# Demographic Transitions of the Afro-descendant Population in Ecuador: 2001-2022

Victoria Salinas Castro<sup>1</sup>; InnovaSocial Populations; vsalinas@ipopulations.com

# Abstract

This study examines the demographic dynamics of the Afro-Ecuadorian population using data from the 2001, 2010, and 2022 censuses, focusing on three main areas: fertility, mortality, and migration. Brass and Arriaga methods are used to adjust fertility rates and provide an accurate picture of reproductive trends. The results indicate a progressive decline in the total fertility rate and age-specific fertility, especially among adolescents and women over 30 years old. Mortality shows a notable decrease in infant mortality but a concerning increase in the mortality of young and adult men, attributable to socioeconomic factors. Internal migration reveals complex patterns, with provinces such as Guayas and Pichincha initially attracting the Afro population but experiencing changes in 2022. Esmeraldas continues to be a significant expelling province. Ethnic self-identification and data registration limitations present important challenges, affecting census accuracy. Despite advances in reducing fertility and improving life expectancy, the Afro-Ecuadorian population still faces significant inequalities. This study highlights the need for specific public policies and an inclusive approach to data collection to address ethnic disparities and improve the living conditions of the Afro population in Ecuador.

Keywords: Afro Population, Censuses, Migration, Fertility, Mortality.

# Introduction

The issue of recording information about the Black or Afro-descendant population in national censuses and surveys across Latin America has been a relevant and constantly evolving topic. Studies and documents reveal that efforts have been made to improve the inclusion and representation of the Afro-descendant population in these processes, although challenges remain in the quality and accuracy of the data collected. Several publications address the importance of gathering indicators on Black populations in Latin America and the Caribbean (CEPAL/ACNUDH, 2020; CEPAL/UNFPA, 2020a; Del Popolo, 2001, 2008; Puyana, 2015). Furthermore, work has been done on proposing indicators to monitor the goals of the International Conference on Population and Development in Latin America and the Caribbean, reflecting an interest in improving the measurement and understanding of the situation of the Afro-descendant population in the region (CEPAL, 2020). Despite these advances, challenges remain in accurately

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identifying the Afro-descendant population in censuses and surveys, which can affect the formulation of policies and programs specifically for this group.

The right to information and statistical visibility for Afro-descendant populations has been expressed in various forums over the years in Latin America. In the Declaration of the Regional Conference of the Americas in 2000, States were urged to collect and disseminate data on the situation of groups facing discrimination, including Afrodescendants, and to establish national programs based on existing statistical information. Following the World Conference against Racism, Racial Discrimination, Xenophobia, and Related Intolerance held in Durban (South Africa) in 2001, the Afrodescendant social movement intensified its collective actions for the right to information, promoting debates and forums on this issue at various national and international levels. Regional seminars were held, and the lack of statistical information was raised (i.e., Honduras 2002), urging governments to include ethnic-racial origin in national censuses and other surveys. Since then, various actions have been taken to promote the self-identification of Afro-descendants in censuses and other statistical instruments, such as the 2008 "2010 Censuses and the Inclusion of the Ethnic Approach" seminar organized by CELADE/CEPAL (Del Popolo et al., 2009).

During the First World Summit of Afro-descendants in 2011 held in Honduras, the importance of population censuses for social inclusion was analyzed, and it was agreed to promote the statistical visibility of Afro-descendants as a mechanism to guarantee the right to information. Within the framework of the International Decade for People of African Descent (2013), the United Nations approved an Action Plan that includes activities to promote the inclusion of the Afro-descendant variable in national statistical systems. Additionally, the region's States adopted measures to generate reliable and timely information about Afro-descendant populations, as established in the Montevideo Consensus (2013) on Population and Development and the Regional Agenda for Inclusive Social Development (2019) (CEPAL, 2013, 2020).

# The Concept of Race and Ethnicity

The concept of race and ethnicity has evolved throughout history, influenced by the social and political context of each era. Some authors suggest that the notion of race emerged in the 18th century, although others believe it originated during the European colonization of the Americas (Quijano, 2005). Originally, the term race referred to lineages or common ancestry and was not linked to physical appearance. However, in the 18th and 19th centuries, it acquired biological connotations and became associated with specific physical characteristics, such as skin color, hair texture, and skull shape (Banton, 1977). These physical differences were used to justify domination and unequal treatment of certain social groups (Yudell, 2014; Guimarães, 1999).

During colonization, categories like "Indian," "Black," "White," or "Mestizo" were created to define identities, and the idea of race was fundamental in legitimizing the conquest and the expansion of capitalist Eurocentrism. The social differences derived from colonial structures were codified as racial, ethnic, and national differences, with racism being a visible manifestation of the coloniality of power (Billington et al., 1991; Quijano, 2020).

Although it has been scientifically proven that races do not biologically exist, they remain socially and politically relevant, structuring social relationships and maintaining hierarchies and privileges. This has led to the recognition of race as a social construction relevant to the distribution of power and resources (Guimarães, 1999; Wade, 2011; Yudell, 2014).

In Latin America, ethnic-racial inequalities persist as contemporary mechanisms of exclusion and subordination. Moreover, the concept of ethnicity is discussed as a social construction that arises from the interaction between human groups and relates to contextual and situational identities. Although the terms "ethnicity" and "ethnic" have been used in an exclusionary and discriminatory manner, their importance is recognized for understanding the diversity of identities in Latin America, referring to members who claim a connection through a common origin (Giménez, 2006). In this context, the expression "ethnic-racial" is used to encompass the heterogeneity of identities in the region, considering both phenotypic traits and cultural and territorial aspects in people's self-identification (United Nations & CEPAL, 2011).

#### The Term Afro-descendant in Data

Establishing a clear conceptual position on the language of self-identification is crucial for recognition policies. It is a subjective aspect that reflects identity awareness, a key requirement for the recognition of a collective rights community, as outlined in the ILO Indigenous and Tribal Peoples Convention. Therefore, recognition policies imply an act of justice toward Afro-descendant political identity, affecting how it is reflected in ethnic-racial self-identification questions in censuses and other statistical instruments.

The debate on naming policies in censuses is closely related to political identity. Individual identity is constructed within the context of a social group and can be politicized as a strategy for power and mobilization (Agudelo, 2019). In this sense, Afro-descendant ethnic-racial identity represents a political expression that goes beyond race and enslavement, encompassing cultural, territorial, and national projects (Restrepo, 2004; Torres-Parody & Bolis, 2007).

In some countries, there is ongoing discussion about the difference between being Black and Afro-descendant. The former is often associated with racial identification tied to the history of enslavement, while the latter is linked to a process of decolonization and emancipation (Greene, 2009). This distinction is reflected in the categories used in censuses and other public policy instruments (CEPAL, 2017b).

The inclusion of Afro-descendant self-identification variables in censuses is not just a statistical action but a proposal for political recognition of identity, aimed at consolidating pluri- and multicultural States and expanding citizenship (Agudelo, 2019). This debate has been particularly relevant in countries like Ecuador and Bolivia, where constitutional reforms have directed the State model toward plurinationality (Santacruz et al., 2019).

Despite tensions between national statistical institutes and Afro-descendant organizations, significant progress has been made in identity recognition policies, reflecting the evolving nature of the nation-state project in Latin America (Santacruz et al., 2019).

However, it is important to highlight the main limitations of registering Afrodescendants in censuses and national surveys, including: i) Semantic differences and the subjectivity in defining ethnic belonging, which complicates the estimation of the Afrodescendant population; ii) Underrepresentation in censuses and surveys, particularly in rural areas and in regions where they are a minority; iii) Discrimination and stereotypes can affect how individuals identify themselves, leading to underreporting; iv) A lack of adequate awareness and training for those collecting data can result in errors in identifying the Afro-descendant population; v) The data are often not specific enough to allow for the analysis of subgroups within this population, such as Indigenous Afrodescendants or rural Afro-descendants; vi) Lack of representation in surveys, which makes it difficult to collect data on this population; vii) Migration and mestizaje (racial mixing) have led to a diversification of the Afro-descendant population, complicating their identification; viii) Discriminatory everyday representations that limit selfidentification within this population (Bodnar, 2005; United Nations & CEPAL, 2011; Valdivia, 2011).

Although this document does not intend to analyze these elements in depth, it aims to trace the trajectory of the Afro, mulatto, and Black populations (categories used in Ecuador), which will hereinafter be referred to as Afro, in the last three census rounds of 2001, 2010, and 2022, and how this is expressed according to the discussions developed in the previous paragraphs.

In light of this reality, this study seeks to understand the demographic dynamics of the Afro population and its transitions regarding fertility, mortality, and migration. To this end, the analysis of the last three censuses conducted in Ecuador will be undertaken, noting that they all include the same self-identification question. In 2023, the VIII Population Census and the VII Housing Census, hereinafter referred to as the 2022 Census, were completed.

# **Data and Methodology**

This research is framed within a longitudinal, descriptive, and comparative study focused on the Afro-descendant population. Using data from the 2001, 2010, and 2022 censuses, its main objective is to describe and analyze the trends and changes in fertility, mortality, and migration of this population over more than two decades.

The descriptive aspect of the study focuses on providing a detailed overview of the specific demographic characteristics of the Afro-Ecuadorian population at each point in time. To study fertility, the analysis includes the total fertility rate, age-specific fertility rate, and changes in reproductive structure. Regarding mortality, the analysis covers overall and age-specific mortality rates, as well as life expectancy at birth. In terms of migration, the study examines internal migration patterns, including emigration and immigration rates, and their impacts on the population structure.

The longitudinal component involves tracking over the three censuses, allowing for the identification of trends and determining how demographic indicators have evolved, as well as evaluating significant changes. The comparative aspect of the study enables a contrast of data between the three census periods, facilitating the analysis of differences and similarities in demographic indicators and determining the possible factors behind the observed changes in the Afro-descendant population.

# Results

#### Population Structure of Afro-Ecuadorians

Since 2001, Ecuador's population has been disaggregated by ethnicity. In 2001, Ecuador had a total population of 12.85 million, of which the Indigenous population accounted for 7%, the Afro-descendant population nearly 5%, and the Mestizo population 88%. By 2010, the total population had risen to 14.49 million, and a new ethnic group, the Montubio, was included, comprising 7%, alongside the Indigenous and Afro-descendant populations, while the Mestizo population made up 78%. In the 2022 census, Ecuador's population reached 16.93 million, with 7% being Indigenous, 5% Afro-descendant (returning to its 2001 proportion), 8% Montubio, and 80% Mestizo. The analysis of census data through population pyramids reveals significant demographic trends and changes in Ecuador's ethnic structure (see Figure 1).

The total population has grown between 2001 and 2022, with changes in the ethnic distribution. Mestizos remain the largest ethnic group, Indigenous populations remain stable, while Afro-descendants saw an increase between 2001 and 2010, followed by a decline between 2010 and 2022, as clearly shown in Figure 1d. The Montubio group has maintained a stable proportion. The population pyramids indicate a trend towards aging, especially within the Mestizo population, and this trend is also present for Montubios. The Indigenous and Afro-Ecuadorian populations have a broader base, indicating a higher proportion of young people. The narrowing of the base of the pyramid suggests a reduction in fertility rates among most ethnic groups. The increase in the older population suggests improvements in life expectancy, while changes in the proportions of some ethnic groups may be influenced by internal and external migration patterns.



Figure 1. Population of Ecuador by ethnicity in 2001, 2010, and 2022, and Afrodescendant population as a percentage of the total Ecuadorian population (%).



Source: 2001, 2010, and 2022 Censuses. Prepared by: Author.

Returning to Figure 1d, where there is a two percentage point (pp) increase, a considerable rise in the Afro-descendant population in 2010 compared to 2001, followed by a reduction in 2022 (by 2 pp), this in relation to the total population. The growth in 2010 may be related to a process of participation and effective

communication that took place prior to the 2010 Census, such as the creation in 2007 of the National Commission of Statistics of Indigenous, Afro-Ecuadorian, and Montubio Peoples (CONEPIA) and significant participation from Indigenous, Afro-descendant, and Montubio movements and their organizations (Amores L. & Sandoval, 2012; Chisaguano, 2006).

Figure 2 shows the structure of the Afro-descendant population. In 2001, the wide base of the pyramid indicates a high birth rate and a predominantly young population (0-14 years), with a sharp decrease in older age groups, suggesting a lower life expectancy. By 2010, the base is less wide, signaling a reduction in fertility and an increase in the proportion of people in the middle age group (15-49 years), suggesting economic stability and lower migration rates. In 2022, the base continues to narrow, reflecting a continuous decline in fertility and an increase in the population over 50 years old, indicating, to some extent, improvements in life expectancy. The working-age population (15-49 years) shows significant reductions.





Source: 2001, 2010, and 2022 Censuses. Prepared by: Author.

To better understand the situation of the population across these three censuses, Figure 3 presents the data following the cohort from 2001, who were 9 years old during the 2010 census and 21 years old in the 2022 census.

For those who were censused between 2001 and 2010, which corresponds to the group aged 21 to 40 in the figure, there is a noticeable increase in the number of people who self-identified as Afro-descendant in the 2010 census. In some cases, this number nearly

doubled. However, this trend does not continue for those aged 41 and above, where the data tends to align with the ages of those who identified as Afro-descendant in the 2001 census.

When comparing the 2010 census with the 2022 census, there is a reduction in the number of people aged 9 to 22 who identified as Afro-descendant, except for those who were 9 years old in 2022. For all other ages, the difference is negative, with the most significant drop occurring among those aged 18 to 20, though this trend is generally observed up to 40 years old. Therefore, individuals who identified as Afro-descendant in 2010 did not do so in 2022, which explains the reduction in numbers.

The graph suggests that the only trend with a certain degree of demographic consistency is between the 2001 and 2010 censuses, starting from individuals aged 40.

Figure 3. Total Afro-descendant population by single age, following the 2001 census cohort.



Source: 2001, 2010, and 2022 Censuses. Prepared by: Author.

Considering this situation of the Afro-descendant population across the three censuses, issues of mortality and migration will present certain inconsistencies in the data and cannot be analyzed in this document, as this is not its objective.

# Fertility

Fertility analyzes how a society reproduces itself. Three methods were applied—direct, Brass, and Arriaga—to adjust fertility data. The direct method serves as a basis for comparison, validating the consistency of the results. The Brass P/F method adjusts fertility rates using the proportion of women who have had children and the average number of children per woman, allowing for the comparison of historical data and adjustment of current rates. The Arriaga method uses the age structure and proportion of women of reproductive age from the censuses to estimate past fertility, which is crucial for understanding long-term demographic changes. These methods capture the complexity and diversity of the Afro-descendant population, which may show significant fertility variations due to socioeconomic and cultural factors.

The first indicator is the Total Fertility Rate (TFR), which represents the average number of children a woman will have during her reproductive life, from ages 15 to 49 (if fertility rates observed in a given year remain constant). This allows for an understanding of population growth. The Brass and Arriaga methods present different data, particularly for 2022, given that Brass's method assumes that fertility rates experience minimal changes over time, which may explain why its rate is higher for 2022 (see Figure 4a). When analyzed using Arriaga's data, it is observed that Afrodescendant women had a TFR of 4 children in 2001, which decreased to 3 in 2010 and eventually reached 2 children, clearly indicating a reduction in the fertility of this population, a trend also seen in other Ecuadorian populations, including the Indigenous (Salinas and García, 2024).

Another significant fertility indicator is the Age-Specific Fertility Rate (ASFR), which represents the number of births per 100 women in a specific age group during a given year. In 2001, high adolescent fertility (ages 15-19) is evident, with this age group averaging 14 births. This high trend continued into 2010, although Arriaga's calculations show a decrease. Nevertheless, both Ecuadorian and broader Latin American evidence suggest that this was a period of high adolescent fertility (Cesare, 2007; Vignoli, 2014). By 2022, the rate decreased significantly, with only 7 births per 100 women.

In 2001, Arriaga presents a high peak in the 20-24 age group, though all other age groups maintain high fertility. Brass maintains a similar curve, though with a slight decrease in the number of births for each age group. In 2010, Brass presents a declining curve for each age group, with a significant drop for those aged 30 and above. For the next census, in 2022, Arriaga shows a curve that decreases compared to previous years, highlighting the reduction in the number of births among women over 30. This may indicate that women in these age groups are gaining more access to information and family planning and are thus able to make more informed reproductive decisions, such as having fewer children.

If we analyze a longitudinal estimate, such as parity (specifically for women aged 45-49), we can see that the average reproductive trajectory of women decreases, as the cumulative number of children is lower in each census analyzed. As shown in Figure 4c, by 2022, women accumulated an average of 3 children by the end of their reproductive life, compared to 5 children in 2001.

A fourth indicator is the relative structure, which indicates the percentage of births occurring in each age group, relative to the total number of births across all age groups. The 20 to 24 age group maintains relatively high percentages (or shows minimal decline) compared to other age groups. In 2001 and 2010, the percentage of births among adolescents was high, but this contribution decreased significantly by 2022. The decline is more pronounced in age groups 35 and above, which is consistent with the downward trend observed in the other indicators.

Figure 4. Afro-descendant Population: Fertility Indicators—Total Fertility Rate, Age-Specific Fertility Rate, Mean Parity, and Relative Structure in 2001, 2010, and 2022.



Source: 2001, 2010, and 2022 Censuses. Prepared by: Author.

The fertility of this population clearly began its demographic transition late, as the data shows. This is further supported by the fact that, as the number of children decreases, there is a correlation with the decline in infant mortality, primarily due to biological factors (prolongation of the average interbirth interval, fewer births in high-risk age groups, and lower parity) (Zavala, 1992). Despite this, it is important to note that these indicators are higher compared to the total Ecuadorian population, which has a TFR of 1.86 (INEC, 2024). This confirms what several studies have demonstrated: that it is the most disadvantaged populations that initiate the demographic transition later (Chackiel, 2004; Chackiel & Schkolnik, 2003; Salinas, V. and Rodríguez, 2019), which may be related to limited access to the necessary mechanisms (health, education, information, employment, among others) for making decisions about the number of children (Salinas & Rodríguez, 2020).

# Mortality

In this analysis, mortality includes overall and age- and gender-specific mortality rates, as well as life expectancy and infant mortality. Age-specific mortality rates were calculated based on information from the 2010 and 2022 censuses and administrative records from 2010 to 2022. Mortality for the year 2001 and between 2001 and 2010 could not be analyzed because administrative records with ethnic disaggregation were only collected starting in 2010.

The mortality rate for this population, shown in Figure 5, presents an extremely high peak in 2011. These elevated rates are linked to what was previously mentioned, where ethnic self-identification saw its greatest increase in 2010. In the early years of 2010 and 2012, the rate is relatively high, reaching nearly 3 deaths, compared to the following years, where starting in 2013, the rate begins at one death and rises to a maximum of two deaths per 1,000 inhabitants until 2019. From this year onward, the rate increases to 3 deaths per 1,000 until 2022.



Figure 5. Afro-descendant Population: Mortality Rate 2010-2022.

When graphing the number of deaths, the mortality pattern in this population becomes more evident, particularly when comparing the years 2010, 2016, and 2022 (Figure 6).

Source: 2010, and 2022 Censuses and INEC administrative records. Prepared by: Author.

The reduction in the number of deaths among infants under 1 year old is revealing, both for men and women. Similarly, in all three years, men show a higher number of deaths than women, but it is among men that data most clearly reflects the current state of this population in terms of mortality.



Figure 6. Afro-descendant Population: Number of Deaths in 2010, 2016, and 2022.

Firstly, between 2010 and 2016, there is a decrease in the number of deaths, at least for those aged 0 to 54 years. From this age group onward, the number of deaths increases, which is likely tied to older adults facing limited access to healthcare services. In 2022, this dynamic changes dramatically, as from age 15 onward, the number of deaths increases compared to the previous two years, with the highest figures occurring among those aged 20 to 34. The numbers then show a slight decrease until age 54, but continue with a high number of cases, similar to previous years, where there is a significant number of deaths.

While mortality is an undeniable process, what stands out in this data is the age at which the number of deaths increases—adolescents, young adults, and adults. These deaths may be related to lifestyles that involve violence, criminal activities, among other factors, and have a direct correlation with socioeconomic factors that expose these individuals to higher risks. This hypothesis is proposed because Ecuador, and particularly the regions where Afro populations are concentrated, have not experienced disasters or wars that could have affected these populations. Similarly, there is a high number of cases among older adults, which also indicates that access to healthcare remains limited for these age groups.

Source: INEC administrative records. Prepared by: Author

Women show a more "normal" trend for a population, which is a reduction in the number of deaths over the years, related to various factors such as better access to healthcare, urbanization, and others. However, in certain age groups in 2022 (30-34 and 45-54 years), the number of deaths increases, though not to the same extent as for men.

Another equally significant finding is the high number of deaths among the elderly population, both for men and women, which, as mentioned earlier, highlights the limited access to healthcare and services for this population.

Figure 7 shows mortality rates by age groups and by year. Comparing the first four age groups (0 to 14 years old) between 2010 and 2022, there is a decrease in mortality rates for all these groups, with the most significant reductions seen among infants under one year old and children aged 1-4, reflecting improvements in child and youth health. From age 15 onward, for men, this dynamic is completely reversed, and mortality rates increase significantly until the 30-34 age group, then slightly decrease, but remain higher than in 2010, with the exception of the last age group.

For women, overall, their mortality rates in 2022 tend to follow patterns similar to those in 2010, although with slight increases in certain age groups, such as 5-14 years and the 20-24 and 30-34 age groups. This curve does not show the dramatic increases seen among young and adult men.

For older adults, both men and women, there are slight increases in mortality rates in 2022.



Figure 7. Afro-descendant Population: Age-Specific Mortality Rates in 2010 and 2022.

Source: 2010, and 2022 Censuses and INEC administrative records. Prepared by: Author

The data indicate that infant and youth mortality has significantly decreased for both men and women, suggesting improvements in healthcare and living conditions. For the 15 to 59 age groups, mortality rates have notably increased for men, while for women, although there are increases in some age groups, they are less pronounced. The differences in mortality by sex are significant, especially among young and middle-aged adults, where men exhibit considerably higher mortality rates than women.

These differences in age-specific mortality rates between 2010 and 2022, especially for men, are confirmed when calculating life expectancy. In 2010, men had a life expectancy of 77 years, but by 2022, this had decreased to 75 years. In contrast, women show an increasing trend, with life expectancy rising from 82 to 86 years (Table 1).

|   | Year | Male     | Female    |  |  |  |
|---|------|----------|-----------|--|--|--|
|   | 2010 | 76,6     | 81,5      |  |  |  |
|   | 2022 | 74,8     | 85,5      |  |  |  |
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Table 1. Afro-descendant Population: Life Expectancy at Birth in 2010 and 2022.

Source: 2010, and 2022 Censuses and INEC administrative records. Prepared by: Author

Infant mortality for this population was calculated using three methods: the direct, refined, and cohort methods. These three methods were used because the direct method may not account for factors such as migration, the refined method provides a more accurate and reliable estimate, and the cohort method offers a longitudinal perspective and can identify specific patterns in infant mortality (Table 2). The highest rates correspond to what has already been mentioned.

 Table 2. Afro-descendant Population: Infant Mortality Rates by the Direct,

 Refined, and Cohort Methods, 2010-2022.

| Year of | Dire | ect IMR | Refi | ned IMR | <b>Cohort IMR</b> |        |  |
|---------|------|---------|------|---------|-------------------|--------|--|
| birth   | Male | Female  | Male | Female  | Male              | Female |  |
| 2010    | 11   | 9       | 10   | 9       | 67                | 63     |  |
| 2011    | 64   | 59      | 77   | 70      | 21                | 16     |  |
| 2012    | 12   | 11      | 11   | 9       | 8                 | 6      |  |
| 2013    | 8    | 7       | 7    | 6       | 7                 | 5      |  |
| 2014    | 7    | 5       | 7    | 5       | 10                | 5      |  |
| 2015    | 11   | 5       | 11   | 5       | 10                | 7      |  |
| 2016    | 10   | 8       | 10   | 7       | 8                 | 8      |  |
| 2017    | 8    | 8       | 8    | 8       | 8                 | 9      |  |
| 2018    | 8    | 10      | 8    | 10      | 7                 | 11     |  |
| 2019    | 7    | 13      | 6    | 12      | 7                 | 7      |  |
| 2020    | 7    | 6       | 7    | 6       | 8                 | 7      |  |
| 2021    | 8    | 7       | 8    | 7       | 8                 | 5      |  |
| 2022    | 7    | 5       | 7    | 5       | -                 | -      |  |

Source: INEC administrative records.

Prepared by: Author

Overall, the rates are consistent across methods, with a slight variation for the years 2014 and 2015 in the cohort infant mortality rate (IMR) for women. This reflects stability in the infant mortality data and suggests that the data are reliable, as the variations are minimal. The rates have decreased over time, indicating improvements in healthcare and living conditions for the child population. Although the rates are generally higher for boys, the differences are not drastic, except in some specific years like 2015 and 2019.



Figure 8. Afro-descendant Population: Infant Mortality Rate in 2010 and 2022.

Source: INEC administrative records. Prepared by: Author

The notable decrease in infant mortality since 2012 reflects continuous improvements in healthcare and socioeconomic conditions for the Afro-descendant population (Figure 8). The consistency between the three methods used to calculate the infant mortality rate (IMR) suggests that the data are robust and the estimates are reliable. The slight variations between the direct, refined, and cohort methods highlight the importance of using multiple approaches to gain a comprehensive understanding of infant mortality.

The analysis of mortality in Ecuador's Afro-descendant population reveals both significant progress and persistent challenges. The improvements in infant and youth mortality are encouraging and reflect advances in living conditions and healthcare. However, the increase in mortality among young and adult men underscores the need for specific policies to address the underlying causes of these deaths, which, as noted earlier, are directly related to socioeconomic factors and discrimination to which this population is continuously exposed (Telles et al., 2015; Urrea-Giraldo et al., 2015a). Additionally, the increases in mortality rates among older adults indicate the need to improve access to healthcare services for these age groups.

# Migration

This research focuses solely on internal migration, as the available data are disaggregated by ethnicity. It examines migration at the highest level of administrative division, which is the province.

Ecuador currently has 24 provinces, but nearly 89% of the Afro-descendant population was concentrated in seven provinces in 2001. In 2010 and 2022, two of these provinces—Pichincha and Guayas—were divided, giving rise to nine provinces (Santo Domingo and Santa Elena, respectively), so this study will focus only on these provinces, with the others grouped as "Rest."

The objective of studying internal migration is to identify the intensity of migration within a population, to understand the growth effect at the subnational level, and to examine the distribution of the Afro-descendant population at the national level.

Guayas, being an important economic hub, had the largest Afro-descendant population in 2001 and 2010, although this decreased in 2022. Its net migration rate was positive in all three years, though it declined from 4 to 1 person per thousand inhabitants. Pichincha, another development hub, attracted more Afro-descendant people in 2001 and 2010 (28 and 17 people), but in 2022, it showed a decrease (-1 person). Esmeraldas—a province historically home to Afro-descendants since their arrival to what is now Ecuador—saw this population leaving in all three years.

El Oro consistently attracts the Afro-descendant population, while Manabí shows variation: high out-migration in 2001 (-31 people), reduced out-migration in 2010 (-6 people), and in-migration in 2022 (4 people). Los Ríos has a negative migration rate in all three years, although it decreases (-14, -4, and -2 people). Imbabura shows smaller rates and variation, with out-migration in 2001 (-2 people) and in-migration in 2010 and 2022 (2 and 1 person). Santo Domingo shows in-migration in 2010 with low migration efficiency and stability in 2022 (net rate of 0). Santa Elena attracts Afro-descendants in 2010 with high efficiency, although this decreases in 2022. The remaining provinces, despite showing high values, are not significant as they are grouped together as "Rest." However, these provinces shifted from being out-migration regions in 2001 and 2010 to in-migration in 2022, indicating a mobility of the Afro-descendant population toward other provinces.

Table 3 presents the Migration Efficiency Index (MEI), which measures the impact of migratory exchanges on provincial growth. This index captures the efficiency of the impact, not its specific magnitude.

Guayas shows positive net migration in all three years, but with decreasing efficiency, reaching an MEI of 5.72 in 2022. Esmeraldas has negative net migration in all three years, with high efficiency in 2001 (-35) and 2022 (-30), although lower in 2010 (-14). Pichincha moves from having net in-migration with high efficiency in 2001 and 2010 to net out-migration in 2022. El Oro shows positive net migration in all three years, with high efficiency only in 2001. Manabí transitions from net out-migration with high efficiency in 2001 (-67) and 2010 (-23), which had a high negative impact on provincial growth, to net in-migration in 2022 (12).

Los Ríos shows net out-migration in all three years, with high efficiency in 2001 (-38) and lower in 2010 and 2022 (-12 and -10). Imbabura has net out-migration in 2001 and low efficiency in net in-migration in 2010 and 2022. Santo Domingo shows positive net migration in 2010 and 2022 with low efficiency, while Santa Elena has high efficiency in 2010, leading to a significant positive impact on population growth, but this decreases in 2022.

The Global Migration Efficiency Index (GMEI) measures the proportion of migratory movements that generate a redistributive effect, serving as a measure of efficiency rather than impact. In 2001, the GMEI reached 40%, indicating a greater redistributive effect, decreasing in 2010 (25%) and 2022 (16%).

The Aggregate Net Migration Rate (ANMR), which measures population redistribution, was 3% in 2001, decreasing to 2% in 2010 and 1% in 2022, indicating a reduced redistributive effect of the Afro-descendant population.

The Total Internal Mobility Rate (TIMR) measures the intensity of internal migration. In 2001, 16 out of every 1,000 Afro-descendant individuals changed their residence (1.59%). This trend slightly decreased in 2010 (15 people) and significantly in 2022 (8 people, less than 1%).

Table 3. Afro-descendant Population: Internal Migration by Province in 2001,2010, and 2022.

|                 | e                |                  |         |        |        |          | n n     |           | e     |             | X            |              |
|-----------------|------------------|------------------|---------|--------|--------|----------|---------|-----------|-------|-------------|--------------|--------------|
|                 | lenc             | Ś                | ants    |        |        | ion      | ratio   | Ę         | n rat | tion        | Inde         | ion          |
| Province        | esic             | go               | ig      | ants   | uts    | graf     | nig     | atio      | tio   | gra         | ion          | graf<br>ite) |
|                 | al r             | ider<br>s a      | 8       | igr    | gra    | mig      | I SS    | igra      | gra   | e Mi        | rati<br>cier | solu         |
|                 | Jsu              | kesi<br>'eau     | Von     | uu     | Ξmi    | Net      | L0      | nm<br>ate | (m)   | Net<br>Rati | Alig<br>Effi | Net<br>Ab    |
|                 |                  |                  |         |        | 2001   | <b>F</b> |         |           |       |             |              | ~~~          |
| Guayas          | 216.055          | 211.400          | 204.185 | 11.870 | 7.216  | 4.655    | 19.086  | 11        | 7     | 4           | 24,39        | 4.655        |
| Esmeraldas      | 154.144          | 161.006          | 147.709 | 6.435  | 13.297 | -6.862   | 19.732  | 8         | 17    | -9          | -34,78       | 6.862        |
| Pichincha       | 78.274           | 68.171           | 64.158  | 14.116 | 4.013  | 10.103   | 18.129  | 39        | 11    | 28          | 55,73        | 10.103       |
| El Oro          | 28.092           | 26.885           | 25.299  | 2.793  | 1.586  | 1.207    | 4.378   | 20        | 12    | 9           | 27,56        | 1.207        |
| Manabí          | 29.910           | 35.022           | 28.628  | 1.282  | 6.394  | -5.113   | 7.676   | 8         | 39    | -31         | -66,60       | 5.113        |
| Los Ríos        | 27.330           | 29.317           | 25.712  | 1.617  | 3.605  | -1.988   | 5.222   | 11        | 25    | -14         | -38,06       | 1.988        |
| Imbabura        | 16547            | 16705            | 15117   | 1430   | 1588   | -158     | 3018    | 17        | 19    | -2          | -5,24        | 158          |
| The rest of the |                  |                  |         |        |        |          |         |           |       |             | <i>,</i>     |              |
| provinces       | 53.659           | 55.502           | 45.250  | 8.409  | 10.252 | -1.843   | 18.661  | 607       | 780   | -174        | 23,32        | 7.872        |
| Total           | 604.009          | 604.009          | 556.058 | 47.951 | 47.951 | 0        | 95.903  | 16        | 16    | 0           | 0,00         | 37.958       |
| TIMR            | GMEI             | ANMR             |         |        |        |          |         |           |       |             |              |              |
| 1,59%           | 39,58%           | 3,14%            |         |        |        |          |         |           |       |             |              |              |
|                 |                  |                  |         |        | 2010   |          |         |           |       |             |              |              |
| Guayas          | 350.542          | 347.472          | 336.059 | 14.483 | 11.414 | 3.070    | 25.897  | 8         | 7     | 2           | 11,85        | 3.070        |
| Esmeraldas      | 234.557          | 238.523          | 222.178 | 12.379 | 16.345 | -3.966   | 28.724  | 10        | 14    | -3          | -13,81       | 3.966        |
| Pichincha       | 116.268          | 106.787          | 99.215  | 17.053 | 7.572  | 9.481    | 24.625  | 31        | 14    | 17          | 38,50        | 9.481        |
| El Oro          | 41.356           | 40.629           | 37.583  | 3.773  | 3.046  | 727      | 6.819   | 18        | 15    | 4           | 10,67        | 727          |
| Manabí          | 82.824           | 85.431           | 78.538  | 4.286  | 6.893  | -2.607   | 11.179  | 10        | 16    | -6          | -23.32       | 2.607        |
| Los Ríos        | 48.320           | 49.261           | 44.915  | 3.405  | 4.346  | -941     | 7.751   | 14        | 18    | -4          | -12.15       | 941          |
| Imbabura        | 21.458           | 21.260           | 19.481  | 1.977  | 1.779  | 198      | 3.757   | 19        | 17    | 2           | 5.27         | 198          |
| Santo Domingo   | 28.313           | 27.312           | 23.896  | 4.417  | 3.416  | 1.001    | 7.832   | 32        | 25    | 7           | 12.78        | 1.001        |
| Santa Elena     | 26.128           | 25.015           | 24.253  | 1.875  | 762    | 1.113    | 2.637   | 15        | 6     | 9           | 42.21        | 1.113        |
| The rest of the |                  |                  |         |        |        |          |         |           |       |             | ,            |              |
| provinces       | 91.793           | 99.868           | 76.970  | 14.823 | 22.899 | -8.075   | 37.722  | 631       | 771   | -140        | 165,22       | 16.994       |
| Total           | 1.041.559        | 1.041.559        | 963.088 | 78.471 | 78.471 | 0        | 156.943 | 15        | 15    | 0           | 0,00         | 40.098       |
| TIMR            | GMEI             | ANMR             |         |        |        |          |         |           |       |             |              |              |
| 1,51%           | 25,55%           | 1,92%            |         |        |        |          |         |           |       |             |              |              |
|                 |                  |                  |         |        | 2022   |          |         |           |       |             |              |              |
| Guayas          | 234.433          | 233.820          | 228.771 | 5.662  | 5.049  | 613      | 10.711  | 5         | 4     | 1           | 5,72         | 613          |
| Esmeraldas      | 296.210          | 300.713          | 290.875 | 5.335  | 9.838  | -4.503   | 15.174  | 4         | 7     | -3          | -29,68       | 4.503        |
| Pichincha       | 80.658           | 80.936           | 75.898  | 4.760  | 5.038  | -278     | 9.798   | 12        | 12    | -1          | -2,84        | 278          |
| El Oro          | 28.003           | 27.771           | 26.470  | 1.533  | 1.301  | 233      | 2.834   | 11        | 9     | 2           | 8,20         | 233          |
| Manabí          | 28.843           | 28.307           | 26.246  | 2.597  | 2.060  | 536      | 4.657   | 18        | 14    | 4           | 11,52        | 536          |
| Los Ríos        | 20.488           | 20.726           | 19.387  | 1.101  | 1.339  | -238     | 2.440   | 11        | 13    | -2          | -9.77        | 238          |
| Imbabura        | 26.289           | 26.107           | 25.001  | 1.288  | 1.105  | 183      | 2.393   | 10        | 8     | 1           | 7.63         | 183          |
| Santo Domingo   | 23.023           | 22.984           | 21.156  | 1.867  | 1.827  | 39       | 3.694   | 16        | 16    | 0           | 1.06         | 39           |
| Santa Elena     | 8.640            | 8.448            | 7.856   | 785    | 592    | 192      | 1.377   | 18        | 14    | 4           | 13.96        | 192          |
| The rest of the |                  |                  |         |        |        |          |         |           |       |             | ,- 0         | -/-          |
| provinces       | 51.011           | 47.787           | 43.459  | 7.552  | 4.328  | 3.224    | 11.880  | 525       | 300   | 225         | 358,68       | 3.242        |
| Total           | 797. <u>5</u> 99 | 797. <u>5</u> 99 | 765.120 | 32.479 | 32.479 | 0        | 629     | 8         | 8     | 0           | 0,00         | 10.057       |
| TIMR            | GMEI             | ANMR             |         |        |        |          |         |           |       |             |              |              |

0,81% 15,48% 0,63%

Source: 2001, 2010, and 2022 Censuses.

Prepared by: Author

Guayas has consistently been a province that receives Afro-descendant population, although the net immigration rate has decreased over time. This suggests that, despite being an economic development hub, the attraction of new Afro-descendant immigrants is waning. Esmeraldas, a province with a consistent out-migration trend, maintains this pattern throughout the three periods analyzed. Its high efficiency in emigration highlights the significant departure of the Afro-descendant population, possibly reflecting unfavorable socioeconomic conditions. Pichincha, initially an attractive province with high migration efficiency, becomes an out-migration province by 2022, which may indicate changes in economic opportunities or living conditions that negatively affect its ability to retain the Afro-descendant population.

El Oro and Manabí show variations in their migration roles. While El Oro has been mostly a receiver of Afro-descendants, its migration impact efficiency has decreased. Manabí, initially an out-migration province, transforms into a receiver by 2022, reflecting positive changes in its socioeconomic conditions. Los Ríos continues to be an out-migration province, although the intensity of this trend has diminished. Imbabura shifts from being an out-migration province in 2001 to a receiver in 2010 and 2022, albeit with little efficiency in its migration impact. Santo Domingo and Santa Elena show themselves to be receivers in the years studied. Santo Domingo maintains a balance in 2022, while Santa Elena shows a reduction in migration efficiency, indicating a decrease in the attraction of the Afro-descendant population.

Another analysis performed is the effect of internal migration on the sex composition of the population in the provinces, showing how migratory flows affect the population profile in both origin and destination areas. The magnitude and selectivity of these flows determine the impact on the sex ratio.

Table 4 contains data for the same provinces previously analyzed. In 2001, the migration of the Afro-descendant population in the provinces of Guayas and Imbabura minimally reduced the sex ratio by just 0.01 percentage points—absolute difference—since the census recorded 1.08 men for every 100 women -factual<sup>2</sup>-, and without migration (or five years earlier), the ratio was 1.09 -counterfactual<sup>3</sup>. This means that, due to migration, the observed sex ratio (factual) is lower than what it would have been without migration (counterfactual). The magnitude of this impact, which depends on the rate of each sex and its relation to the total rate and provides the relative difference, presents more interesting data for other provinces. In Guayaquil and Imbabura, migration reduced the sex ratio by 1% from the counterfactual value, which in these cases are 1.09 and 0.97, respectively. In other words, without migration, the sex ratio would have been higher than what was observed.

For Manabí and Los Ríos, there is also a minimal reduction, while the rest of the provinces see an increase in the sex ratio, all by 1%.

<sup>&</sup>lt;sup>2</sup> **Factual:** If negative, this indicates that due to migration, the sex ratio (number of men per 100 women) has decreased in the real population. This may mean that more men than women have emigrated, or that more women than men have immigrated. If positive, the opposite applies.

<sup>&</sup>lt;sup>3</sup> **Counterfactual:** If negative, this indicates that, without migration, the sex ratio would be higher than what is observed. Migration has reduced the proportion of men compared to what it would have been without migratory movements. If positive, the opposite applies.

Regarding immigration, only Guayas shows a reduction in the sex ratio, with a factual value of 1.08 and 1.09 men per 100 women, respectively. This means that immigration reduces the proportion of men in Guayas. Without immigration, the sex ratio would have been higher (a reduction of 0.82%). In the other provinces, immigration slightly increases the sex ratio, with a 1% increase in three provinces.

As for emigration, four provinces show a minimal reduction in the factual sex ratio, indicating a slight impact on the proportion of Afro-descendant men. In the counterfactual value, almost all provinces show a reduction, except Esmeraldas. Imbabura presents the largest reduction (1.2%).

|                                | Inputs  |               | Net Migration<br>Effect |                        |                        |                        |                        |                        |                        |
|--------------------------------|---------|---------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                                |         |               |                         |                        | Immigra                | tion Effect            | Emigration Effect      |                        |                        |
| Province                       | Factual | Contrafactual | Non-migrant             | Absolute<br>Difference | Relative<br>Difference | Absolute<br>Difference | Relative<br>Difference | Absolute<br>Difference | Relative<br>Difference |
|                                |         |               |                         | 2001                   |                        |                        |                        |                        |                        |
| Guayas                         | 1,08    | 1,09          | 1,09                    | -0,01                  | -0,92%                 | -0,01                  | -0,82%                 | 0,00                   | -0,11%                 |
| Esmeraldas                     | 1,01    | 1,01          | 1,01                    | 0,01                   | 0,58%                  | 0,00                   | 0,40%                  | 0,00                   | 0,17%                  |
| Pichincha                      | 1,04    | 1,03          | 1,02                    | 0,01                   | 0,67%                  | 0,01                   | 1,42%                  | -0,01                  | -0,75%                 |
| El Oro                         | 1,15    | 1,14          | 1,14                    | 0,01                   | 0,84%                  | 0,02                   | 1,37%                  | -0,01                  | -0,53%                 |
| Manabí                         | 1,10    | 1,10          | 1,09                    | 0,00                   | -0,44%                 | 0,01                   | 0,53%                  | -0,01                  | -0,97%                 |
| Los Ríos                       | 1,23    | 1,23          | 1,23                    | 0,00                   | -0,19%                 | 0,00                   | 0,03%                  | 0,00                   | -0,21%                 |
| Imbabura<br>The rest of the    | 0,97    | 0,97          | 0,96                    | -0,01                  | -0,56%                 | 0,01                   | 0,65%                  | -0,01                  | -1,21%                 |
| provinces                      | 1,11    | 1,09          | 1,08                    | 0,02                   | 1,72%                  | 0,03                   | 2,47%                  | -0,01                  | -0,75%                 |
|                                |         |               |                         | 2010                   |                        |                        |                        |                        |                        |
| Guayas                         | 1,03    | 1,03          | 1,02                    | 0,00                   | -0,09%                 | 0,00                   | 0,31%                  | 0,00                   | -0,40%                 |
| Esmeraldas                     | 1,00    | 1,01          | 1,00                    | -0,01                  | -0,72%                 | 0,00                   | 0,36%                  | -0,01                  | -1,07%                 |
| Pichincha                      | 1,03    | 1,02          | 1,01                    | 0,01                   | 1,09%                  | 0,02                   | 2,38%                  | -0,01                  | -1,29%                 |
| El Oro                         | 1,10    | 1,10          | 1,09                    | 0,00                   | -0,02%                 | 0,01                   | 1,20%                  | -0,01                  | -1,22%                 |
| Manabí                         | 1,05    | 1,05          | 1,04                    | 0,00                   | -0,23%                 | 0,01                   | 0,66%                  | -0,01                  | -0,88%                 |
| Los Ríos                       | 1,11    | 1,11          | 1,10                    | 0,00                   | 0,05%                  | 0,01                   | 0,59%                  | -0,01                  | -0,54%                 |
| Imbabura                       | 0,95    | 0,95          | 0,94                    | 0,01                   | 0,56%                  | 0,02                   | 1,62%                  | -0,01                  | -1,06%                 |
| Santo Domingo                  | 0,99    | 1,00          | 0,99                    | -0,02                  | -1,50%                 | 0,00                   | 0,06%                  | -0,02                  | -1,56%                 |
| Santa Elena<br>The rest of the | 1,05    | 1,03          | 1,03                    | 0,02                   | 1,59%                  | 0,02                   | 1,96%                  | 0,00                   | -0,37%                 |
| provinces                      | 1,06    | 1,04          | 1,02                    | 0,01                   | 1,14%                  | 0,03                   | 3,03%                  | -0,02                  | -1,89%                 |
|                                |         |               |                         | 2022                   |                        |                        |                        |                        |                        |
| Guayas                         | 1,01    | 1,00          | 1,00                    | 0,00                   | 0,32%                  | 0,01                   | 0,75%                  | 0,00                   | -0,43%                 |
| Esmeraldas                     | 0,91    | 0,91          | 0,90                    | 0,00                   | -0,23%                 | 0,00                   | 0,23%                  | 0,00                   | -0,45%                 |
| Pichincha                      | 0,98    | 1,00          | 0,98                    | -0,02                  | -1,89%                 | 0,00                   | 0,49%                  | -0,02                  | -2,38%                 |
| El Oro                         | 1,05    | 1,05          | 1,04                    | 0,00                   | -0,46%                 | 0,01                   | 0,86%                  | -0,01                  | -1,32%                 |
| Manabí                         | 1,14    | 1,12          | 1,11                    | 0,03                   | 2,24%                  | 0,04                   | 3,30%                  | -0,01                  | -1,06%                 |
| Los Ríos                       | 1,09    | 1,13          | 1,09                    | -0,03                  | -2,91%                 | 0,00                   | 0,00%                  | -0,03                  | -2,91%                 |
| Imbabura                       | 0,91    | 0,92          | 0,91                    | -0,01                  | -0,88%                 | 0,00                   | 0,02%                  | -0,01                  | -0,91%                 |
| Santo Domingo                  | 1,00    | 1,00          | 0,98                    | 0,00                   | -0,43%                 | 0,01                   | 1,42%                  | -0,02                  | -1,85%                 |
| Santa Elena<br>The rest of the | 1,04    | 1,09          | 1,04                    | -0,05                  | -4,66%                 | 0,00                   | -0,22%                 | -0,05                  | -4,44%                 |
| provinces                      | 1,18    | 1,15          | 1,13                    | 0,03                   | 2,75%                  | 0,05                   | 4,17%                  | -0,02                  | -1,42%                 |

Table 4. Afro-descendant Population: Flow Indicator Matrix for Sex Ratio, 2001,2010, and 2022.

Source: 2001, 2010, and 2022 Censuses.

Prepared by: Author

In 2010, migration reduced the sex ratio in five provinces because it lowered the counterfactual value, with the most significant reduction in Santo Domingo (-1.5%). This implies that migration has significantly reduced the proportion of men compared to what it would have been without migration. Immigration increases the sex ratio in all provinces, especially in Pichincha and Imbabura (2%). Emigration reduces the sex ratio in almost all provinces, with the most notable decrease in Santo Domingo (-2%).

In 2022, Pichincha, Los Ríos, Imbabura, and Santa Elena slightly reduce the sex ratio due to net migration. Without migration, the sex ratio would have been higher in Santa Elena (-5%), Los Ríos (-3%), and Pichincha (-2%). Manabí is the only province to increase its sex ratio (2%). Immigration increases the sex ratio in most provinces, with Manabí showing a 3% increase in the counterfactual value. Emigration reduces the sex ratio in all provinces except Guayas and Esmeraldas, with the largest reductions seen in Santa Elena (-4%), Los Ríos (-3%), and Pichincha (-2%). The analysis of internal migration of the Afro-descendant population in Ecuador reveals that these movements have a significant impact on the sex ratio in different provinces, particularly in this population. In 2001 and 2010, migration minimally affected the proportion of men in Guayas and Imbabura, but by 2022, Pichincha, Los Ríos, Imbabura, and Santa Elena experienced more notable reductions, highlighting a shift in the migration patterns of the Afro-descendant population. Immigration tends to increase the proportion of men in several provinces, while emigration generally reduces it, especially in Santa Elena and Pichincha.

The reduction of the Afro-descendant population in Guayas is a significant finding. Despite the crises Ecuador faces, including violence and insecurity, Guayas remains the country's economic hub (García, 2023). This population reduction may be linked to a decline in self-identification, given that Guayas is one of the most violent provinces in the country. Identifying as Afro-descendant may carry a negative connotation for one's identity in such an environment.

# Conclusions

Fertility among the Afro-descendant population has shown a clear downward trend from 2001 to 2022. Methods such as those by Brass and Arriaga reveal a reduction in both the total fertility rate and age-specific fertility rate, particularly among adolescents and women over 30. The mean parity has also decreased, reflecting a reduction in the number of children accumulated throughout a woman's reproductive life. These changes suggest a late demographic transition, influenced by factors such as access to family planning and the decline in infant mortality. Despite these advances, fertility among the Afro-descendant population remains higher than in the total Ecuadorian population.

The analysis of internal migration data reveals complex patterns that affect both the geographical distribution and sex composition of this population. The trends of attraction and expulsion from different provinces, along with changes in the sex ratio, are notable. The constant emigration of Afro-descendant people from their original province, Esmeraldas, suggests that this province faces issues that drive residents to leave, potentially requiring targeted interventions to improve living conditions. The relative differences in the sex ratio show how migration alters the gender structure of this population.

Mortality, particularly among adolescent, young, and adult men, showed the highest rates in 2022 compared to 2010. This new reality may be linked to the socioeconomic situation in Ecuador, where violence has nearly quadrupled (Human Rights Watch, 2024). Additionally, the data comes from administrative records, reflecting social, cultural, and administrative factors that may lead to underreporting. These populations often have less access to healthcare and administrative services, resulting in fewer official death records. However, it is necessary to recognize that there is a demographic of social inequality based on ethnic-racial components that is still present in Ecuador (Nayara et al., 2022; Tavares, 2023; Urrea-Giraldo et al., 2015b).

Several factors may have contributed to the census results for the Afro-descendant population presenting "incongruent" values with the population dynamics experienced by these communities. However, this study focuses on just two, without suggesting they are the only factors or that they cannot interact with others. The aim is to bring these to the attention of academic and institutional spaces and highlight the urgency of conducting studies to better understand the situation of Afro-descendant populations in the data.

The first factor is acknowledging that the ethnic/racial dimension is a complex and multidimensional reality. Methodologically, it is possible to identify different aspects related to it, among which ethnic self-identification, based on individuals' own perceptions and conceptualizations of themselves, is just one approach. Objective indicators such as culture, language, skin color, and others can also be established, or both can be linked. However, it is necessary to recognize that ethnic/racial identities are the result of a dialectical relationship between group identification processes and social categorization, as two principles of the dialectic of individual and group identity (Jenkins, 2000, 2004).

Thus, ethnicity centers on cultural differentiation and reflects an identity formed through a dialectic between similarity and difference. Although ethnicity is deeply tied to culture and shared meanings, it is also grounded in social interaction. It is not a fixed or immutable characteristic but changes and adapts according to the situations and the culture/society in which it exists. As a social identity, ethnicity has both a collective and individual aspect, manifesting itself in social interaction and personal self-identification (García, 2004).

Ecuador implemented ethnic identity through a self-identification question, allowing ethnic identity to be formed and expressed primarily based on individuals' and groups' perceptions and voluntary choices. However, Afro ethnic self-identification also has an external categorization component, as it is primarily based on individuals' selfperception, but also influenced by how "others" view that person or group.

Ecuador has a history of discrimination against Afro-descendant and other diverse populations (Sánchez & García, 2015; Secretaría Técnica del Frente Social, 2005). This situation may have been exacerbated by the social, political, and economic crises Ecuador has faced in recent years, leading to insecurity that is directly related to increased discrimination against the poorest populations. Despite representing just 5% of the total population, Afro-descendants make up 40% of those living in poverty. Although this document does not work with socioeconomic variables, this reality is already recognized. In light of this, it is suggested that there may have been resistance among the Afrodescendant population to self-identify in the census due to discrimination and social stigma. This resistance severely affects the accurate collection of information about this group. Underrepresentation in the data prevents a proper understanding of their needs and realities, which, in turn, hinders the formulation of effective public policies aimed at closing ethnic gaps and promoting equity.

Without reliable and representative data, governments and organizations cannot design adequate interventions, perpetuating the marginalization and exclusion of the Afrodescendant population in areas such as education, health, and employment. Consequently, it is essential to address these dynamics of self-identification and discrimination to ensure that public policies reflect and respond to the realities of all ethnic groups.

The second element is effective participation and communication for the population counting process. By 2010, these two components were well-documented, allowing for verification that they fulfilled their functions, as evidenced by two elements: the increase in the self-identified population and the creation of a new ethnic group, the Montubios. For the 2022 census, this evaluation is the responsibility of the state institution in charge of the census execution.

This document suggests that these factors can indeed be determinants if the goal is real inclusion of the diverse populations that make up a country. The primary objective is to recognize the situation with accurate and precise data, enabling a real reduction of ethnic disparities.

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