Residential segregation of the migrant population in urban contexts of the Global South

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Abstract

This study examines the residential segregation of the migrant population in Uruguay in 2023, within a context in which the country has consolidated its position as a key destination in the intra-regional migratory system of Latin America and the Caribbean. According to data from the 2023 Census, more than half of the migrant population (55.7%) settled in the country during the intercensal period from 2012 to 2023, with Montevideo concentrating the largest share of recent arrivals. The Uruguayan case is particularly relevant because it tests the capacity of a state with a progressive and inclusive migratory policy to prevent processes of residential segregation and socio-spatial inequality. Despite the country's normative commitment to migrant inclusion, recent settlement patterns reveal emerging forms of territorial differentiation. The most recent arrival cohorts exhibit substantial concentrations in both central areas and peripheral zones adjacent to informal settlements, where housing conditions reflect overcrowding and significant distance from the city's economic core. Moreover, the degree and form of segregation vary according to migrants' country of birth and specific sociodemographic characteristics. The research asks: How do the settlement processes of recent migrants in Montevideo unfold across the urban territory, and to what extent do these processes give rise to dynamics of residential segregation that shape their social inclusion, particularly in relation to access to adequate housing and labor market participation? By combining demographic and spatial analysis, the study aims to contribute to a broader understanding of how inclusive policy frameworks interact with structural urban inequalities in shaping the settlement and social incorporation trajectories of migrants.

Introduction

Over the last decade, the Latin American and Caribbean region has witnessed a substantial rise in intraregional migratory flows(Bengochea & Pellegrino, 2023; Cerrutti & Parrado, 2015; Martínez Pizarro et al., 2014). Venezuelan migration has been the main protagonist of this process, accompanied by the emergence of Caribbean flows toward Southern Cone countries(Prieto Rosas & Bengochea, 2022). These South–South migratory flows have become consolidated not only because of their intensity, but also because of their mixed character, with demographic trajectories marked by social and documentary vulnerability, and with urban dynamics that have tested the reception and social inclusion capacities of the receiving countries, mainly in access to documentation, quality employment, and adequate housing (Álvarez Velasco, 2021; Gandini Ana; Narváez Gutiérrez Juan C., 2020; Gandini et al., 2019). These tensions were exacerbated during the COVID-19 pandemic, a period in which the intraregional migrant population turned out to be one of the most affected groups (Feline Freier & Jara, 2022; Prieto et al., 2021; Vera Espinoza et al., 2021; Zapata et al., 2022; Zapata & Prieto Rosas, 2020).

In this context, Uruguay constitutes a singular case study for two reasons. First, in the last decade, it transitioned from being a country with a negative migratory balance to recording a sustained increase in immigration flows, which altered this trend. The country has emerged as a destination for South–South migration in Latin America and the Caribbean, particularly for people from Venezuela, Cuba, and the Dominican Republic (Prieto Rosas et al., 2021; Prieto & Márquez-Scotti, 2019; Wang et al., 2023). This substantive increase in immigration flows is confirmed by the 2023 Census results, which indicate that 107,953 migrant individuals resided in the country, equivalent to 3.5% of the total population. Of the total number of immigrants, 40.9% arrived between 2018 and 2023, constituting the relative majority in relation to those who arrived in previous time periods. If we also consider those who arrived between 2012 and 2017 (14.8%), it is observed that more than half of the migrant population (55.7%) settled in the country during the intercensal period from 2012 to 2023. The main settlement area is the capital, Montevideo, which concentrates 63.7% of the recent immigrant population (arrivals between 2018 and 2023), a group that represents 2.7% of Montevideo's total population.

The concentration of migrants in the capital can be attributed mainly to the centralization of job opportunities and access to services that characterize this region. However, the city also exhibits structural barriers to adequate housing and persistent precarious living conditions. These are reflected in the endurance of informal settlements on the urban periphery and in collective housing forms embedded within the formal structure of the central area (Álvarez, 2019; Bengochea et al., 2022; Bengochea & Madeiro, 2020; Fossatti & Uriarte, 2018b, 2018a). Moreover, the capital experiences significant ethnic and racial inequalities that particularly affect its Afro-descendant population, who are frequently segregated and concentrated in impoverished peripheral neighborhoods (García Rey, 2022). This population often faces unsafe living conditions and marked material deprivation, mainly because of expulsions and displacements from central areas. It is noteworthy that a considerable proportion of migrants identify as Black or of Afro-descendant origin—a share that surpasses that of the native-born population who identify similarly. According to recent census data, 20.5% of migrants who arrived between 2018 and 2023 identify as Afro descendant, compared to 10.5% of those born in Uruguay. This overrepresentation underscores the connection between migratory status and racial inequalities, which are also evident in patterns of residential segregation and access to adequate housing.

These processes reveal the historical continuity of socio-spatial segregation that has shaped the urban landscape of the capital. Consequently, informal settlements and collective housing emerge as tangible manifestations of the housing inequalities that pervade the city and as the main residential alternatives for newly arrived migrants. The location of a person’s residence is crucial because the adverse effects of deprivation intensify when individuals live in areas where others share similar socioeconomic disadvantages. Such spatial concentration limits access to goods, services, and opportunities, reinforcing cumulative forms of exclusion. Urban segregation, therefore, is characterized by the unequal distribution of social groups across the city, the formation of increasingly homogeneous neighborhoods, the contrasting heterogeneity of their

surroundings, and the stigmatization of specific urban spaces (Sabatini, 2003). In Montevideo, these dynamics have evolved significantly over the past few decades (Aguiar, 2016; Katzman et al., 2004; Katzman & Retamoso, 2001). From this perspective, the analysis of territorial inequalities provides a valuable framework for understanding residential segregation as a key dimension of the social inclusion processes of migrants in the Global South.

Second, although Uruguay is not the leading destination of intraregional migratory flows, it is distinguished by a progressive regulatory framework — in particular, Migration Law No. 18,250 (2008) — that guarantees equal social rights to all people residing in the territory, as well as by a high rate of documentary regularization. These factors explain the country's choice as a destination, despite its relative disadvantages, such as a high cost of living (Prieto Rosas et al., 2021). However, the evidence suggests that the legal framework does not guarantee full inclusion, as difficulties persist in accessing quality employment and adequate housing, which are manifested in phenomena such as labor overqualification, wage segmentation, and residential segregation (Bengochea et al., 2022; Bengochea & Madeiro, 2020; Márquez Scotti et al., 2020; Wang et al., 2023). In this scenario, the present work aims to deepen the understanding of the processes of residential segregation of migrant people in reception contexts of the Global South. The analysis of the Montevideo case offers an opportunity to link a local study with global debates on how Southern countries address the challenges of social inclusion in contexts of structural inequality.

Background

Since the 1980s, Montevideo has undergone a process of intensification of residential segregation (Kaztman, 2007; Kaztman & Retamoso, 2001), which has been accentuated by the economic crises of the late 20th and early 21st centuries (Arim, 2008; Veiga Silvia, 2015). This scenario led to an increase in labor precarization and greater inequalities between areas of the city, with geographic spaces that are internally more homogeneous but increasingly differentiated from one another. In this way, a "spatial disequilibrium" and a "region effect" (Grafmeyer, 1994) are consolidated, characterized by the persistence and reproduction of socio-territorial inequalities, the growth of the peripheries, and the population decline of the central area (Rubini, 2020). Although in Uruguay the right to adequate housing is enshrined in Article 45 of the Constitution and developed in Law No. 13,728 (National Housing Plan) and is extended —together with other rights— to migrant and refugee people through Laws No. 18,250 and No. 18,076, its effective access remains in tension with the logic of the real estate market and the limited state involvement (España, 2019). This tension is expressed in precarious housing solutions characteristic of the Latin American region, such as irregular settlements — analogous to “favelas” in Brazil or “villas miseria” in Argentina —, the occupation of abandoned properties, and the use of collective dwellings as permanent residences. Irregular settlements are defined as groupings of more than ten dwellings built without authorization on public or private land, in formally irregular conditions, and with deficiencies in infrastructure and basic services (MVOTMA & BMB, 2019). In 2024, 667 settlements were counted throughout the territory, of which approximately three-quarters are located in Montevideo,

where 10.2% of the country's capital population resides (MVOTMA, 2024). This process of informal occupation of the territory, oriented toward the urban periphery, reveals one of the most pressing forms of marginality in the city, primarily responding to deterioration and economic inequality that exacerbate the structural gap between household income and the costs of accessing the formal housing market. Likewise, it is linked to conditions of social vulnerability, labor precarization, and limitations in accessing urban land, in a context of weak state capacity to regulate its use. Its inhabitants are affected by precariousness, stigmatization, and reduced opportunities (Álvarez, 2019). These dynamics are also linked to environmental problems —such as the accumulation of waste, the presence of dumps, the raising of animals, the proliferation of rodents, and the lack of or deficient connection to sanitation networks—, as well as to households that present more vulnerable sociodemographic profiles(MVOTMA, 2024; MVOTMA & BMB, 2019). In this context, where a significant part of the native population already faces vulnerability in accessing housing and a highly commodified real estate market, the recent migratory flows toward the capital are evident. In the case of the pensions, located mainly in the center and historic center of Montevideo, the background shows that they have become a widely used housing alternative among migrant people. In 2020, the Municipality of Montevideo registered 250 authorized establishments, in which four out of ten occupants were immigrants. In fact, one out of three migrants residing in the capital lives on a pension (Bengochea et al., 2022).

Bengochea & Madeiro (2020)demonstrated that recent migrants tend to concentrate in central areas, which is associated with the availability of pensions and temporary rentals. Furthermore, they found that overcrowding is frequent among those who have just arrived, clearly limiting access to adequate housing. They also observed differences according to the national origin of migrant people: those from Peru, the Dominican Republic, and Cuba tend to reside in low-quality collective dwellings in a higher proportion than the Venezuelan migrant population (Bengochea & Madeiro, 2020). The recent migrant population also faces precarious housing conditions in terms of quality, stability, and adequacy (Madeiro, 2022). Many migrant individuals begin their residence in low-quality collective accommodations, characterized by high levels of overcrowding. After a year of settlement, only some manage to access private dwellings with better conditions (Madeiro, 2022). This set of results indicates that the transition to more stable housing conditions is influenced by factors such as country of origin, job stability, income, and the presence of support networks, which generate internal inequalities within the migrant population itself. Finally, this type of residence is characterized by high costs, structural problems —such as dampness and a lack of ventilation in rooms—, irregular contracts that expose their occupants to significant contractual vulnerability, and extortion or unforeseen evictions by administrators (Fossatti & Uriarte, 2018b, 2018a).

The 2011 Census, prior to the sustained increase in migratory flows, already showed a tendency toward the concentration of the immigrant population in central and coastal neighborhoods, with differences according to national origin (Bengochea, 2017). However, the subsequent migratory growth occurred during the intercensal period, which limited the possibility of carrying out a

quantitative analysis of residential segregation. The new 2023 Census offers, instead, the opportunity to examine more precisely the recent patterns of location and concentration. During the COVID-19 pandemic, displacements from central pensions to peripheral settlements were recorded (IPRU, 2021), which raises the hypothesis of a possible reconfiguration of segregation patterns, a verification of which constitutes one of the objectives of this work. In this sense, the residential configuration of the recent migrant population in Montevideo expresses the convergence between structural processes of urban segregation and contemporary migratory dynamics. Understanding this intertwining constitutes the starting point of this work, whose objective is to analyze the patterns of residential segregation of the migrant population in 2023, based on census information, considering both its territorial distribution and the associated housing and labor conditions. This approach aims to contribute to broader debates on social inclusion and the right to the city from a perspective situated in the Global South, where historical inequalities in access to housing and tensions in the real estate market shape the actual possibilities of integration.

Theoretical framework

The analysis starts from the premise that urban neighborhoods present significant variations in dimensions such as crime rates, health levels, income, and other socioeconomic indicators, which, far from being due to family or individual factors (Verbitsky; Savitz Stephen W. & Natalya; Raudenbush, 2009), are linked to the structural characteristics of urbanization and the social stratification of neighborhoods (Sampson, 2008, 2012; Sampson Stephen W.; Earls Felton, 1997). In this sense, the literature posits a relationship between individual achievements —such as participation in the labor market or access to adequate housing— and the conditions of the neighborhood environment (Sampson, 2008; Sampson Stephen W.; Earls Felton, 1997). This perspective is especially pertinent in urban contexts of the Global South, where structural inequality translates into marked spatial segmentation. In the case of Montevideo, as mentioned above, starting in the 1980s, the separation of social groups in the territory intensified, with a marked expansion of irregular settlements and a growing polarization between prosperous areas of the center and southeast of the city and areas with significant economic deprivations located in a peripheral belt from the west to the northeast of the capital. Although the economic reactivation following the 2002 financial crisis and the social reforms of the last 20 years have managed to reduce inequality in aggregate terms, territorial gaps persist in access to well-being, which account for processes of residential segregation and fragmentation (Borrás, 2019). In this framework, the migrant population tends to settle heterogeneously in the territory, giving rise to two opposing dynamics: on the one hand, an insertion in areas of social and economic exclusion that reinforce vulnerability; and on the other, a location in ethnic enclaves where support and solidarity networks can facilitate integration (Logan et al., 2002). To understand the possible effects of territorial concentration or segregation on the social inclusion processes of migrant people, four analytical approaches are employed that address the "neighborhood effect." First, the geography of opportunities posits that the characteristics of the environment — such as the quality of services

or proximity to employment sources — directly influence individual outcomes, either enhancing or limiting them (Howell-Moroney, 2005). Second, the approach to understanding the actual disadvantages posits that the accumulation of social and economic inequalities, as well as population concentration by ethno-racial patterns, generates contexts of isolation and exclusion, which affect collective efficacy and residential stability (Sampson Stephen W.; Earls Felton, 1997). Third, the notion of collective efficacy, which highlights the role of social cohesion and the willingness of residents to act for the common good, although it warns about the tension between strong ties, which reinforce internal solidarity, and weak ties, which limit the connection with external opportunities (Granovetter, 1973; Morenoff et al., 2001). Lastly, the perspective of spatial disequilibrium highlights how the distance between the places of residence of minority groups and areas with greater job opportunities constitutes a structural disadvantage that explains part of the occupational achievement gap (Morenoff et al., 2001). In this sense, the degree of concentration of the migrant population in specific neighborhoods can operate in two directions. Positively, when the presence of a migrant population functions as a strong tie that provides informal networks of access to employment and community support, or negatively, when said concentration reinforces the accumulation of disadvantages and the distancing from areas of opportunity, deepening socio-spatial exclusion. This framework enables the connection between the discussion on residential segregation in Montevideo, where settlements and pensions have been visible expressions of housing inequalities, and broader debates on the neighborhood effect on the social inclusion of migrant people in the Global South.

Research questions and objectives

Research questions

How do the settlement processes of recent migrants in Montevideo unfold across the urban area, and to what extent do these processes contribute to residential segregation? Additionally, how do these dynamics influence their social inclusion, particularly regarding access to adequate housing and participation in the labor market?

General objective

To understand the spatial patterns and mechanisms of residential segregation of the migrant population in Montevideo (2023), by analyzing how the configuration of settlement and segregation processes shapes access to adequate housing and labor market inclusion.

Specific Objectives

i. Characterize the spatial and temporal patterns of residential segregation between migrant and native-born populations, considering arrival cohorts, countries of origin, and labour inclusion.

ii. Analyze the housing trajectories and conditions of the migrant population, with a particular focus on overcrowding, access to services, and housing precariousness.
iii. Examine the geography of settlement and concentration, identifying clusters of migrant residence and their relationship to urban structure, services, and opportunities.
iv. Assess the spatial interdependence between place of residence and indicators of labor inclusion (employment rate, job quality) and housing conditions (overcrowding, unsatisfied basic needs).
v. Interpret the socio-spatial mechanisms that link territorial concentration with inequalities in access to housing and work, integrating a structural and relational perspective.

Data and methods

The data used come from the 2023 Population Census of Uruguay. We will work with sociodemographic (sex, age, educational level), labor (activity rate, unemployment, quality of employment), and housing (overcrowding, housing conditions, unsatisfied basic needs) variables, both of the migrant population —considering the arrival cohort and country of birth— and of the native population. The analysis will be carried out at a granular level of disaggregation, using the census segment as the unit of observation. This scale is smaller than the neighborhood, allowing for a more precise capture of the spatial patterns of concentration, dispersion, and proximity between the migrant population and the native-born population in Uruguay.

The methodological strategy contemplates four complementary analytical stages. First, a descriptive analysis of housing conditions is presented. An initial characterization of the dwellings inhabited by migrant people will be conducted, considering indicators such as overcrowding, building materials, geographic proximity to irregular settlements, dwelling type (private or collective), and the presence of girls and boys in migrant households. This analysis will enable the identification of differences based on national origin and provide a foundation for subsequent spatial studies. Second, the measurement of residential segregation and spatial analysis. Indices of spatial concentration (IC) and dissimilarity will be calculated, following the proposals of Duncan and Duncan (1955) and Massey and Denton (1988). Likewise, given the limitations inherent in calculating these indicators, which do not consider the spatial dimension (White, 1983; Wong, 1993)(White, 1983; Wong, 1993), a version of the dissimilarity index is calculated that incorporates the spatial contiguity between adjacent geographic units. Along the same lines of complementing the disadvantages of the mentioned indices, measures of spatial autocorrelation are presented, such as the global Moran's I index and the LISA indicators developed by Anselin (1995) that make it possible to break down the spatial components of the global indices, intending to identify patterns of territorial clustering in the migrant population and in the population born in Uruguay. Third, an analysis of spatial correspondence. Bivariate Moran's I and LISA techniques will be applied to identify joint patterns of territorial distribution among sociodemographic, labor, and housing variables, contrasting the results at the level of the census segment and considering the arrival cohort and the national origin of migrant people. Fourth, modeling of spatial

dependence. Spatial regression models will be estimated to evaluate the extent to which the territorial location of the migrant population is linked to indicators of labor market insertion (activity rate, unemployment, quality of employment) and housing conditions (overcrowding, type of dwelling, material quality). This approach will enable the analysis of the relationships between migrant concentration in the territory and individual outcomes, considering both potential positive effects (support networks in migrant enclaves) and negative ones (accumulation of disadvantages and distance from economic opportunities).

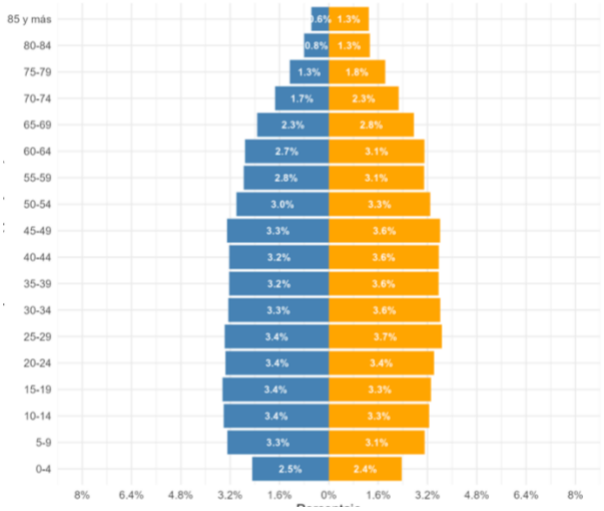
Results

Sociodemographic characteristics

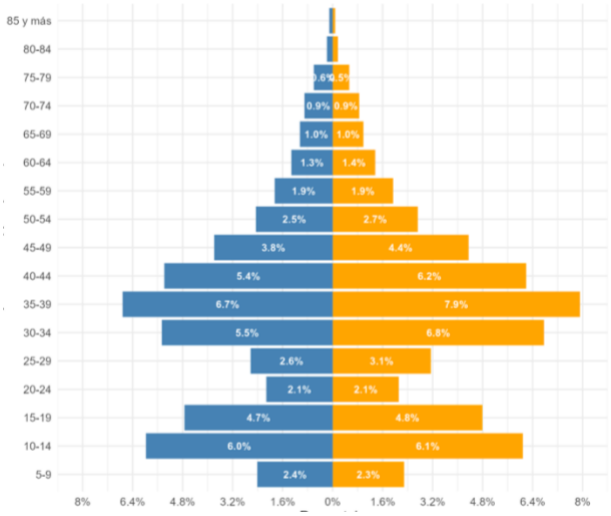
Compared to the population born in Uruguay, the immigrant population exhibits a younger age structure, higher educational levels, and a greater proportion of women. However, this varies according to the arrival cohort. Among recent immigrants, the proportions by sex are balanced (50.1% women and 49.7% men), whereas in the older cohorts, a more pronounced feminization is observed (56.7% women). The population pyramids (Figures 1-4) show that the population born in Uruguay presents an age structure that is substantially older than that of the immigrants. Recent immigration is primarily composed of young adults, particularly those between 25 and 39 years old, although it also includes a significant proportion of children and adolescents. This age profile aligns with the background that highlights the family character of the most recent Latin American migrations. In educational terms, immigrant people present a level of education higher than that of the population born in Uruguay. While among those born in the country, the primary and lower secondary levels predominate, among immigrants, university or postgraduate education is more frequent (40% versus 14.8%). This pattern intensifies in recent cohorts: more than half of those who arrived in the last 12 years attended undergraduate or postgraduate university levels, with 56.2% among those who arrived since 2018 and 53.7% among those who arrived between 2012 and 2017. Also, census data reveals that 10.5% of individuals born in Uruguay identify as Afro-American descendants. However, this percentage is notably higher among recent immigrants: 20.5% for those who arrived between 2018 and 2023, and 16.0% for those who immigrated between 2012 and 2017. In contrast, among immigrants who settled in Uruguay before 2012, the proportion of people identify as Afro-American descendants drops to 8.0%.

Figures 1–4. Population pyramids: immigrants by cohort of arrival and native-born population, Uruguay, Census 2023

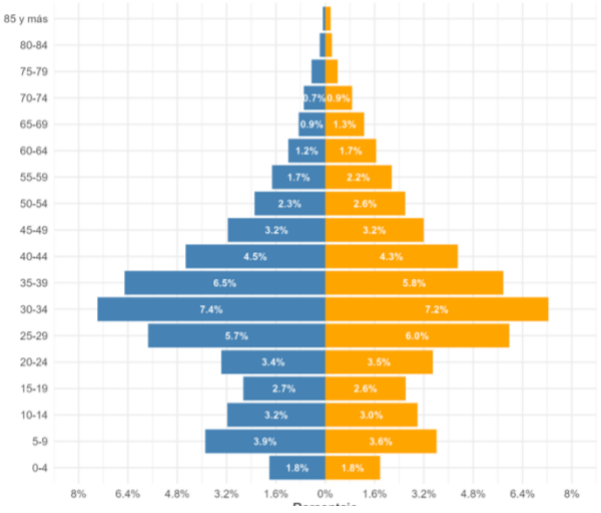
Native-born



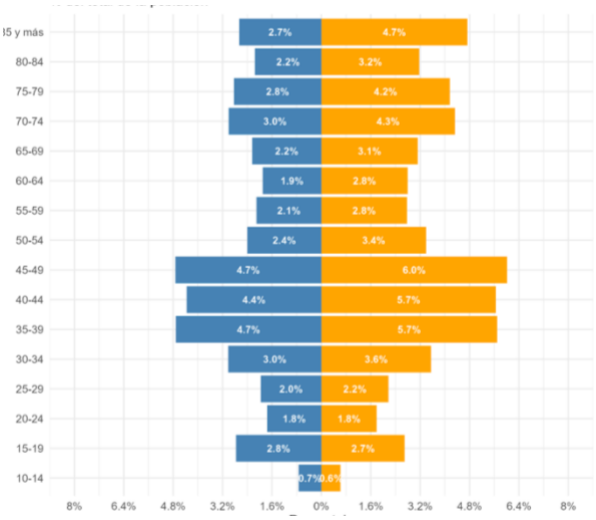
Immigrants, 2012 – 2018



Immigrants, 2018-2023



Immigrants, previous 2012



Female *Male*

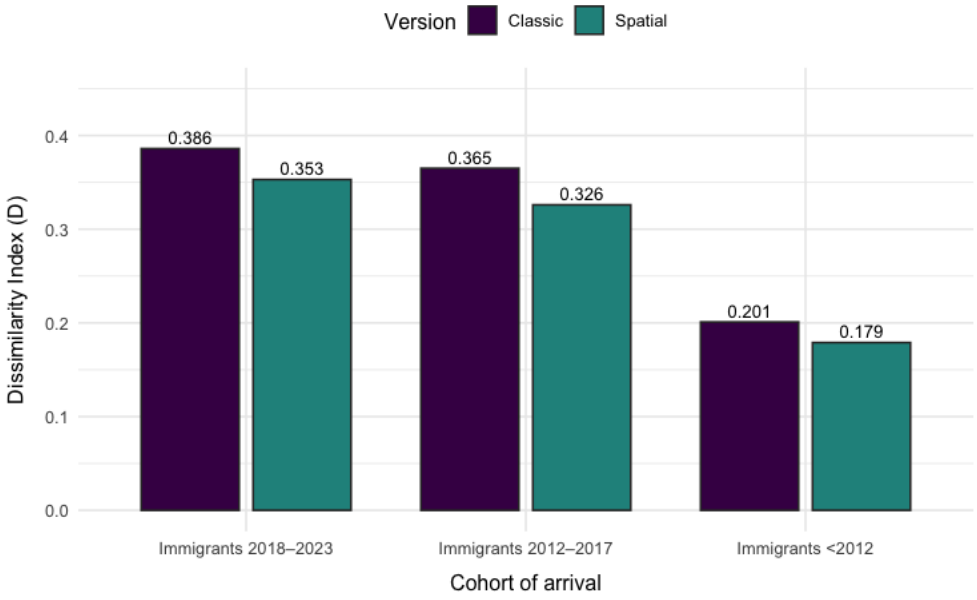
Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Duncan Dissimilarity Index (D)

The Duncan Dissimilarity Index (D) measures the degree of residential segregation between the migrant population and those born in Uruguay, expressing the proportion of the migrant group that would need to relocate to achieve a distribution equivalent to that of the native population. Its values, ranging from 0 (identical distribution) to 1 (complete segregation), indicate moderate levels of segregation, with apparent differences among arrival cohorts. The 2018–2023 (Figure 5) cohort presents the highest value (D = 0.386), followed by the 2012–2017 cohort (D = 0.365). In contrast, the cohort prior to 2012 records significantly lower segregation (D = 0.201). In the spatial version of the index ($\lambda = 0.5$) (Figure 6), which incorporates proximity between census segments, the values are slightly reduced (0.353, 0.326, and 0.179, respectively), indicating an attenuation of segregation when considering territorial contiguity. When disaggregated by country of birth, relevant heterogeneities are observed: the highest values correspond to people from the Dominican Republic, Paraguay, and Chile, while the lowest are recorded among Venezuela and Cuba, which suggests differentiated patterns of concentration and dispersion in urban space. Taken together, the results indicate that residential segregation is more pronounced among recent cohorts and varies according to national origin.In contrast, the earlier arrival cohorts tend toward a more balanced distribution in terms of the population born in Uruguay. However, in interpreting the data, it is essential to consider the effect of the magnitude of minority origins, as the indicator tends to be greater (White, 1983). The comparison between the classic and spatial versions of the index allows this reading to be deepened. In all cases, the values of the spatial index are reduced compared to the classic one, indicating that by weighting the interaction between contiguous census segments, territorial differences are smoothed and a spatial proximity in residential patterns is reflected, rather than a strict separation of the groups between formal administrative segments. The magnitude of this reduction depends on how fragmented or continuous the spatial pattern is: in highly concentrated and contiguous groups (such as those from the Dominican Republic or Paraguay), the decrease is moderate because the segments with a high migrant presence cluster in nearby areas; in contrast, in more dispersed groups or with abrupt territorial boundaries, the difference between both versions is greater, since the smoothing captures the gradual geographic transition that the classic index does not contemplate. In addition, in the older cohorts, the reduction is minor due to their more stable and homogeneous distribution. In contrast, in the recent cohorts, the decrease is more pronounced, suggesting that these populations reside in greater proximity to the native population or in areas of urban transition, rather than in clearly delimited migrant enclaves.

Figure 5. Duncan Dissimilarity Index by Cohort of Arrival

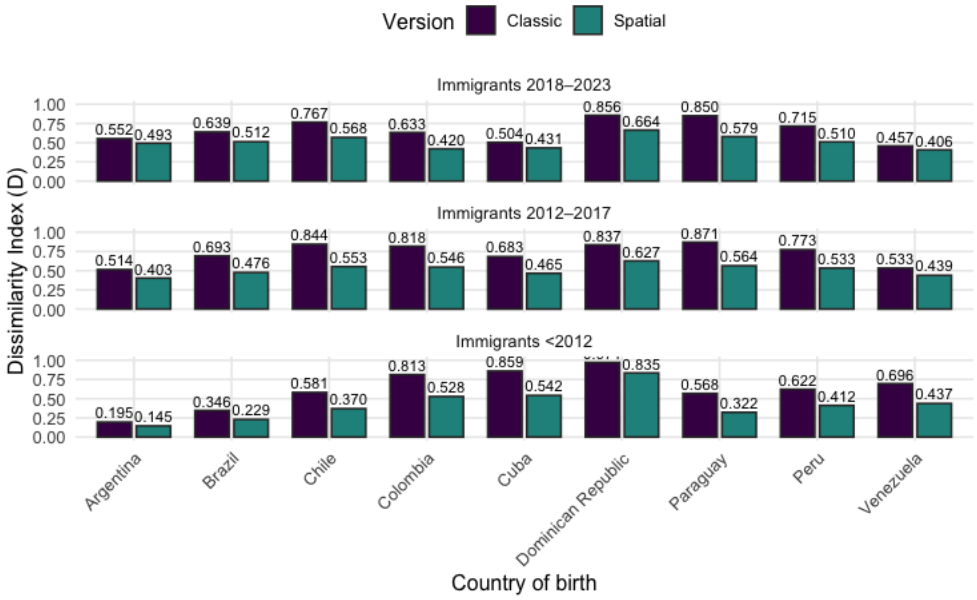
Comparison between classic and spatial versions (λ = 0.5)



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 6. Duncan Dissimilarity Index by Country and Cohort of Arrival

Classic and spatial versions (λ = 0.5)



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Concentration Index, LISA, and Overcrowding

This section presents, at the level of the census segment, the results of the spatial analysis applied to the study of residential segregation and the housing conditions of the migrant population in Montevideo. Three complementary indicators are used: the Concentration Index (CI), which measures the relative intensity of the migrant presence in the territory; the Local Indicators of Spatial Association (LISA), which allow the identification of significant clusters of high or low migrant concentration; and the overcrowding indicator (OI), which estimates the percentage of people who reside in households with more than two people per room intended for sleeping.

The Concentration Index (CI) enables the analysis of the relative distribution of the migrant population within the territory, comparing its weight in each census segment with the weight that segment has in the total population. In this way, the index expresses the degree to which the presence of migrant people in an area exceeds or falls short of what would be expected if their distribution were proportional to that of the population as a whole. CI values above 1 indicate concentration above the average (presence more intense than expected), while those below 1 indicate underrepresentation or dispersion.

The LISA (Local Indicators of Spatial Association) indicators enable the identification of patterns of spatial autocorrelation and indicate where census segments with high or low percentages of migrant populations cluster significantly. High–High clusters indicate areas with a high concentration of migrant people, surrounded by segments with similarly high values of migrant concentration, while Low–Low clusters indicate areas with a low migrant presence, adjacent to similarly low environments. This analysis complements global measures of segregation by mapping the spatial structure and local nuclei of concentration of a group within the urban territory.

The overcrowding indicator (OI) shows the percentage of people, according to their migratory status and arrival cohort, who live in households in a condition of overcrowding, defined as the presence of more than two people per room intended for sleeping. This threshold enables the identification of areas within the territory where housing conditions are more precarious, allowing for a comparison of the differences between migratory cohorts and the population born in Uruguay.

The indicators presented on the maps — calculated at the level of the census segment — are complemented by the overlay of the official shapefile of informal settlements, represented by red boundaries. This overlay has an approximate and contextual character, allowing for the exploration of the spatial correspondence between census segments and areas of the territory associated with housing informality. Due to the confidentiality restrictions of the 2023 Census, which prevent access to more detailed geographic information (such as street or block), it is not possible to identify precisely which people reside within the settlement polygons. Consequently, the analysis is interpreted as a spatial approximation aimed at relating the indicators of concentration, autocorrelation, and overcrowding with the distribution of settlements in the city.

Preliminary results

The results for the 2018–2023 (Figure 7, 10 and 14) cohort show a clear territorial concentration of the migrant population in census segments in the south and southwest of the city and in sectors of the east and northeast, where the Concentration Index (CI) reaches high values and the LISA identifies High–High clusters, that is, areas where segments with high percentages of migrant population cluster contiguously. These areas partially overlap with informal settlements, which indicates that the recent arrival of migrant people occurs in urban contexts characterized by housing informality and precarious access to land. The vulnerability of newly arrived immigrants in the country is complemented by a pattern of spatial segregation, which, in a vicious circle, appears to lead to an accumulation of disadvantages. Overcrowding among migrant people in this cohort presents high levels and is concentrated in those nuclei, which reinforces the evidence of a residential insertion in inadequate housing. In contrast, people born in Uruguay present low and more homogeneous levels of overcrowding, without noteworthy spatial concentrations.

The migrant population that arrived between 2012 and 2017 (Figure 8, 11 and 15) is distributed across a greater number of census segments, although with less intensity than in the recent cohort. The CI shows medium and high values in intermediate and edge areas of the capital, while the LISA reveals a smaller number of significant clusters and greater spatial fragmentation. In terms of overcrowding, this cohort presents heterogeneous values: elevated foci are observed in both areas close to irregular settlements and in intermediate areas of the urban fabric, alongside segments of low overcrowding in the same corridor. The comparison with the population born in Uruguay reveals a widening gap on the city's margins, where the recent migrant presence begins to coincide with the limits of urban expansion. This pattern suggests a process of diversification in residential trajectories, in which some migrant individuals manage to secure adequate housing. In contrast, others are located in areas with more precarious housing conditions.

The cohort prior to 2012 presents a different panorama (Figure 9, 12 and 16). The CI reaches moderate values, and the LISA does not identify significant clusters, which reflects a more uniform distribution of this population in the territory. The levels of overcrowding are low and stable, without overlap with settlements or with nuclei of urban precariousness. In comparison with the population born in Uruguay, the differences are minimal, suggesting that longer-standing migrants experience a process of residential convergence with the native population in terms of housing conditions.

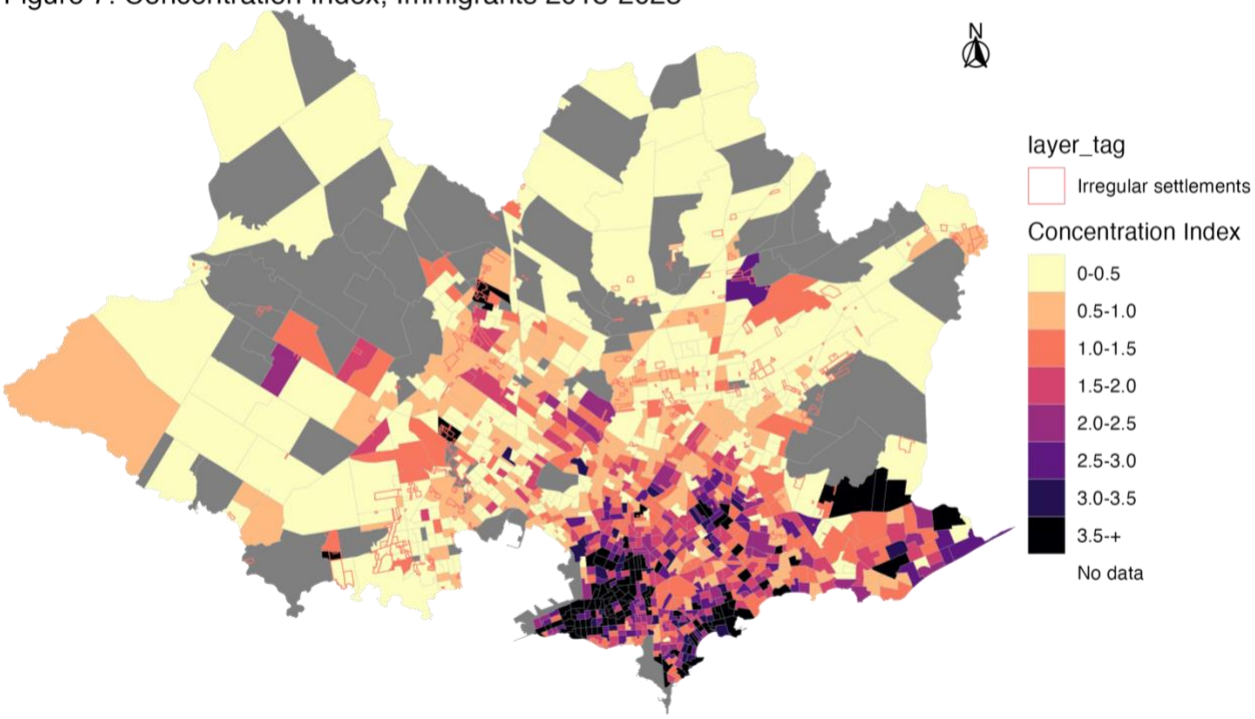
The temporal comparison allows us to specify that the presence of the migrant population in irregular settlements does not constitute a concentration that disappears over time, but rather a recent and expanding phenomenon. The background indicates that the integration of migrant people in the Montevideo territory occurs in a more restrictive urban context, characterized by a highly commodified housing market and a limited supply of housing for sectors with fewer economic resources. Within this framework, the most recent cohort's observations reveal a

territorial displacement toward areas with more fragile housing conditions, often associated with informal land access or collective and precarious rental regimes. This pattern does not express a downward mobility trajectory with respect to previous cohorts, but rather the emergence of new modalities of urban segregation, where location in areas of territorial disadvantage reproduces forms of social incorporation traversed by structural vulnerability.

Taken together, the CI, LISA, and overcrowding maps enable the identification of a pattern of deepening housing inequalities. While people born in Uruguay maintain a stable territorial distribution and low levels of overcrowding, recent migrants concentrate in areas where overcrowding and residential precariousness are more pronounced. The cohorts of the intercensal period present an intermediate and fragmented position, and those prior to 2012 resemble the native population in terms of stability and housing conditions.

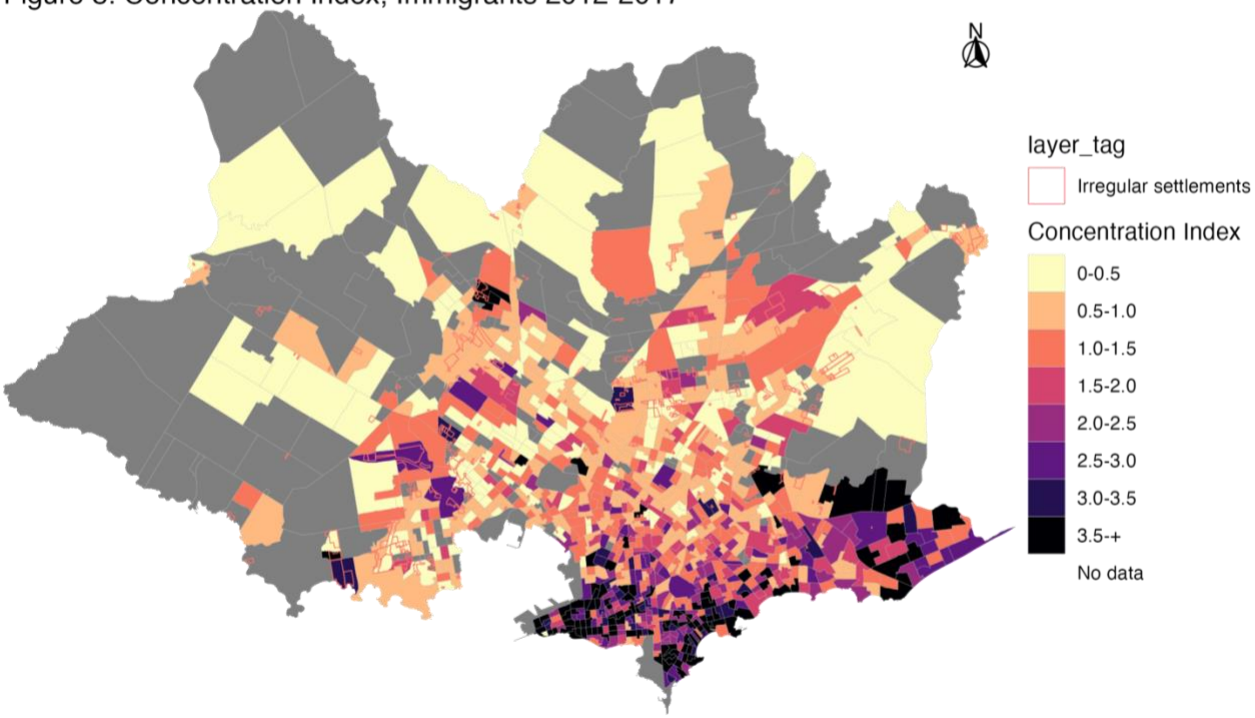
These contrasts show that the processes of social inclusion of migrant people, mediated by the territory, do not follow linear or convergent trajectories. On the contrary, they are configured based on processes of residential segregation that limit access to environments with greater opportunities, which generate forms of precarious or negative urban segregation. In particular, the recent emergence of the migrant presence in settlements, in a context of persistent residential segregation and dwellings with high levels of overcrowding, constitutes one of the most visible expressions of the tension between the increase in immigration, with a young and qualified profile, and the structural restrictions of the housing market. The dynamics of the territorial location of recent migrants, who primarily come from non-bordering Latin American countries, appear to perpetuate the city's existing inequalities. This phenomenon suggests that the country's inclusive migration policy does not guarantee effective conditions for social inclusion, as housing and territorial inequalities hinder the integration of migrant individuals into the host society. The patterns of spatial segregation are a key factor in the inclusion process of recent migrants.

Figure 7. Concentration Index, Immigrants 2018-2023



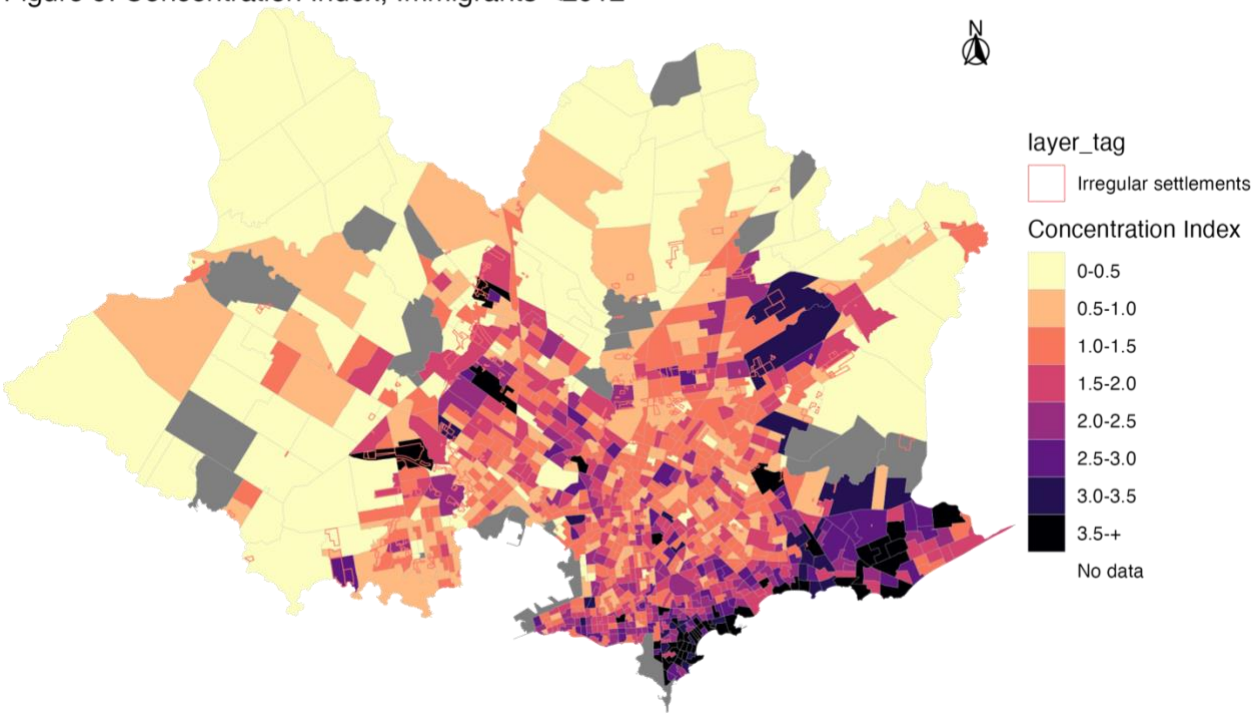
Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 8. Concentration Index, Immigrants 2012-2017



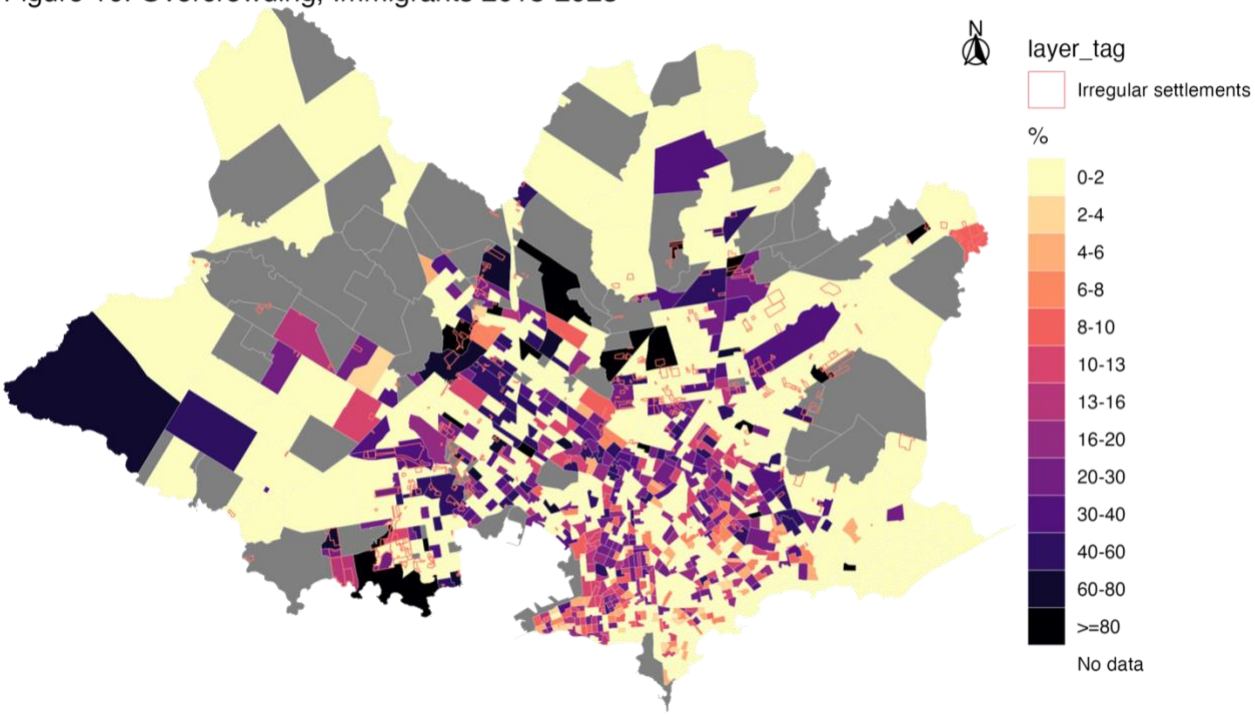
Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 9. Concentration Index, Immigrants <2012



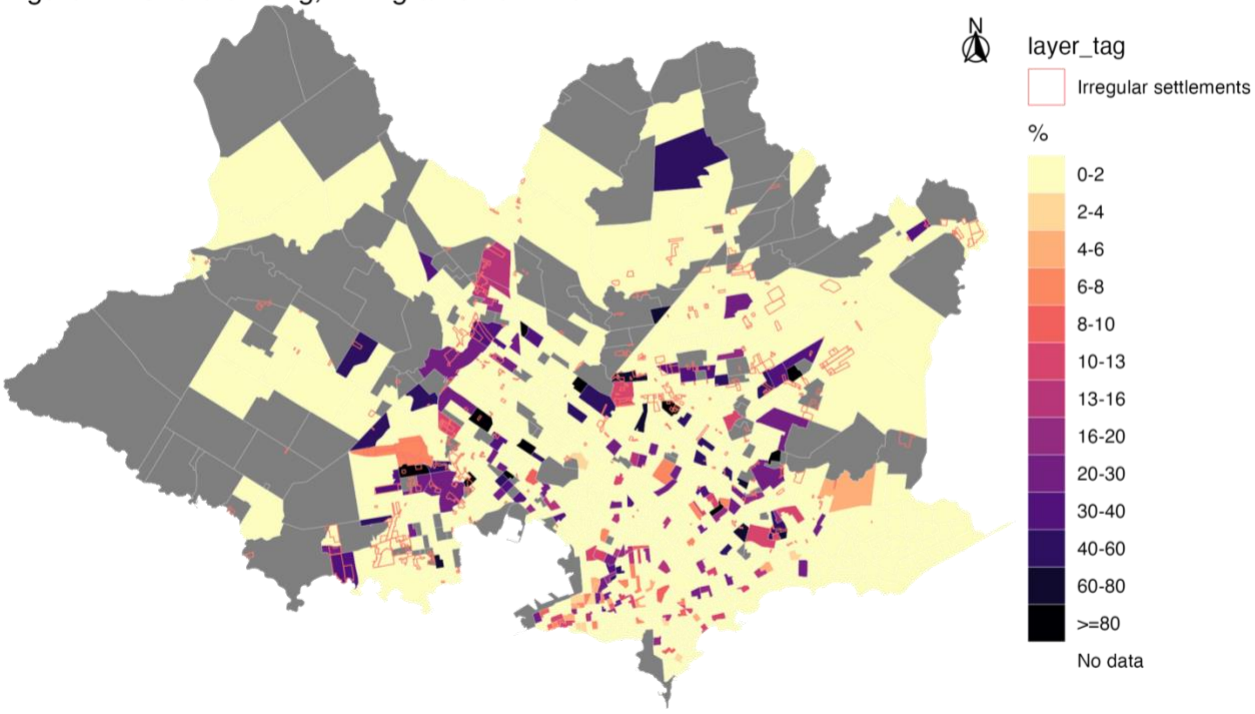
Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 10. Overcrowding, Immigrants 2018-2023



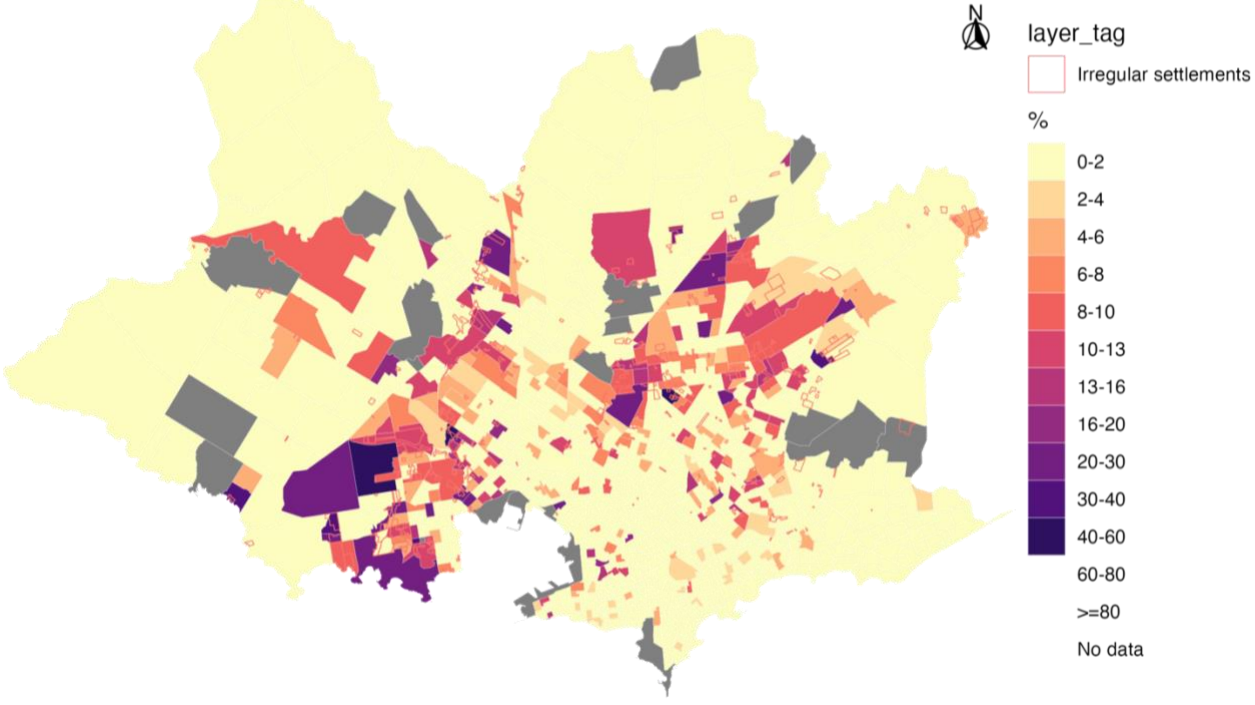
Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 11. Overcrowding, Immigrants 2012-2017



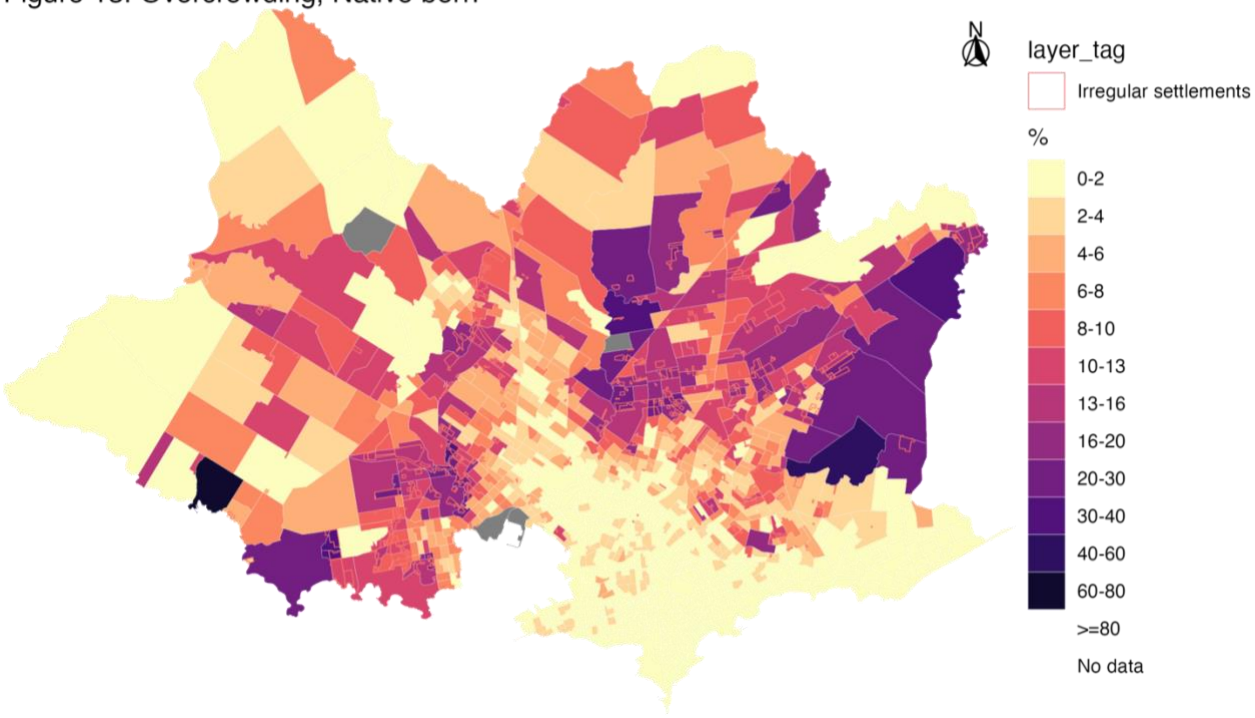
Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 12. Overcrowding, Immigrants <2012



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

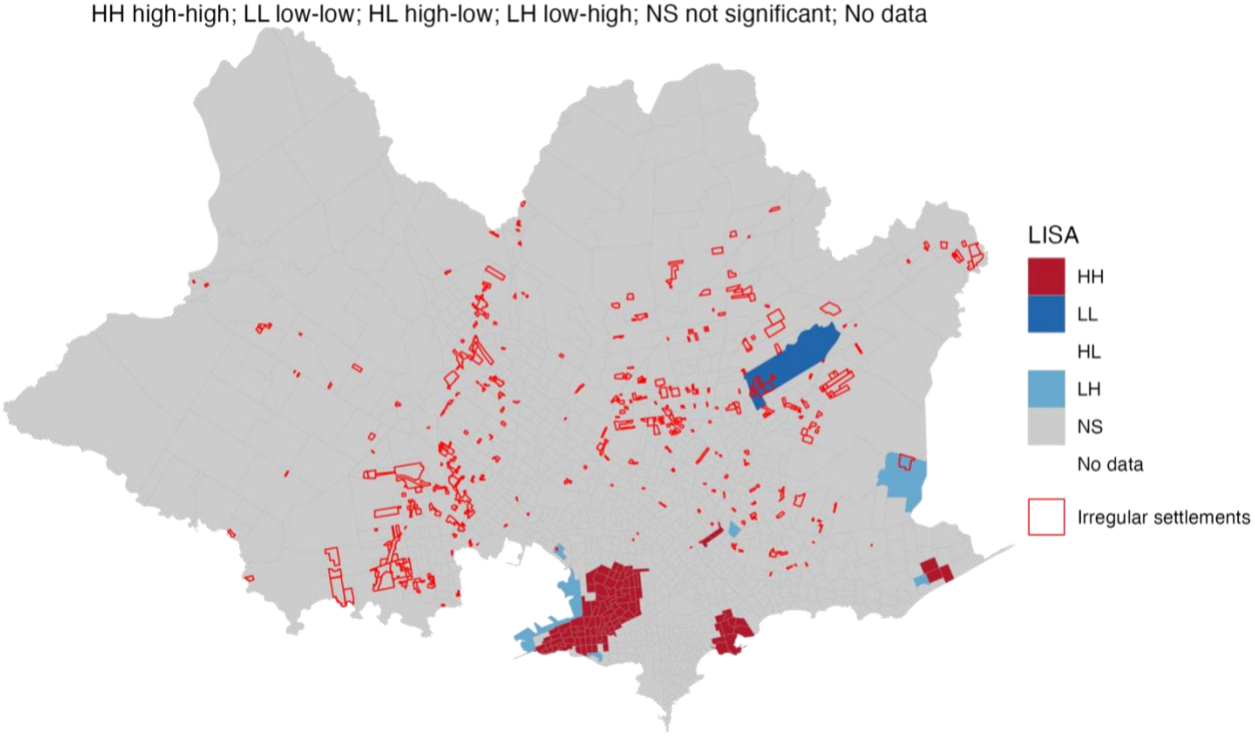
Figure 13. Overcrowding, Native born



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 14. LISA — % Immigrants 2018-2023

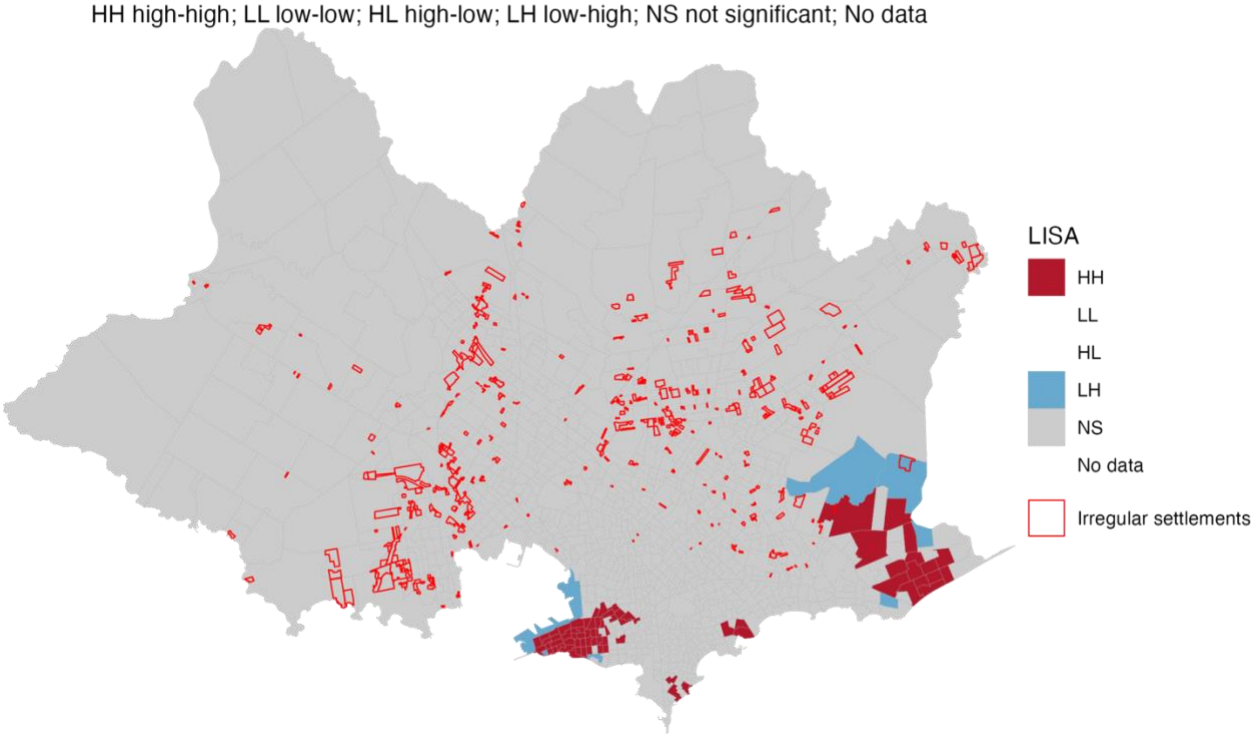
HH high-high; LL low-low; HL high-low; LH low-high; NS not significant; No data



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 15. LISA — % Immigrants 2012-2017

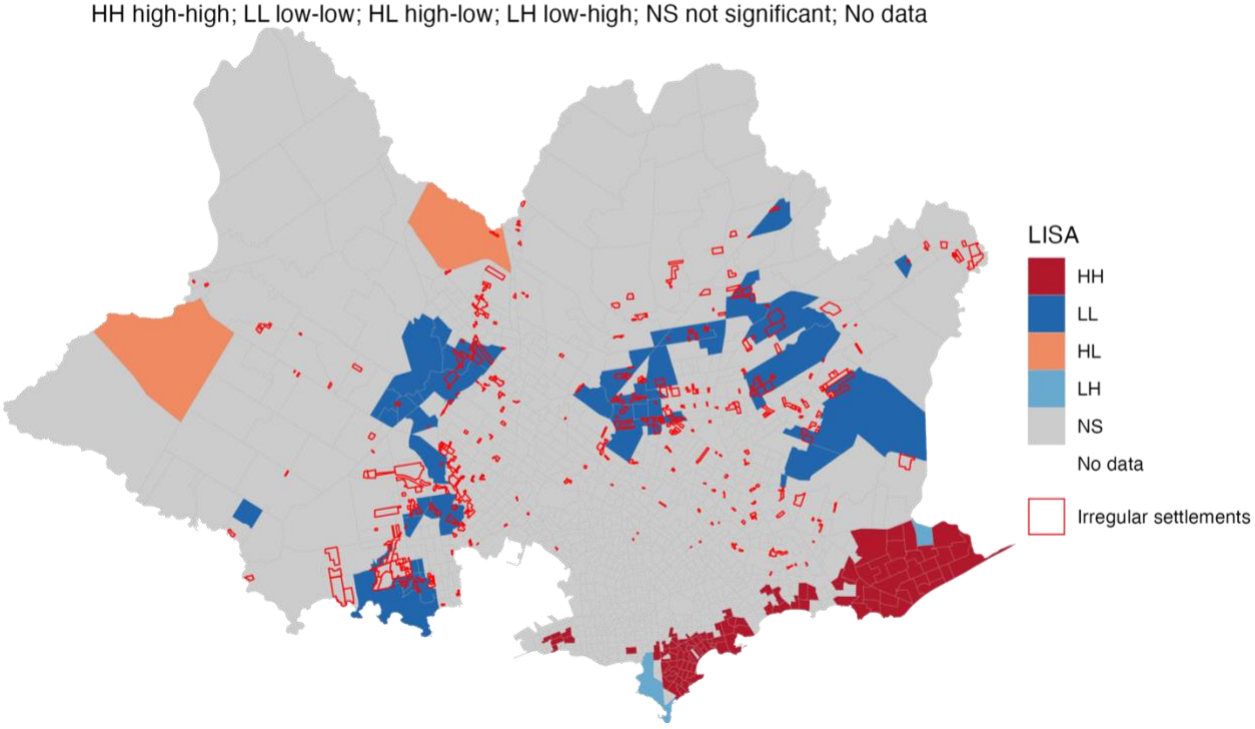
HH high-high; LL low-low; HL high-low; LH low-high; NS not significant; No data



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

Figure 16. LISA — % Immigrants <2012

HH high-high; LL low-low; HL high-low; LH low-high; NS not significant; No data



Source: Author's own elaboration based on the 2023 Population Census, INE, Uruguay.

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