNADC data for 2023 was processed in three steps: (i) excluding individuals who do not share household expenses, such as boarders, domestic employees, or their relatives; (ii) constructing variables for per capita household income, per capita PBF benefit, and PBF-adjusted per capita household income; and (iii) deflating income values to Q4 2023 using the National Consumer Price Index (INPC).

The analysis classifies individuals and families as poor based on PBF-adjusted per capita household income, assuming this metric accurately reflects their status without the program.

In Brazil, benefits target families rather than individuals. To compare Brazil's case with those of Colombia and Mexico, indicators are estimated at both family and individual levels. These indicators consider all individuals living in poor households poor and treat everyone in households to report PBF receipt as program beneficiaries.

After identifying exclusion errors, the analysis profiles excluded families and individuals with a focus on intersectionality. It examines variables such as gender, race or skin color, age, education, region of residence, census tract type, household size, and the presence of individuals under 18 years old.

3. Country characteristics

3.1 Population distribution

Brazil, the largest country in Latin America, had an estimated population of 212.6 million people in 2024, according to projections by the IBGE. The 2022 Demographic Census revealed women made up 51.5% of the population, while men accounted for 48.5%, showing nearly 6 million more women than men in the country. The census also indicated that 87.4% of the population resided in urban areas, leaving 12.6% in rural regions. In recent decades, Brazil has experienced a rapid demographic transition, characterized by accelerated population aging and a significant decline in fertility rates. Between 2000 and 2023, the fertility rate dropped from 2.32 to 1.57 children per woman, with projections suggesting a further decrease to 1.44 by 2040. During the same period, the median age of the population rose from 29 years in 2010 to 35 years in 2022. The aging index, which measures the number of elderly individuals per 100 children aged 0 to 14, climbed from 30.7 to 55.2 (IBGE, 2022).

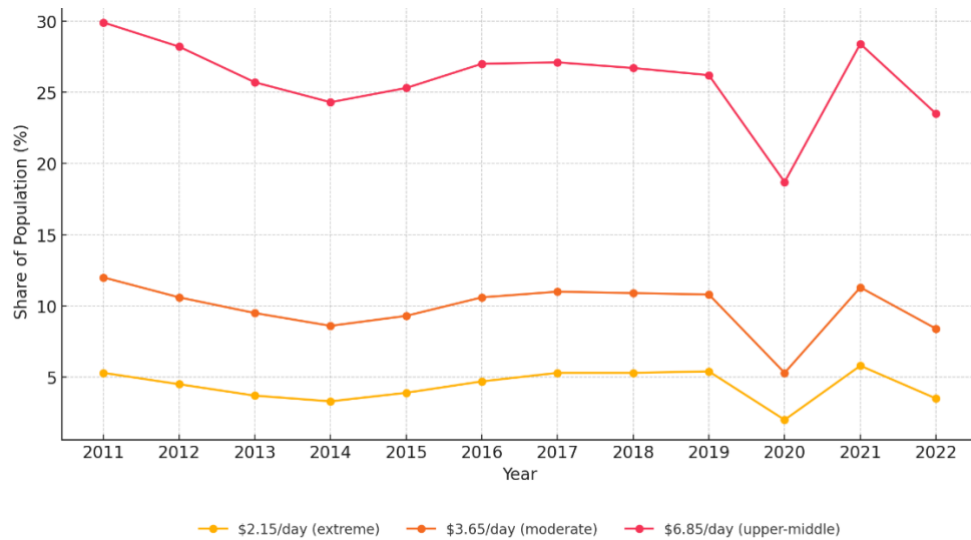
3.2 GDP per capita, economic growth trends

Brazil leads Latin America economically, boasting a GDP of approximately USD 2.17 trillion in 2023 and a GDP per capita of USD 10,295 (PPP 2017). Over the past decade, the country has navigated significant economic volatility, including periods of recession and modest recovery. A deep recession in 2015–2016 and the economic impacts of the COVID-19 pandemic disrupted growth, but the economy has since resumed expansion, albeit unevenly. Structural challenges, such as high interest rates, low productivity, and inequality, continue to hinder inclusive growth.

3.3 Human Development Index and poverty level

Brazil's Human Development Index (HDI) reached 0.786 in 2023, ranking the country 84th globally in the United Nations Development Programme (UNDP) index and placing it within the “high human development” category (UNDP, 2024). However, sharp regional, racial, and socio-economic disparities remain hidden behind this national average. Official data showed that 23.5% of the population lived below the national poverty line in 2022. At the same time, 3.5% of Brazilians earned less than USD 2.15 per day, and 8.4% earned less than USD 3.65 per day, according to World Bank international poverty lines (PPP 2017). (See Figure 1).

Figure 1. World Bank Poverty Headcount Ratio (PPP 2017)



Note: Data sourced from the World Bank's World Development Indicators (WDI). Figures reflect international poverty lines.

3.4 Key vulnerable groups

Afro-Brazilians—comprising individuals who identify as Black (preto) or Brown (pardo)—make up approximately 55.5% of Brazil's population. Among them, 10.2% identify as Black and 45.3% as Brown, according to the 2022 Census (IBGE, 2022). Poverty disproportionately affects these groups, limiting their access to quality education, healthcare, and job opportunities (IBGE, 2022). Brazil's Indigenous population stands at around 1.7 million, representing 0.83% of the total population. Over half of this population (51.2%) live in the Legal Amazon region³, while another 31.2% reside in the Northeast. The quilombola population, consisting of descendants of Afro-Brazilian communities formed by escaped slaves, was officially counted for the first time in 2022. It totals 1.3 million people (0.65% of the population), and most live in the Northeast. Only 12.6% occupy officially recognized quilombola territories (IBGE, 2022). These populations endure higher poverty rates and persistent exclusion, particularly in rural and remote areas (IBGE, 2022).

³ The Legal Amazon region (*Amazônia Legal*) comprises nine Brazilian states: Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia, Roraima, and Tocantins. It is a legal-administrative designation used for regional development and environmental policies.

3.5 Income inequality - Gini Index

Brazil ranks among the most unequal countries in the world. In 2022, the country's Gini index—a measure of income inequality—reached 0.52, well above the global average of 0.38, placing it within the top 10 most unequal nations globally. Although economic growth and social programs like PBF reduced inequality between 2001 and 2014, recent years have seen stagnation or reversal in this progress. The Gini coefficient, which fell to 0.49 in 2014, climbed back to 0.52 by 2022. Inequality in Brazil reflects deep connections with race, geography, and gender. White workers, on average, earn 74% more than Black and Brown workers. Additionally, Black and Brown Brazilians disproportionately occupy the poorest segments of the population (World Bank, 2024).

3.6 Unemployment rates and labor market dynamics

Brazil's national unemployment rate fell to 7.8% in 2023, the lowest annual figure since 2014. Despite this progress, youth unemployment and informal employment continue to pose significant challenges. In the fourth quarter of 2023, informal workers accounted for 38.6% of the employed population, representing approximately 39.5 million people (IBGE, 2024).

The labor market also shows pronounced disparities in gender and race. During the same quarter, the unemployment rate reached 9.2% for women, compared to 6.0% for men. Among racial groups, unemployment stood at 5.9% for white individuals, 8.9% for Black individuals, and 8.5% for Brown individuals (IBGE, 2024).

3.7 Overview of the country's social protection system

Brazil's social protection system integrates contributory social insurance with non-contributory social assistance programs. The National Social Security Institute (*Instituto Nacional do Seguro Social* or INSS) manages contributory programs, which include pensions, unemployment insurance, and other benefits tied to formal employment.

Non-contributory programs focus on supporting low-income and vulnerable populations through the SUAS, Brazil's decentralized public system for social assistance. Established in 2005, SUAS operates across three levels of government. The federal government handles financing, standard-setting, and oversight, primarily through the MDS. State governments coordinate regional implementation, while municipal governments oversee direct service delivery, including CRAS and Specialized Reference Centers (*Centros de Referência Especializados de Assistência Social* or CREAS).

Within this framework, the PBF serves as the country's largest conditional cash transfer initiative. Reinstated in 2023, PBF offers monthly income to families earning less than R\$218 (USD 99) per capita, requiring children to attend school and undergo health monitoring. It is a key instrument for both short-term poverty alleviation and long-term human capital development. In 2023, the program supported over 21 million households, guaranteeing a minimum monthly transfer of R\$600 (USD 273) per family, with additional supplements based on family composition.

Another major non-contributory policy, the Continuous Benefit Payment (Benefício de Prestação Continuada or BPC) program, provides a monthly minimum wage to elderly individuals aged 65 and older and to persons with disabilities whose household per capita income falls below one-quarter of the minimum wage. As an entitlement created by the Constitution, BPC does not require compliance with behavioral conditions.

Key policies like the National School Feeding Program (Programa Nacional de Alimentação Escolar or PNAE) delivers daily meals to public school students while promoting nutrition, food security, and local agriculture. The Happy Child Program (Criança Feliz), an early childhood development program, offers home visits and multisectoral support to families with young children in vulnerable situations.

The CadUnico plays a central role in implementing these and other initiatives. Created in 2001, the CadUnico collects detailed socioeconomic information on low-income households. It supports not only PBF and BPC but also other federal, state, and municipal programs, such as housing, energy subsidies (Tarifa Social), early childhood services, and vocational training initiatives. By 2023, records for over 80 million individuals—roughly one-third of the national population—were included in CadUnico, making it the backbone of Brazil's targeted social assistance system.

Brazil's social protection system has become one of the most comprehensive in Latin America through this integrated structure. However, challenges persist in ensuring equitable access, reducing administrative fragmentation, and improving coordination across government levels and sectors.

3.8 Public spending on social protection and cash transfer programs

In 2023, Brazil directed approximately 13.6% of its GDP to social protection programs, including pensions, health care, and social assistance. While this spending level

ranks relatively high compared to other Latin American countries, contributory pension benefits consumed a large share—around 4% of GDP. This allocation reduces the redistributive effect of social spending for the poorest segments of the population.

PBF, operated with BFP a budget of approximately R\$168.6 billion (roughly USD 35 billion) in 2023, which represented about 1.5% of GDP. The program expanded and increased benefit amounts, supporting over 21 million beneficiary families. PBF plays a key role in reducing poverty and promoting social inclusion, although its expansion raises concerns about long-term fiscal sustainability due to Brazil's limited fiscal space for other priorities (Falcão et al, 2023).

4. Description of the Cash Transfer Program

4.1 Program Overview

Launched in 2003, PBF unified several fragmented income support schemes into a single initiative aimed at combating poverty, hunger, and social exclusion. The program immediately provides income relief to poor and extremely poor families while fostering long-term poverty reduction by requiring school attendance, vaccinations, and health checkups for children. These conditions help develop human capital effectively.

In 2021, the federal government replaced PBF temporarily with Auxílio Brasil to address issues arising from the COVID-19 crisis. Auxílio Brasil increased benefit values and added new program components, such as incentives for academic performance and support for early childhood development. However, the program weakened key aspects of PBF, including institutional coordination, conditionalities, and intersectoral linkages. These changes raised concerns about program fragmentation and reduced its effectiveness in reaching the most vulnerable.

In 2023, Law No. 14,601 reinstated and restructured PBF, restoring its foundational principles and reaffirming its role as a central pillar of Brazil's social protection system. The updated program maintained the R\$600 (approximately USD 271.64, PPP 2017) minimum monthly benefit per family, reinstated conditionalities in education and health, and added targeted supplements for young children, pregnant women, and adolescents. It also emphasized the mandatory use of the CadÚnico for identifying beneficiaries and strengthened coordination with other social services under SUAS.

Currently, PBF addresses both short-term income deprivation and long-standing structural issues like food insecurity, child labor, school dropouts, and limited access to essential services. It continues to serve as a cornerstone of Brazil's social safety net and remains an internationally recognized model for targeted cash transfer programs.

To qualify for the program, families must register in the CadUnico and have a monthly per capita income of up to R\$ 218 (approximately USD 98.64, PPP 2017). Families slightly above this threshold (up to half the minimum wage per capita) can stay in the program for up to 24 months, receiving 50% of the benefit amount, while maintaining priority for reentry if their income later falls below the eligibility line.

The restructured PBF introduces a layered system of benefits, tailored to household composition and life cycle vulnerabilities:

- Citizen Income Benefit (Benefício de Renda de Cidadania): Each household member receives R\$ 142 ($\approx$ USD 64.30, PPP 2017).
- Complementary Benefit (Benefício Complementar): This top-up ensures every family earns at least R\$ 600/month ($\approx$ USD 271.64, PPP 2017).
- Early Childhood Benefit (Benefício Primeira Infância): Families with children aged 0 to 6 receive R\$ 150 ($\approx$ USD 67.91, PPP 2017) per child.
- Variable Family Benefit (Benefício Variável Familiar): Pregnant women, lactating mothers, children aged 7–12, and adolescents aged 12–18 qualify for R\$ 50 ($\approx$ USD 22.64, PPP 2017) each.
- Gas Assistance Program (Auxílio Gás): This bimonthly transfer covers 50% of the average national cost of a 13kg cooking gas cylinder.

These benefits come with responsibilities in education and health. Families must enroll children and adolescents in school, ensure their regular attendance, follow the national vaccination schedule, and provide prenatal and postnatal care to mothers. Families also must monitor the nutrition of young children, reinforcing the program's focus on income protection and long-term human capital development.

Objectives

Law No. 14,601 (2023) and programmatic guidelines from the MDS define specific objectives for PBF. These objectives aim to guarantee a minimum income for families living

in poverty and extreme poverty; promote access to essential services such as health care, education, and social assistance; improve food and nutritional security for children and vulnerable household members; reduce social and economic inequalities, particularly among families with children and adolescents; and strengthen cooperation between social protection policies across different levels of government. This integrated approach to poverty alleviation combines income support with human capital investments and ensures rights-based access to public services.

Target population and prioritization criteria

PBF targets families in poverty and extreme poverty who are registered in CadUnico. A transitional rule allows eligible families to remain in the program for up to 24 months with reduced benefits.

By mid-2024, the PBF served over 20.8 million families, benefiting more than 55 million people. The program prioritizes individuals and families facing heightened vulnerabilities, including:

- Families with children or adolescents aged 0–17
- Pregnant and lactating women
- Families living in extreme poverty
- Families with persons with disabilities
- Indigenous families
- Quilombola families
- Homeless families
- Families of recyclable material collectors
- Riverside (ribeirinha) communities
- Single-person households led by women in situations of vulnerability

These prioritization rules rely on automated selection algorithms that the federal government implements using data from CadUnico. In regions with high poverty rates or historically underserved populations—especially in the North and Northeast—families from these groups receive priority during benefit processing and enrollment.

In 2025, authorities applied additional safeguards to single-person households, which have disproportionately increased in some municipalities. Municipalities where over 16% of

families in poverty are single-person households undergo enhanced registry review procedures, unless households belong to one of the protected groups mentioned above.

Program governance utilizes the IGD to incentivize municipal and state governments to maintain updated records, track compliance with conditions, and improve service delivery. Municipalities that achieve higher IGD performance receive additional federal transfers to invest in PBF operations, outreach, and monitoring.

Conditions imposed

To stay eligible for the PBF, beneficiary families must meet a set of responsibilities, or conditionalities, that promote children's education, maternal and child health, and access to public services. These conditions aim to strengthen the connection between income support and human capital development. In education, children and adolescents aged 4 to 17 must enroll in school and maintain at least 85% attendance. For health, families must ensure pregnant women receive prenatal care, children under 7 undergo regular nutritional assessments, and all children follow the national vaccination schedule.

The ministries of health, education, and social development coordinate efforts to monitor conditionalities by using integrated systems to track compliance. Noncompliance may lead to warnings, temporary suspension, or cancellation of benefits, depending on its frequency and duration. However, the program includes safeguards to avoid penalizing families facing extreme vulnerability, especially when structural barriers limit access to services. The IGD also uses compliance with conditionalities as a key performance indicator, which influences financial transfers to local governments and encourages active monitoring and case management at the municipal level.

Program funding and budget

PBF relies on federal government financing through general revenues, as outlined by Brazil's Lei Orgânica da Assistência Social (LOAS). This legal framework designates the federal government as responsible for funding non-contributory social assistance programs, including cash transfers. The Union Budget (Lei Orçamentária Anual – LOA) authorizes the program's financing annually, and states or municipalities do not contribute matching funds.

Over the last five years, federal spending on income transfers has fluctuated significantly due to programmatic changes and emergency measures. In 2020, during the

COVID-19 pandemic, Brazil launched Emergency Aid (Auxílio Emergencial), which raised social transfer spending to a historic high of R\$ 321 billion (approximately USD 145 billion, PPP 2017). In 2021, the introduction of Auxílio Brasil reduced expenditures to R\$ 89 billion, which increased slightly to R\$ 97.5 billion in 2022 (USD 40–44 billion, PPP 2017).

The reinstatement and restructuring of PBF in 2023 under Law No. 14,601 led to a significant budget increase, totaling R\$ 175 billion (approx. USD 79 billion, PPP 2017). For 2024, the federal government allocated an estimated R\$ 170 billion (USD 76 billion, PPP 2017). These expenditures account for approximately 1.5% of Brazil's GDP, ranking PBF among the most extensive cash transfer programs in the Global South.

The federal government centrally manages and distributes the budget monthly through Brazil's Federal Savings Bank (Caixa Econômica Federal, or Caixa). While subnational governments do not fund the program, they receive federal transfers through the IGD. This performance-based mechanism rewards municipalities and states for effectively managing PBF and CadUnico. Local governments use these resources to improve capacity, update registry data, train staff, and enhance service delivery.

4.2 Administrative Structure and Implementation

Agencies Involved in Program Design and Execution, and Governance Structure

The administrative structure and implementation of the PBF showcase Brazil's decentralized approach to social protection delivery. The MDS oversees the program's design, management, and operation. Within the MDS, the National Secretariat for Citizenship Income (*Secretaria Nacional de Renda de Cidadania* or SENARC) defines program rules, eligibility criteria, benefit structures, conditionalities, and evaluation processes.

At the federal level, Brazil's Federal Savings Bank handles monthly payment disbursements, manages digital platforms, and issues benefit cards to beneficiaries, ensuring secure and regular government-to-person payments.

Municipal governments take on primary responsibility for program implementation. They register and update household information in the CadUnico, monitor compliance with health and education requirements, address grievances, and mobilize eligible families. Each municipality appoints a Bolsa Família Manager, usually based within the local Social

Assistance Secretariat (*Secretaria de Assistência Social*), to manage operations and coordinate with the federal government.

This decentralized implementation aligns with SUAS, Brazil's unified system for organizing social assistance across federal, state, and municipal levels. The SUAS includes:

- CRAS, which manage CadUnico registration, family support services, and referrals;
- CREAS, which serve individuals and families facing rights violations or complex vulnerabilities;
- Specialized Reference Centers for the Homeless Population (*Centros de Referência Especializados para População em Situação de Rua*, or Centros POP), which focus on homeless populations and facilitate access to benefits including PBF.

Key Implementation Processes

The PBF implementation processes follow the framework outlined in the World Bank's "Sourcebook on the Foundations of Social Protection Delivery Systems" (Lindert et al., 2020). This framework organizes processes into six phases: outreach, registration, eligibility determination, enrollment, benefit delivery, and monitoring.

1. Outreach and Registration: Families register with CadUnico through local CRAS units. Registration involves reporting detailed household data and requires regular updates. Mobile registration units and community outreach strategies ensure access to vulnerable or remote populations.
2. Eligibility Determination: The program determines eligibility based on per capita income thresholds. Transitional rules allow families slightly above this threshold to stay in the program for up to 24 months with partial benefits. CadUnico data verifies eligibility, and algorithms prioritize more vulnerable profiles, such as large households with children, Indigenous families, and Quilombola communities.
3. Enrollment and Onboarding: After confirming eligibility, the program enrolls families and informs them of their rights and responsibilities, including conditionalities. Families access benefits through the Caixa Tem app or a physical benefit card.
4. Compliance Monitoring: Families must meet health and education conditions, and the program tracks compliance using data from education (Integrated Monitoring and

Management System for Education, *Sistema Integrado de Monitoramento, Execução e Controle do Ministério da Educação*, or SIMEC) and health (Food and Nutrition Surveillance System, *Sistema de Vigilância Alimentar e Nutricional*, or SISVAN) systems. Persistent noncompliance can lead to benefit suspension.

5. **Benefit Payment:** Caixa manages monthly benefits, which include base income, child supplements, and bonuses like the gas voucher. Beneficiaries receive payments on dates organized by their Social Identification Number (*Número de Identificação Social* or NIS).
6. **Grievance Mechanism:** Beneficiaries update information or lodge complaints through CRAS, municipal secretariats, or Caixa channels. Specialized services assist families facing complex needs.

Coordination with Other Social Protection Initiatives

Coordination with other social programs strengthens PBF's structure. CadÚnico serves as the gateway for over 30 federal programs, such as Social Electricity Tariff (*Tarifa Social de Energia Elétrica*, or TSEE) and Gas Voucher (*Auxílio Gás*). Additionally, PBF integrates within SUAS to enhance referrals, service delivery, and holistic social protection responses.

The federal government incentivizes quality local implementation by transferring resources to municipalities through the IGD-M. This index evaluates data updating, conditionality monitoring, and fund management performance. Municipalities with higher IGD-M scores receive larger financial transfers, promoting results-based management and service improvement.

5. Research Findings

5.1 Characteristics of the Targeting Mechanisms

Description of the targeting methods and processes

PBF relies primarily on CadÚnico, a unified social registry designed to identify low-income families in Brazil. Brazil bases its approach on self-declared information, which officials periodically verify and cross-check with administrative records. The targeting process involves three main phases: (i) outreach and communication, (ii) identifying and registering eligible households, and (iii) enrolling families and assigning benefits.

Outreach and Communication Strategies

Outreach for the PBF often relies on decentralized efforts with families expected to seek registration at local CRAS. Some proactive strategies, such as mobile units and local campaigns, promote CadÚnico registration. Interviews with federal and municipal managers emphasized that local governments play a crucial role in outreach success. These strategies were found to be particularly effective in reaching populations living far from CRAS units, including Indigenous and Quilombola communities, people experiencing homelessness, as well as residents of rural areas or peripheral urban neighborhoods, though their availability and frequency vary depending on local resources and coordination capacity. In certain territories, particularly rural or peripheral urban areas, transportation challenges and limited information infrastructure hinder awareness of program eligibility. As one municipal official stated, *“Families often don’t know they have the right [to apply]. If no one from the CRAS or health post goes there, they remain invisible.”*

Identification and Registration of Beneficiaries

The process to identify eligible families begins with their inclusion in CadÚnico. Local staff collect socio-economic information through structured interviews with households. However, data quality is highly dependent on the capacity of municipalities and the availability of trained interviewers. In municipalities with limited resources, frequent staff turnover, or insufficient training, data may be inconsistently recorded or poorly updated. Technological infrastructure also plays a role—municipalities with unstable internet connectivity often experience delays in entering or validating information. These challenges can lead to outdated or incomplete records, which undermine targeting accuracy and program efficiency. Cross-referencing with other government databases—such as income tax filings, social security data, and school enrollment records—validates the information. Despite these measures, operational gaps remain. Specific groups, including people experiencing homelessness, Indigenous families, and migrants, face challenges due to barriers in documentation or residence requirements, as noted by several interviewees. As one CRAS technician explained, “Many families give up on registration because they try more than once and are told they’re missing a document or that their address doesn’t count. They feel the door is closed.” These barriers result in delayed or missed access to benefits, especially among those with the most complex vulnerabilities.

Enrollment and Benefit Assignment

Once registered and validated, the MDS ranks families based on their declared income, and automatically selects eligible households through the PBF's centralized system. The benefit calculation considers family composition, income level, and the presence of children or pregnant women. However, budget ceilings limit benefit assignments, preventing the immediate enrollment of all eligible families. This creates “waiting lists” or de facto exclusion among the poor. Local administrators often express frustration with this limitation: *“Even when we update the families and everything is correct, they don’t enter the program because the federal government froze new entries.”*

Intersectionality and Inclusive Targeting

Although PBF does not explicitly apply an intersectionality framework to its targeting criteria, policymakers and outreach teams have prioritized groups facing overlapping vulnerabilities. For instance, Indigenous organizations, rural education programs, and health surveillance units have partnered to register Quilombola communities, people with disabilities, and families in extreme poverty. Despite these efforts, qualitative data shows that individuals embodying multiple marginalized identities—such as Black rural women or Indigenous migrants—often encounter compounded barriers when accessing PBF.

Some local health agents have played a critical role in facilitating access for families in underserved areas, reinforcing the value of proximity-based outreach:

“The community health agent here did the registration. So they came, registered me, and I started working at a gas station—but even so, I kept the right to receive the benefit.”
— Beneficiary

Incentives for creating intersectoral commissions at the local level also promote coordinated outreach, even though such commissions are not mandatory for municipalities:

“We created an incentive for the establishment of intersectoral commissions in the territory [...] municipalities are not required to have one to join the program—only the state—but if they create one, they get a 5% bonus on their IGD.” — Federal government official

Some municipalities go further by implementing mobile service teams and establishing fixed outreach points in remote areas, combining social assistance with other public services to reach excluded groups:

“The idea is to periodically—once or twice a month—bring the entire CRAS team [...] to those localities. If we manage to set up a fixed service point there once a week, we

might also be able to count on staff from the Civil Police to issue IDs or dental health professionals, for example, integrating actions to facilitate access not only to Bolsa Família and CadÚnico, but also to other linked benefits.” — Municipal social assistance manager

Challenges and Limitations in Targeting

The qualitative research identified several interconnected obstacles to effective targeting in PBF. Although the program is known internationally for its targeting accuracy, exclusion errors remain due to structural, institutional, and contextual factors. Three main issues were highlighted:

1. **Documentation and Registration Barriers:** Many groups, including people experiencing homelessness, undocumented migrants, trans individuals, and members of mobile or nomadic communities such as the Romani, face critical obstacles due to the lack of birth certificates, official identification documents, or a fixed address. In several territories, the CadÚnico system blocks entries without a valid postal code (Código de Endereçamento Postal, CEP) , which prevents CRAS workers from completing registration for families living in informal settlements or on the streets. This issue was frequently mentioned in interviews, particularly by social workers in large urban centers and CRAS technicians who face these barriers on a daily basis:

“There are people who have the right, but can’t access it because they don’t have a fixed address. Even with the shelter address being accepted, the bureaucracy is still significant.” (Municipal social worker).

A municipal social assistance coordinator from a large city further emphasized the difficulty of documenting people experiencing homelessness:

“It’s very difficult to regularize documentation for people experiencing homelessness. Many times, they’ve lost everything—ID cards, birth certificates—and that blocks the entire process.” (Municipal social assistance manager)

In addition to these institutional perspectives, focus group participants also expressed frustration over documentation and registration barriers.

“There are people who live on the street, who have no home, no ID, no address. How are they going to register? The system blocks it.” (Beneficiary)

This highlights how digital and bureaucratic requirements often exclude those in most precarious situations.

2. **Territorial Inequalities:** The ability to reach eligible families and maintain accurate records depends greatly on local infrastructure, transportation, and administrative capacity. Long distances, lack of transport, and scarce digital connectivity severely restrict access in remote areas like the Amazon, riverine zones, and rural municipalities. In urban peripheries, violence or armed groups often limit mobility for both families and CRAS workers.

“Only 20% of the population lives in urban areas; the rest are in rural zones and small towns. You have to travel 100, 200 kilometers, sometimes more, to reach the CRAS. And there’s not always a bus.”
(Municipal social worker)

“Sometimes you’d spend seven, eight hours by boat to reach these places.” (Federal government official)

“People live in fear. In some favelas, you can’t enter without permission from the drug factions. CRAS teams don’t always feel safe.” (Municipal social worker)

These territorial barriers are felt directly by program users. As one beneficiary described:

“Sometimes I didn’t go [to the CRAS] because of the distance and because I couldn’t afford the bus fare.” (Beneficiary)

Such testimonies underscore how physical and financial access barriers hinder timely registration and follow-up.

3. **Budget Constraints and Policy Discretion:** While most of the program’s funding goes to direct benefits, chronic underinvestment in service delivery, staffing, and infrastructure hampers local governments from conducting outreach, updating records, and providing follow-up services. Municipalities often use outdated equipment, struggle with high staff turnover, and operate with limited autonomy or flexibility. Federal budget decisions and poverty estimates influence eligibility criteria and enrollment quotas, causing delays or freezes in new admissions—even when local needs clearly exist.

“The budget is all directed toward benefits, but there is almost nothing left for services. Without resources for teams and infrastructure, we have incomplete CRAS centers, waiting lines, and families waiting for months.” (Municipal manager)

“We know who needs it, but our hands are tied. Without internet, staff, or transportation, how can we reach them?” (CRAS worker)

“Even when we identify eligible families, sometimes we can't include them immediately. There's a ceiling, and we have to wait for vacancies.” (Municipal social worker)

Beneficiaries in Maceió also highlighted these limitations, particularly the lack of service continuity and proper infrastructure. One person stated:

“We often come to the CRAS and hear that the system is down, or that we need to return another day. It's discouraging.” (Beneficiary)

These interruptions contribute to delays in benefit access and reduce trust in public services.

These limitations worsen as income volatility and dynamic household structures frequently push families in and out of eligibility. Strict income thresholds often exclude families facing high medical expenses or unstable, temporary jobs.

“There are many families who today have slightly higher incomes, but next month they lose their jobs. They go back to the waiting list, but don't always manage to re-enter.” (Municipal social worker)

“The system sees numbers, but doesn't see the reality. A grandmother receiving a pension may support five grandchildren. On paper, the income looks okay, but in practice, it's not.” (Municipal social assistance manager)

4. **Informational Barriers and Communication Gaps:** Many families remain unaware that they need to update records or struggle to understand why their benefits have been suspended. Miscommunication about conditionalities, eligibility, or program changes

creates confusion and distrust. In some regions, intermediaries exploit families by charging fees for making appointments or resolving banking issues.

“People come to CRAS saying they want to solve their Bolsa Família issue, but they don’t even know they need to update their registration.” (Municipal social worker)

“There’s an informal market around the system—people charging to make appointments or unlock cards.” (Municipal social worker)

A participant in Paranapanema described this feeling of confusion:

“They cut my benefit, and I didn’t even know why. I went to ask and they said I had to update my data. But no one had told me that.” (Beneficiary)

This lack of communication contributes to the sense of uncertainty and exclusion among families.

5. **Technological and Operational Capacity Constraints:** System outages, outdated equipment, and overloaded platforms like CadÚnico or Caixa systems frequently disrupt service delivery. High staff turnover and insufficient technical training weaken continuity and erode trust with families.

“Even when we want to help, the system is down, or there’s no internet. The structure simply doesn’t support the demand.” (Municipal social worker)

“There is a national guideline, but no obligation for municipalities to follow it. So the quality of service varies a lot.” (Researcher and social policy expert)

In summary, PBF’s technical targeting mechanisms appear strong on paper, but their effectiveness depends heavily on local capacity, infrastructure, and consistent investment. Advancing equal access across territories and profiles requires renewed efforts in training professionals, modernizing systems, creating flexible eligibility tools, and enhancing intersectoral outreach.

Recent and Planned Changes

During the COVID-19 pandemic and the transition to Auxílio Brasil (and now the reestablished PBF), Brazil introduced digital registration options and improved data interoperability. Since 2023, the federal government has worked to better integrate the CadÚnico with other administrative databases—such as those for education, health, and civil records—to enhance data quality and identify vulnerable families more effectively. Smartphone apps and digital services have also made it easier for beneficiaries to access and engage with programs. These initiatives signify important progress, but their implementation has varied across regions due to differences in local infrastructure, technical capacity, and institutional coordination. In many cases, inconsistent operational guidelines have hindered their full potential, underscoring the need for continued investment and support to ensure consistent application across the country.

5.2 Magnitude of Exclusion Errors

According to data from the 2023 Continuous National Household Sample Survey (PNADC), Brazil had 77.7 million permanent private households and a total population of 215.5 million people, averaging 2.77 persons per household.

Table 2 presents estimates of the proportion of households and individuals in Brazil classified as poor in 2023, based on the three poverty lines previously defined. These estimates are calculated using both total per capita household income and per capita household income net of BFP transfers.

Considering total per capita household income, 4.3% of households and 4.6% of individuals in Brazil were below the BFP poverty line. Based on the World Bank's extreme poverty line, 4.1% of households and 4.4% of individuals were classified as extremely poor. Using the World Bank's poverty line for upper-middle-income countries, 21% of households and 25.8% of individuals are considered poor.

Alternatively, using household income net of PBF transfers, the share of poor households under the first two poverty lines increases to 9.1% and 9.2%, respectively, and the proportion of poor individuals to 9.5% and 9.6%, respectively. For the third poverty line, the share of poor households is 23.8% and of poor individuals is 28.9%.

It is important to note that poor households tend to have more members than non-poor households, resulting in a higher percentage of poor individuals compared to poor households, regardless of the income definition used.

Table 2 – Poverty rates under different poverty lines, Brazil, 2023.

Categories		International poverty line - World Bank (R\$ 206.91)	PBF line (R\$ 218.00)	Upper-middle-income countries line - World Bank (R\$ 659.24)
Household income per capita total	Households	4.1 (0.0005)	4.3 (0.0005)	21.0 (0.0011)
	People	4.4 (0.0005)	4.6 (0.0006)	25.8 (0.0011)
Household income per capita net of the PBF	Households	9.1 (0.0008)	9.2 (0.0008)	23.8 (0.0011)
	People	9.5 (0.0008)	9.6 (0.0008)	28.9 (0.0012)

Source: PNADC – IBGE, 2023.

Note: Proportion of poor people and households under the three poverty lines, considering two distributions of per capita household income: total and net of the resources of PBF. Brazil, 2023.

Source: PNADC – IBGE, 2023.

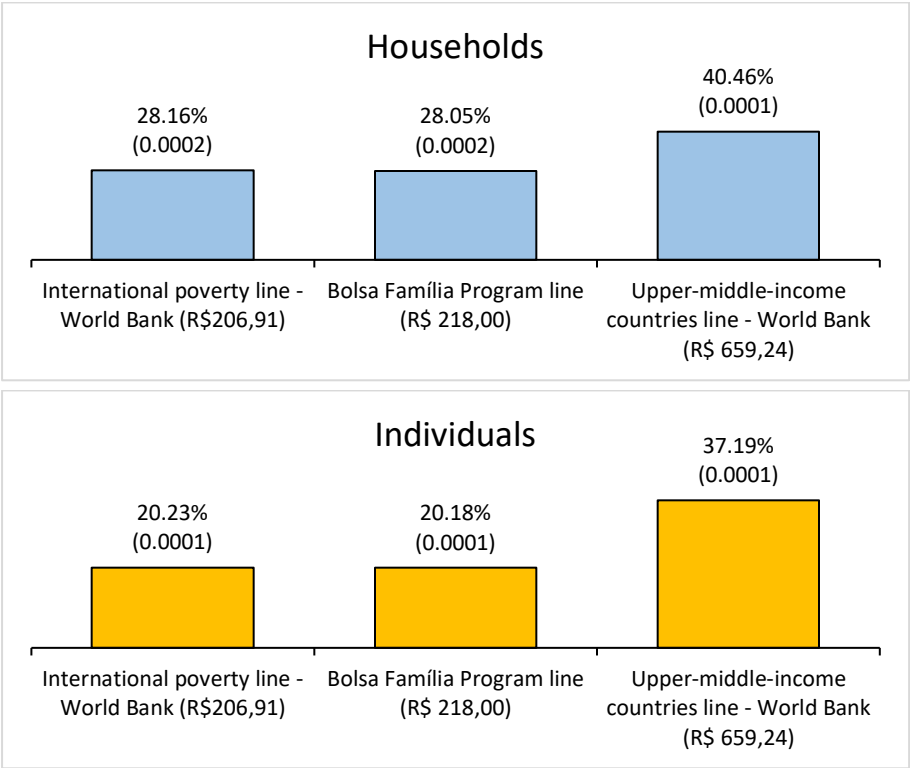
In 2023, nearly a fifth of Brazilian households (18.9%) reported receiving program resources, encompassing 23.8% of the country's population.

Figure 2 presents estimates of exclusion errors, while Figure 3 highlights coverage statistics in the PBF for the three previously defined poverty lines. For the first two lines, coverage and exclusion errors stem from failures in program implementation, whereas for the third line, errors arise due to flaws in program design. These estimates consider both households and individuals. To assess exclusion errors, all people in households classified as poor are counted as poor, and all individuals in beneficiary households are considered recipients. The analysis uses per capita household income, excluding PBF benefits.

As a result of this analysis, in 2023, 28.1% of households meeting the program's eligibility criteria did not receive benefits. Using the World Bank's poverty line for upper-middle-income countries, the analysis reveals that exclusion errors increased to 40.46%. When focusing on individuals within these households, exclusion errors for the two poverty lines were 20.18% and 37.19%, respectively. As discussed earlier, errors are lower among

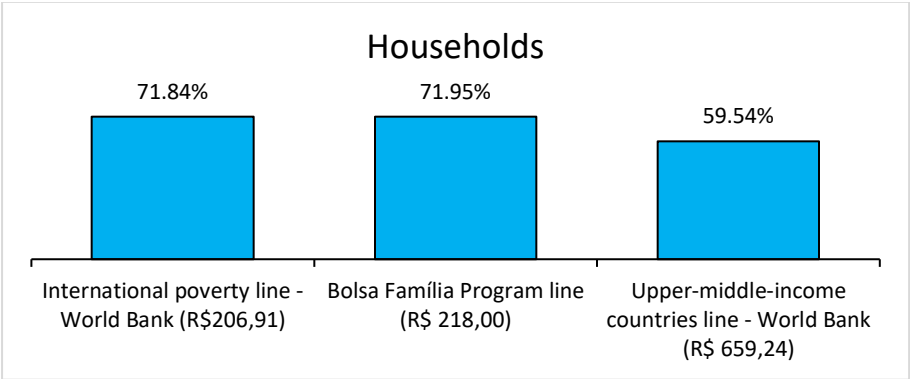
individuals because beneficiary poor households often contain more residents than non-beneficiary poor households. Figure 3 illustrates program coverage, which is the inverse of exclusion errors. Results related to the World Bank's extreme poverty line closely align with findings from the PBF eligibility line.

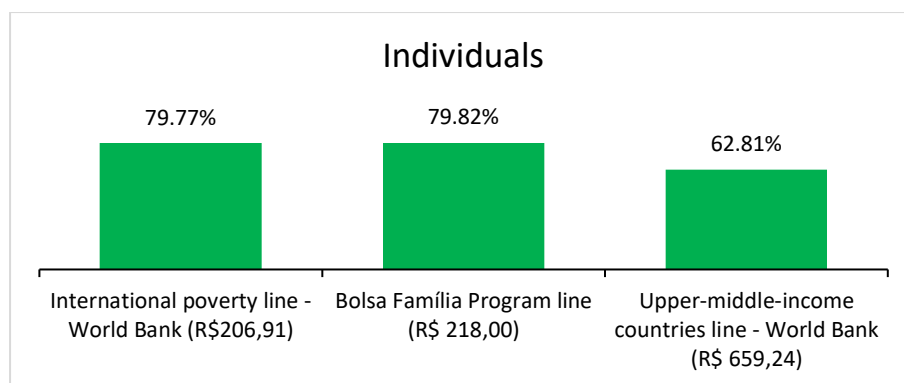
Figure 2 – Exclusion Errors in PBF. Households and Individuals. Brazil, 2023



Source: PNADC – IBGE, 2023.

Figure 3 – Coverage in PBF. Households and Individuals. Brazil, 2023





Source: PNADC – IBGE, 2023.

Figure 4 illustrates how PBF coverage changes across deciles of per capita household income distribution. Coverage decreases sharply as income rises, emphasizing the program's strong focus on the poorest households and individuals. Coverage in the poorest decile reaches 72.2% for households and 79.7% for individuals, slightly higher than the program's coverage for the official PBF poverty line at 71.9% for households and 79.8% for individuals. This similarity exists because the income threshold separating the first decile from the remaining 90% of the distribution stands at R\$ 226.45, which is only marginally above the poverty line of R\$ 218.00 used in the PBF.

Figure 4 – PBF Coverage by Deciles of Per Capita Household Income Distribution. Households and Individuals. Brazil, 2023

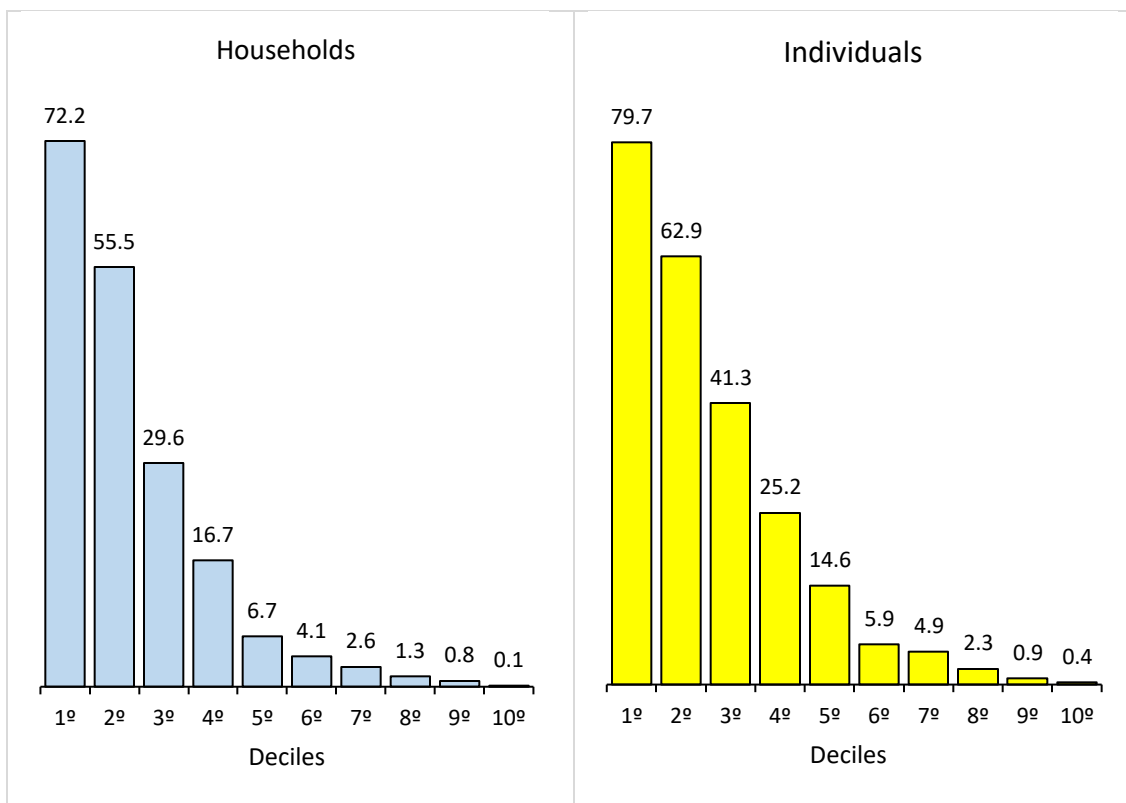
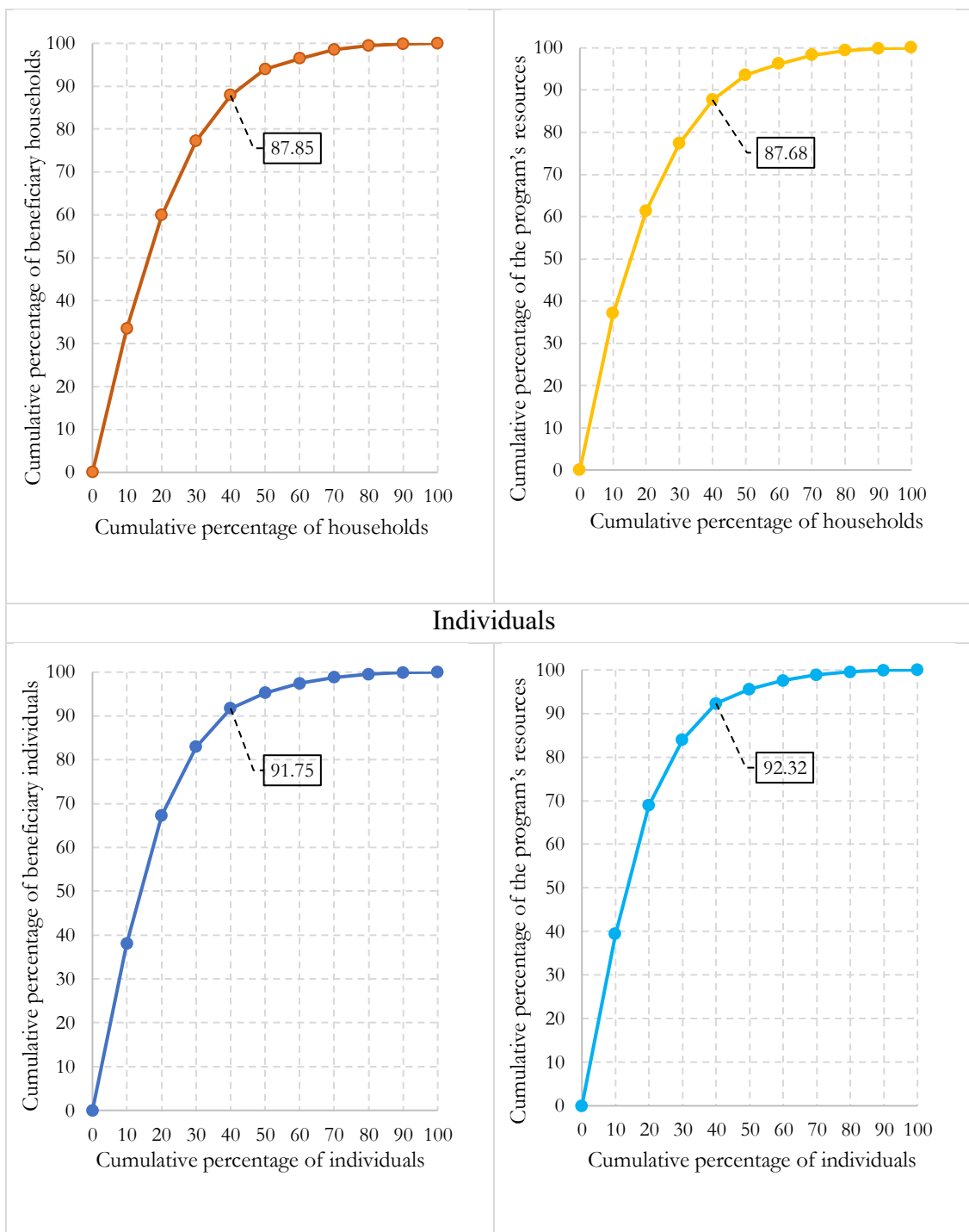


Figure 5 reveals the concentration curves of the beneficiaries and resources of the PBF, using both households and individuals as units of analysis to provide a comprehensive view of the program's focus.

The analysis shows that 87.85% of beneficiary households and 87.68% of program resources are concentrated within the country's poorest 40% of households. Similarly, when focusing on individuals, 91.75% of beneficiaries and 92.32% of program resources are allocated to the country's poorest 40% of individuals

Figure 5 – Concentration curves of beneficiaries and resources of the PBF. Households and People. Brazil, 2023

Households



Exclusion Errors and Intersectionality in the PBF

Table 3 compares general characteristics between poor households receiving PBF and those excluded from the program. The "Diff" columns present the differences between the BF and Non-BF groups. The analysis confirms that all these differences hold statistical significance at a 1% level.

Table 3 – Comparison of mean general characteristics between the two groups (poor households with PBF and poor households without PBF) Brazil, 2023.

Characteristics	International poverty line - World Bank (R\$206.91)			Bolsa Família Program line (R\$ 218.00)			Upper-middle-income countries line - World Bank (R\$ 659.24)		
	PBF	Non-PBF	Diff.	PBF	Non-PBF	Diff.	PBF	Non-PBF	Diff.
Women (HH)*	70.5%	50.7%	19.8	70.5%	50.7%	19.8	66.3%	55.7%	10.6
Rural**	31.3%	15.8%	15.5	31.3%	15.9%	15.4	27.2%	15.1%	12.1
Black (HH)*	78.3%	63.5%	14.8	78.2%	63.5%	14.7	77.6%	66.7%	10.8
North/Northeast**	73.3%	47.5%	25.8	73.2%	47.6%	25.6	67.1%	46.2%	20.9
Education level (HH)*	7.7	8.4	-0.7	7.7	8.4	-0.7	8.0	8.5	-0.5
Number of children**	1.5	0.6	1.0	1.5	0.6	1.0	1.6	1.1	0.5
Average age (HH)*	39.7	46.4	-6.7	39.7	46.4	-6.7	40.0	45.0	-5.0

*Characteristics of the household head (HH). **Characteristics of the household.

Note: All these differences (Diff.) hold statistical significance at a 1% level. Number of observations: 15,170 for the *International poverty line – World Bank* (R\$ 206.91); 15,281 for the *Bolsa Família Program line* (R\$ 218.00); and 33,730 for the *Upper-middle-income countries line – World Bank* (R\$ 659.24).

Again, the results for the first two poverty lines are nearly identical, so this analysis will focus on the poverty line of the PBF. Women head most poor beneficiary households (70.5%), with 78.2% being led by Black individuals. These households are concentrated in the poorest regions of the country—North and Northeast (73.2%)—and show a higher representation in rural areas (31.3%) compared to the total population of households (12.2%). They are also characterized by younger household heads (39.7 years), lower educational attainment (7.7 years), and a higher number of children (1.5). These findings highlight the alignment of beneficiary households with the priority groups targeted during the program’s design, which specifically addresses the characteristics of poor households.

In contrast, exclusion errors, referring to poor households that do not receive program benefits, reveal less association with priority groups, being more aligned with what is observed for the national average or for the non-poor population. In these households, 50.7% are headed by women, only 15.9% are located in rural areas, 47.6% live in the North and Northeast regions (the poorest in the country), and 63.5% are headed by Black individuals. Additionally, these households have fewer children and household heads with more years of schooling and who are older compared to beneficiary households.

Thus, the differences between PBF and non-PBF households are substantial across several dimensions. Regarding regional distribution, the concentration of beneficiaries is 25.6 percentage points higher than that of non-beneficiaries in the country's poorest regions (North and Northeast). The proportion of households headed by women is also notably higher among beneficiaries (+19.8 p.p.), as is the proportion of households located in rural areas (+15.4 p.p.) and the proportion of households headed by Black individuals (+14.7 p.p.). Differences are also observed in the average age of the reference person (-6.7 years), years of schooling (-0.7 year), and the average number of children in the household (+1).

The data presented in Table 4 make it clear how the characteristics of non-beneficiary poor households ("Poor Households Non-PBF" column) resemble those of the total household population ("Total Households" column) more than the poor household population ("Poor Households" column).

The comparison of key indicators reveals that the profile of non-beneficiary poor households is consistently closer to that of the total household population than to the overall poor household population. In terms of gender, the share of households headed by women is identical between non-beneficiary poor households and the total population (both 50.7%), while it is significantly higher among poor households overall (66.5%). The same pattern appears in rural residence, where non-beneficiary poor households show a rate of 15.9%, only slightly above the 12.2% observed for the total population and far below the 26.8% recorded for poor households. Regional distribution also mirrors this proximity: 47.6% of non-beneficiary poor households are in the North and Northeast, almost the same as the 46.2% for the total population, compared to 64.6% for poor households as a whole.

A similar tendency is seen in racial composition, with 63.5% of non-beneficiary poor households headed by Black individuals — slightly higher than the national average of 56.6%, but still much closer to it than to the 72.2% found among poor households.

Overall, these results demonstrate that non-beneficiary poor households share more characteristics with the average Brazilian household than with the country's poor household population, indicating that their socio-demographic profile is less aligned with the priority groups targeted by the Bolsa Família Program.

Based on this data, Brazil shows no clear evidence that individuals with intersecting vulnerabilities are more likely to experience exclusion errors. However, this issue warrants

deeper investigation using an analytical framework that considers interactions between variables influencing exclusion. Logit models offer an effective tool for this type of analysis.

Table 4 – Comparison of general characteristics. Total households, poor households, and poor non-BF beneficiary households. Brazil, 2023.

Characteristics*		Total Households	International poverty line World Bank (R\$206.91)		PBF line (R\$ 218.00)		Upper-middle-income countries line World Bank (R\$ 659.24)	
			Poor Households	Poor Households Non- PBF	Poor Households	Poor Households Non-PBF	Poor Households	Poor Households Non-PBF
Gender	Men*	48.%	35.1%	49.3%	35.1%	49.3%	38.0%	44.3%
	Women*	51.7%	64.9%	50.7%	64.9%	50.7%	62.0%	55.7%
	Diff.	-3.5	-29.9	-1.5	-29.8	-1.4	-24.0	-11.4
Area	Rural**	12.2%	26.9%	15.8%	27.0%	15.8%	22.3%	15.1%
	Urban**	87.8%	73.1%	84.2%	73.1%	84.2%	77.7%	84.9%
	Diff.	-75.6	-46.1	-68.4	-46.1	-68.3	-55.3	-69.7
Race	Black*	56.6%	74.1%	63.5%	74.1%	63.5%	73.2%	66.7%
	Non-Black*	43.5%	25.9%	36.5%	25.9%	36.5%	26.8%	33.3%
	Diff.	13.1	48.3	27.0	48.2	27.0	46.4	33.5
Region	North/Northeast**	34.0%	66.0%	47.5%	66.0%	47.6%	58.7%	46.2%
	Southeast/South/Center-West**	68.0%	34.0%	52.5%	34.0%	52.4%	41.4%	53.8%
	Diff.	-34.0	32.1	-4.9	32.1	-4.7	17.3	-7.6

*Characteristics of the household head. **Characteristics of the household.

Note: All these differences (Diff.) hold statistical significance at a 1% level. Number of observations: 139,014 for *total households*; 15,170 for the *International poverty line – World Bank* (R\$ 206.91); 15,281 for the *Bolsa Família Program line* (R\$ 218.00); and 37,730 for the *Upper-middle-income countries line – World Bank* (R\$ 659.24). Source: PNADC – IBGE, 2023.

Through logit models, it is possible to estimate how changes in a specific variable affect the probability of the exclusion error, controlling for the effects of all the other variables considered in the analysis.

Let the probability of the i -th poor household not being a beneficiary of the PBF be P_i , and be x_{hi} , with, $h = 1, \dots, k$ the determinants of this probability. Then the logit model for the deletion error can be represented by the following equation:

$$P_i = G(\mathbf{x}_i\boldsymbol{\beta}) = \frac{1}{1 + \exp[-\mathbf{x}_i\boldsymbol{\beta}]}$$

com $\mathbf{x}_i\boldsymbol{\beta} = \alpha + \beta_1 x_{1i} + \dots + \beta_k x_{ki}$.

Probability does not follow a simple linear relationship with explanatory variables. While the partial effect of a specific variable on the probability depends on the values of other explanatory variables, understanding the design of β - h is enough to determine whether the effect is positive or negative. Additionally, based on equation (1), the adjusted logit equations help estimate the probability of exclusion error for hypothetical scenarios defined by the explanatory variables.

Using microdata from the 2023 Continuous PNAD, the model focuses on poor households as defined by poverty lines. The dependent binary variable is set to 1 when a poor household does not benefit from the PBF and 0 otherwise. Researchers estimate the model using the maximum likelihood method, applying IBGE's weighting factors for sample expansion and accounting for the complex sample structure.

In the logit models, the following explanatory variables are considered:

1. Women: A binary variable that indicates whether the reference person in the household is female (1) or male (0);
2. Age and Age²: The age of the reference person (measured in tens of years) and their square.
3. Years of schooling: The education level of the head of the household, measured in years of schooling.
4. Black: A binary variable that indicates whether the reference person is black (1) or white (0);

5. North/Northeast Region: A binary variable that indicates whether the household belongs to the North or Northeast regions (1) or the South, Southeast, or Midwest regions (0)
6. Rural Area: A binary variable that indicates whether the household is in a rural area (1) or an urban area (0).
7. Household size: The number of people living in the household
8. Under 18 years old: A binary variable that indicates whether people aged 18 years or younger (1) or not (0) live in the household.

When estimating the logit models, researchers excluded observations without information on any of the variables used⁴. Due to their small sample size and susceptibility to large variance, individuals who identified as yellow (0.4% of the population) were grouped with the white category, and indigenous individuals (0.8% of the population) were grouped with the black category.

Table 5 displays the estimated logit models for the probability of a poor household not benefiting from the PBF, based on three poverty lines. All parameter estimates are statistically significant at a significance level below 1%. The models demonstrate strong fits, with concordant pairs at approximately 79% for the first two lines and 71.6% for the third line.

Table 5 – Estimated logit models for the probability of a poor household not being a beneficiary of the PBF, considering three different poverty lines. Brazil, 2023

Covariates	Poverty line 1: R\$206.91		Poverty line 2: R\$ 218.00		Poverty line 3: R\$ 659.24	
	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error
Intercept	2.53	0,299	2.68	0,313	10.76	0,1703
Women	-0.82	0,065	-0.82	0,066	-0.51	0,034
Age	-1.19	0,125	-1.20	0,126	-0.52	0,069
Age ²	0.16	0,014	0.16	0,014	0.09	0,008
Years of schooling	0.08	0,008	0.08	0,008	0.07	0,004
Black	-0.27	0,071	-0.27	0,071	-0.28	0,039
Household size	-0.20	0,033	-0.20	0,032	-0.04	0,014

⁴ Number of excluded observations: 212 for the *International poverty line* – World Bank (R\$ 206.91); 212 for the *Bolsa Familia Program line* (R\$ 218.00); and 288 for the *Upper-middle-income countries line* – World Bank (R\$ 659.24).

North/Northeast Region	-0.60	0,069	-0.60	0,069	-0.71	0,037
Rural Area	-0.54	0,065	-0.55	0,066	-0.53	0,037
Under 18 years old	-0.93	0,094	-0.91	0,094	-0.65	0,048
Number of observations	15,281		15,170		37,330	
Percent Concordant	79.0		79.1		71.6	

Intersectionality examines how various forms of inequality and oppression, such as race and gender, overlap and interact, creating unique experiences of discrimination or deprivation.

As previously explained, while the effect of a specific variable on the probability of exclusion error depends on the values of other explanatory variables in the model, the direction of the effect remains consistent with the estimated parameter's sign. The estimates in Table 5 do not support the hypothesis of that intersectional vulnerabilities are more likely to affect PBF exclusion errors. Instead, those results reveal that households led by women, Black individuals, people with limited education, younger heads of households, or those located in the poorest regions, rural areas, or with many residents, especially minors, face a lower likelihood of being excluded.

The adjusted logit equations, outlined in expression (1), allows us to estimate the probability of food insecurity within households based on various explanatory variables. Using the coefficients from Table 5 for the PBF's poverty line of R\$ 218.00, we can demonstrate this. Let us consider a household with a per capita income below R\$ 218.00, composed of five people, including minors, led by a 50-year-old Black woman with four years of schooling, and situated in a rural area of the North or Northeast regions. In 2023, the estimated probability of exclusion error for such a household stood at 4%. By changing only the head of the household's sex and race to a white man, while keeping other characteristics the same, the probability of exclusion error rises to 11%.

Always starting from the original scenario, the probability of exclusion error, which stands at 4%, increases to 7% if the region shifts to the Southeast, South, or Midwest. It rises to 9.4% if the household includes no minors, climbs to 6.7% if the household moves from a rural to an urban area, increases to 5.9% if the number of household members drops to three, decreases to 3.5% if the reference person's age changes to 30 years instead of 50, and rises to 6.8% if the reference person's education level increases to 11 years of schooling.

Let's now consider a household earning less than R\$ 218.00 per capita, consisting of three members with no minors, led by a 55-year-old white man with 11 years of education, and located in an urban area of the Southeast, South, or Midwest. In 2023, this household had a 76.4% probability of exclusion error. If only the sex and race of the head of household changes to a Black woman, while all other factors remain constant, the probability of exclusion error drops to 52%.

Starting again from the same scenario, the 76.4% exclusion error probability falls to 64% if the region changes to the North or Northeast. It drops to 56.5% if the household includes a minor, reduces to 65.2% if the household moves to a rural area, decreases to 68.3% if the household size increases to five members, declines to 71.9% if the reference person's age changes to 50 instead of 55 years, and falls to 64.8% if the reference person's education level drops to 11 years of schooling.

The combined results from this research support that PBF exclusion errors are not compounded by intersectional vulnerabilities. Many households below the poverty line but not receiving benefits may only experience temporary poverty. To explore this further, we estimate the probability of a household being poor using the same covariates as for exclusion errors. The results appear in Table 6.

All parameter estimates maintain statistical significance at a level below 1%, and the models demonstrate strong fits. Concordant pairs reach approximately 81.2% for the first two poverty lines and 84% for the third line.

Table 6 – Estimated logit models for the probability of a household being poor, considering three different poverty lines. Brasil, 2023

Covariates	Poverty line 1: R\$206.91		Poverty line 2: R\$ 218.00		Poverty line 3: R\$ 659.24	
	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error
Intercept	-1.99	0.143	-1.97	0.142	-1.04	0.100
Women	0.69	0.028	0.69	0.028	0.60	0.021
Age	0.63	0.061	0.62	0.061	0.29	0.040
Age ²	-0.12	0.007	-0.11	0.007	-0.08	0.004
Years of schooling	-0.14	0.004	-0.14	0.004	-0.18	0.003
Non-White	0.25	0.034	0.24	0.033	0.34	0.024
Household size	-0.34	0.016	-0.33	0.016	0.10	0.010

North/Northeast	1.11	0.033	1.11	0.033	1.11	0.025
Rural	0.54	0.031	0.54	0.031	0.46	0.027
Under 18 years old	0.89	0.036	0.89	0.036	1.13	0.027
Number of observations	139,014		139,014		139,014	
Percent Concordante	81.2		81.2		84	

Most coefficients, apart from "household size," show the opposite sign compared to the probability of exclusion errors. For a household in Scenario 1, characterized by five residents, the presence of a minor, a Black woman as the head (aged 50 with four years of schooling), and located in rural areas of the North or Northeast regions, the probability of poverty is 37.9% under the PBF poverty line and 86.9% under the World Bank poverty line for upper-middle-income countries.

Conversely, Scenario 2 represents a household with three people, no minor resident, a white man as the head (aged 55 with 11 years of schooling), and situated in urban areas of the Southeast, South, or Midwest regions. This household has a poverty probability of 1% under the PBF poverty line and 3.1% under the World Bank poverty line for upper-middle-income countries. In essence, households with Scenario 2 characteristics are far less likely to fall into poverty. However, qualitative findings highlight that certain vulnerabilities—such as those experienced by Indigenous families, single-person households, and people living in informal settlements—may not be fully captured in this probabilistic model. While quantitative analysis identifies low poverty risk for profiles similar to Scenario 2, interviews and focus groups revealed that sudden income shocks, lack of documentation, or exclusionary administrative practices can still place such households at risk of social and economic insecurity. This underscores the importance of complementing statistical models with lived experiences to account for intersectional dimensions that remain “invisible” in the data.

5.3 Factors Contributing to Exclusion Errors

Devereux et al. (2017) classify exclusion errors in social protection programs into two main categories: design errors and implementation errors. Design errors happen when eligibility rules fail to capture poverty or vulnerability, excluding poor individuals or households. Implementation errors arise when outreach, enrollment, or data quality issues

prevent eligible individuals or households from accessing the program. Table 7 outlines these distinctions:

Table 7. Typology of Inclusion and Exclusion Errors

	Implementation (Eligibility Criteria)	Design (Poverty)
Inclusion Error	Beneficiary, not eligible	Beneficiary, not poor
Exclusion Error	Not a beneficiary, but eligible	Not a beneficiary, but poor

Source: Adapted from Devereux et al. (2017).

The following subsections analyze these two categories in the context of PBF, based on qualitative findings.

Design Factors: Targeting Tools, Eligibility Rules, and Program Structure

A key design flaw in PBF is its reliance on per capita household income as the sole eligibility criterion. This approach overlooks structural vulnerabilities, such as high health expenses, disabilities, or housing instability. Small income changes—like a family member taking temporary formal work—often lead to benefit cuts, even when the family remains in need. Several focus group participants shared their frustration when benefits were cut due to small or temporary income increases. One woman explained: *“It was my son who got a job, not me. But because of that, they cut my PBF. He doesn’t even help with the bills.”* A researcher echoed this concern, noting that *“in a household with a person with a chronic disease, medical costs can be high, and a slight income increase may not reflect real improvement.”*

The program restricts new enrollments for single-person households in municipalities where their share exceeds 16%. This policy aims to prevent strategic fragmentation and fraud but unintentionally excludes vulnerable individuals, including elderly people living alone, trans women, homeless persons, and migrants—groups often found in this household category. A federal manager explained: *“We saw a huge increase in single-person households after Auxilio Emergencial. Many of them were legitimate, but we also had family fragmentation. The challenge now is not excluding those who truly need help.”*

In urban centers, high rent or caregiving responsibilities often disqualify families who still lack financial independence. In rural or Indigenous communities, subsistence lifestyles obscure poverty in reported income, while geographical and cultural barriers hinder accurate registration. Cultural barriers may include mistrust in the State, fear of being judged, or not understanding bureaucratic processes. As one municipal worker noted, *“The relationship with the State is marked by decades of absence or repression. Even installing a school or a*

health clinic requires long negotiations.” A municipal social worker shared: “In Quilombola and riverine areas, many people live off fishing and agriculture. Their income seems low on paper, but it doesn’t capture the vulnerability and isolation they face. Many don’t even try to register.”

Structural barriers persist for homeless individuals, migrants, and nomadic populations, particularly due to the requirement of a fixed address, which limits their ability to meet documentation and residency criteria. According to a CRAS worker: *“We have people sleeping in shelters or even on the streets. Even if they have the right to the benefit, it’s a nightmare to enter their information into the system without a valid CEP.”*

Implementation Factors: Data Quality, Outreach, and Operational Capacity

Limitations in available resources, especially at CRAS centers, significantly contribute to exclusion errors in PBF. Many centers struggle with insufficient staffing, outdated infrastructure, and inadequate training, which hampers their ability to actively reach out to families, process enrollments efficiently, and follow up consistently with vulnerable households. Budget allocations often prioritize benefit payments, which leads to uneven service delivery capacity across regions. These disparities depend on local financial conditions, administrative capabilities, and governance practices. As one CRAS technician explained, *“We’re four workers for an area with thousands of families. There are days when we can’t even answer all the phone calls, let alone go out and register new families.”*

Territorial inequalities exacerbate these challenges. Families in Amazonian, rural, and riverine regions often struggle with long travel distances, poor transportation options, and inadequate service infrastructure. In urban peripheries, violence and criminal groups further limit access to CRAS centers and hinder outreach efforts. In some neighborhoods, social workers cannot enter without prior negotiation, or must cancel visits due to safety risks. As one municipal manager explained, *“There are areas where we can’t go without authorization from the local faction. If there’s an operation or conflict, we have to suspend services for days.”* A state manager described the situation: *“Sometimes you need a boat to get to a community, and we don’t have fuel. Or you arrive and there’s no signal to update the system. That’s daily reality for our teams.”*

Registering or updating information in CadÚnico often requires families to visit in person multiple times. Changes in household composition, address updates, or periodic

verifications frequently prompt these visits. For families living in poverty, these processes impose significant costs, including transportation expenses, childcare challenges, and lost income due to missed work. One beneficiary recounted: *“I had to go three times to update my info. Every time I had to pay for the bus and leave my kids with a neighbor. It’s too much.”*

Gaps in information and fear of losing benefits often exclude families from the program. Many do not understand the eligibility rules or realize they must update their information regularly. This confusion creates insecurity, leading some to avoid reporting changes or to depend on intermediaries who charge fees for handling registrations. As a local manager explained, *“People say ‘if I tell the truth, they’ll cut my benefit.’ So they prefer not to update. But that leads to even bigger problems.”*

The fragmentation of data and inconsistent integration across government systems—such as CadÚnico, labor, health, and education databases—hinder the timely identification of eligible households and complicate verification processes. Currently, eligibility verification relies on periodic self-reported updates through CRAS centers, which are cross-checked against administrative records such as formal employment registries and social security data. However, the absence of real-time income data poses significant challenges for households experiencing frequent income volatility. As one researcher noted, *“If a person loses their job today, it may take months for that to show in the system. Meanwhile, they remain excluded.”*

Finally, municipalities vary widely in the quality of services they provide. Staffing, infrastructure, and local governance create inconsistent experiences for users. Some CRAS centers welcome and support visitors, while others neglect them, mistreat them, or impose discretionary restrictions. One beneficiary shared: *“In one CRAS, they treat you like family. In another, they shout at you and make you come back three times. It depends a lot on who’s attending.”*

Together, these operational bottlenecks worsen social and territorial inequalities, especially in vulnerable or under-resourced regions. Resolving them remains crucial for strengthening the program’s ability to include everyone.

5.4 Interventions to Address Exclusion Errors

Although challenges persist, several interventions in program design and implementation directly address exclusion errors in PBF.

Design Interventions: Targeting Tools, Geographical Targeting, and Others

Recent reforms directly addressed the limitations in eligibility criteria by introducing more nuanced targeting mechanisms. Changes in 2023 fine-tuned benefit amounts, using family composition and regional cost of living to better reflect vulnerability. Program administrators strengthened the integration of health, education, and social assistance data to find vulnerable families not yet registered. Federal initiatives expanded CadUnico to underserved territories through local government partnerships. These strategies included:

- Adjusting eligibility parameters to accommodate income volatility and atypical expenses (e.g., health costs);
- Using georeferenced poverty maps to locate families in areas with low registration rates;
- Authorizing use of collective addresses (e.g., shelters, community centers) for populations without fixed residences;
- Improving communication of benefit rules and eligibility conditions via public campaigns and local leaders;
- Incorporating dynamic registry tools to facilitate the return of families recently excluded due to temporary income spikes.

By linking data across education, health, and social assistance systems, administrators can proactively identify families at risk of exclusion. Real-time signals—such as a child dropping out of school or a lapse in health service use—serve as early warning indicators that a household may be experiencing increased vulnerability or disconnection from public services. This allows for more dynamic and responsive targeting, particularly in cases where income alone may not reflect a family’s situation. An expert noted: *“The integration of administrative data has helped flag families that were falling through the cracks. We can now act faster when a child drops out of school or a family stops accessing health services.”*

Implementation Interventions: Outreach, Data, and Enrollment

Municipalities have developed creative and often low-cost solutions to implementation challenges. Some of those that the research team identified during data collection, included:

- Mobile and itinerant teams visited remote rural communities, Indigenous territories, and riverine populations using tablets and offline registration tools. Teams relied on

boats, motorcycles, and partnerships with health agents to manage logistics in Northern Brazil.

- Community events and joint campaigns brought registration, vaccinations, documentation, and PBF guidance together in one place at monthly “citizen days” coordinated by CRAS, health centers, and schools. Cities like Recife and Altamira tripled new registrations within weeks through these efforts.
- Cities opened decentralized service points by creating CRAS annexes in peripheral neighborhoods or partnering with local NGOs to offer registration services closer to beneficiaries. Faith-based organizations in Manaus hosted registration booths in community centers to increase accessibility.
- Technology adoption empowered beneficiaries to check their status, update information, or request support through smartphone apps and online systems. The Meu CadÚnico app gained over 5 million downloads in 2023, easing pressure on CRAS and improving transparency.

These local adaptations reflect how service design must consider not only geographic but also temporal barriers, such as rigid opening hours that exclude working families. One municipal manager stated: *“We used to have long lines outside CRAS. After we started holding Saturday registration days with school support, we reached many who couldn’t attend during work hours.”* This example highlights how seemingly minor administrative changes, such as expanding hours or partnering with schools, can have an outsized impact on access, especially for informal workers who cannot afford to miss weekday shifts. It also underscores the importance of municipal-level innovation in improving coverage and equity within national programs.

Specific Interventions for Intersectional Vulnerabilities

The research uncovered several promising practices focused on groups experiencing overlapping vulnerabilities, such as homelessness, indigeneity, displacement, caregiving responsibilities, and chronic illness. These intersectional experiences often escape detection in administrative datasets or household surveys, underscoring the importance of qualitative and mixed-methods research to identify barriers that go beyond income, race, or gender alone. The examples below reflect how frontline workers and local governments have

responded to context-specific challenges, often through locally developed, organic innovations. While these initiatives are not yet fully institutionalized, they highlight scalable opportunities for more systematic inclusion within the national program.

- Homeless populations: Municipalities expanded Centro POP units, accepted shelter addresses, and issued documentation to reduce exclusion. São Paulo’s mobile social assistance teams conducted 7,000 outreach visits in 2023, serving as a best practice example. Curitiba introduced digital lockers for document storage and sent SMS alerts for registration appointments.
- Indigenous and Quilombola communities: Community leaders engaged actively, bilingual Indigenous workers joined teams, and materials were adapted culturally, including translations into native languages. Pará used riverboats and Bahia deployed mobile CRAS teams to improve outreach, supported by local health posts.
- Migrants and refugees: CRAS units in border municipalities like Boa Vista (RR) partnered with UNHCR to issue temporary documentation and refer families to CadUnico. Roraima piloted humanitarian shelters as fixed registration hubs.
- Women and caregivers: Municipalities organized support groups for single mothers, pregnant women, and domestic violence survivors. Programs such as Primeiro Afeto (in Pernambuco) and Mãe Paulistana (in São Paulo) provided coordinated services and simplified registration processes.
- People with disabilities and chronic illnesses: Municipal workers conducted home visits, relaxed documentation rules, and adjusted CRAS schedules to accommodate mobility or cognitive barriers. Recife created a priority line for caretakers of children with disabilities.

A CRAS manager reflected: *“We used to treat everyone the same. But real equity comes from recognizing differences. When we started adapting our approach to each group, we saw real change.”* These experiences prove that tailoring PBF’s delivery to the specific contexts and needs of diverse populations is both practical and necessary for ensuring equitable access to social protection. Systematizing these approaches could help scale what is currently working organically, ensuring that intersectional vulnerabilities are addressed more consistently across municipalities.

6. Conclusions

6.1 Purpose and Methodology

This study closely examined exclusion errors within Brazil's PBF, highlighting how institutional, operational, and contextual barriers hinder access for eligible families. By applying an intersectional perspective, the research prioritized groups disproportionately affected by poverty and exclusion, such as Black, Indigenous, Quilombola, rural, homeless, and migrant populations. Researchers gathered data through 22 semi-structured interviews with federal and municipal managers, CRAS technicians, researchers, and civil society representatives. Additionally, six focus groups involving current or former PBF beneficiaries were conducted across six regions in Brazil. Using NVivo software for analysis, the team blended predefined and emerging themes to uncover key insights effectively.

6.2 Key Insights and Broader Significance

The findings highlight PBF's effectiveness in targeting the poor, particularly when compared to international benchmarks. The program concentrates benefits among the lowest income deciles, relies on a robust national registry (CadÚnico), and enjoys broad legitimacy among its users. However, important exclusion errors remain unresolved.

Structural and design-related issues such as eligibility criteria based solely on per capita income and the lack of consideration for atypical expenses (e.g., medical costs) create systematic blind spots. Groups like single-person households and other vulnerable groups, like homeless individuals, migrants, and Indigenous families, often struggle to qualify not because they lack need, but because they cannot meet rigid documentation or residency requirements. For example, registering in CadÚnico requires a CPF (taxpayer ID) and proof of address, which many vulnerable people cannot provide. These conditions do not reflect lack of need, but rather the barriers they face in meeting administrative criteria to qualify for benefits.

While these limitations are partially visible in survey and registry data, they do not capture the full picture. Quantitative analysis reveals patterns of inclusion and exclusion based on observable characteristics like income, family composition, gender, race, and location. However, it often misses more complex or intersectional vulnerabilities. Groups such as people with disabilities, LGBTQIA+ individuals, migrants, and Indigenous or riverine communities may remain invisible due to documentation barriers, mobility, or systemic exclusion. Caregiving responsibilities, informal work, and social stigma are also

rarely reflected in administrative data. Qualitative findings help fill these gaps by highlighting lived experiences and how exclusion is shaped not just by eligibility rules but also by people's interactions with the system. These insights reaffirm the importance of combining quantitative analysis with field perspectives to fully understand who is left out and why.

Implementation challenges further complicate access. Chronic underfunding of social assistance infrastructure severely limits outreach, registration, and follow-up efforts. CRAS teams, especially in rural, riverine, and peripheral urban areas, operate under heavy constraints. Territorial inequalities worsen exclusion, as poor infrastructure, lack of public transport, and violence hinder access to services for families and outreach efforts by technicians.

In addition, Brazil's dynamic poverty landscape poses challenges. Income volatility, family instability, and temporary improvements in income frequently lead to benefit suspensions that are not reversed quickly, even when families fall back into poverty. Data lags, fragmented systems, and burdensome documentation requirements deepen these gaps. Uneven service quality and discretionary treatment in local CRAS units further erode trust in public systems.

These insights reinforce that exclusion errors stem from deeper institutional, territorial, and social inequalities rather than technical oversights. While PBF succeeds in many areas, it remains tied to the broader limitations of Brazil's social protection infrastructure. To address these issues, policymakers must align program rules and implementation practices with the realities of those at greatest risk of exclusion. To advance equity, policymakers must not only improve registries and information flows but also incorporate lived experiences from the field and scale locally developed solutions. Ensuring fair access to social protection requires not only better data and systems but also equity-focused policy design and stronger support for frontline teams.

6.3 Remaining Knowledge Gaps and Future Research

This study enhances the understanding of exclusion from the PBF and highlights several knowledge gaps that require further investigation. By combining the insights from household survey data analysis with the qualitative perspectives of program implementers and participants, researchers can refine methodologies and focus on these areas.

- **Listening to Excluded Populations:** While this study engaged beneficiaries and frontline actors, it did not directly represent individuals currently excluded from PBF. Future qualitative efforts should actively involve excluded populations through targeted recruitment strategies such as snowball sampling, peer referrals, and partnerships with community-based organizations.
- **Enhanced Use of Administrative Data:** The analysis uses PNADC survey data to provide a robust cross-sectional profile of exclusion. Future studies should leverage more granular, real-time administrative records to explore exclusion dynamics more deeply—especially regarding single-person households, informal workers, and families with intersecting vulnerabilities.
- **Evaluating Digital Access and Equity:** The growing use of digital tools—including mobile apps and online registration—offers an important innovation in social protection delivery. Researchers need to assess their effectiveness and accessibility among groups with limited internet access, low digital literacy, or mobility constraints.
- **Capturing Temporal Dynamics of Inclusion and Exclusion:** Temporary income fluctuations, informal employment, or changes in family structure often push households in and out of eligibility. Longitudinal approaches—such as administrative panel data or dedicated household panel surveys—can help identify patterns of transitory poverty and inform adaptive program responses.
- **Identifying and Scaling Local Innovations:** Various municipalities and frontline teams have developed creative strategies to address access barriers, including mobile CRAS units, community-based registration campaigns, or intersectoral outreach in rural and underserved areas. Researchers should document and evaluate these practices to support knowledge-sharing and replication.
- By addressing these areas, future research can contribute to a more responsive and equitable PBF while informing broader efforts to strengthen social protection systems in diverse contexts.

7. Actionable Recommendations

The interviews and focus groups emphasize the need for institutional actions, innovative local management, territorial outreach, and communication strategies to tackle exclusion

errors in the PBF. Addressing these errors requires approaches sensitive to the diversity of target populations. Many municipalities across the country already implement these recommendations to varying degrees, adapting lessons learned and established practices over time. These suggestions guide program improvements and provide a foundation for disseminating solutions validated through practical experience.

The study underscores the importance of reducing exclusion errors and improving access to the PBF through actionable recommendations grounded in evidence and local implementation experiences. These proposals respond to fieldwork observations and aim to strengthen institutional practices, minimize territorial inequalities, and include the most vulnerable groups:

- **Expand active outreach strategies** to reach underserved populations. Active outreach strategies play a critical role in this effort. Mobile registration teams, task forces in remote areas, and partnerships with community leaders and civil society organizations have proven effective in reaching underserved populations. In rural and riverine territories, families often face high travel costs, long distances, and a lack of transport to CRAS centers. Expanding decentralized approaches can help eliminate geographic and logistical barriers that contribute to exclusion. While many of these innovations have emerged organically at the local level, they are not yet systematized. Encouraging peer-to-peer learning and technical cooperation among municipalities could help replicate successful strategies and expand their impact.
- **Strengthen the professional capacity and stability of CRAS teams** to improve service quality. The study highlights how the lack of trained and permanent staff undermines consistent guidance and leads to high turnover. Municipalities can address these challenges by hiring civil service professionals, offering ongoing technical training, and creating incentives that retain staff in the same territory. These efforts enhance assistance delivery, build trust with users, and support timely program updates. In addition to formal training, lower-cost alternatives such as peer learning platforms, regional communities of practice, and exchanges between municipalities facing similar challenges can also strengthen frontline capacity in a sustainable and collaborative way.

- **Develop personalized programs and support for specific population groups.** Addressing the needs of specific population groups requires personalized programs and support. Outreach efforts targeted toward pregnant women, LGBTQIA+ youth, and people with disabilities help tackle vulnerabilities often overlooked by standard eligibility criteria. Flexible service hours, simplified documentation procedures, and consideration of atypical expenses—such as caregiving, transportation, or health costs—prevent the exclusion of individuals facing intersectional disadvantages.
- **Modernize CadUnico and integrate it with other public databases** to improve data quality and reduce errors. Enhanced interoperability enhances follow-up with vulnerable families and enables effective responses to dynamic poverty conditions. Municipal teams can use strategies like regular home visits, local cross-checking of information, and administrative records from education, health, and civil registration systems to refine data accuracy.
- **Implement effective communication strategies** to reduce exclusion and misinformation. Effective communication strategies play a key role in reducing exclusion. Community radios, WhatsApp groups, local meetings, and visual materials adapted to regional languages and realities help clarify doubts, combat misinformation, and improve understanding of the link between PBF and the CadUnico. Expanding digital tools must be accompanied by ensuring access for individuals with limited connectivity or digital literacy.
- **Create flexible inclusion mechanisms** for homeless individuals, migrants, and families in extreme vulnerability. Proof of residence, support for securing documentation, and coordination with shelter networks make registration and benefit retention easier. Social service teams should adapt to the unique mobility and documentation challenges of these groups and provide qualified, non-discriminatory assistance.
- **Adapt eligibility criteria to reflect the volatility of income and family composition.** Temporary or informal earnings often fail to reflect actual vulnerabilities. Introducing complementary indicators and fast-track reentry into

the program after temporary ineligibility minimizes unjustified exclusions and ensures continuous protection.

- **Ensure inclusion of single-person households** without compromising program integrity. Single-person households, which have significantly increased in number, also demand special attention. Safeguards against fraud should not create barriers for genuinely vulnerable individuals. Improved data validation mechanisms and local verification can reconcile inclusion goals with program integrity.

These recommendations emphasize the importance of responsive and territorially-sensitive approaches to social protection. While many municipalities have implemented good practices, sustained investment, broader dissemination, and continuous engagement with users and frontline workers are essential to expand and deepen inclusion across Brazil.

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