

Suburbanisation through Residential Mobility of the Immigrant Population in Spain: Between Dispersion and the Emergence of New Spaces of Concentration

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Introduction

Large cities have traditionally served as initial hubs for immigrant settlement. In Spain, this trend has coincided with significant arrivals in tourist areas and regions of intensive agriculture, both marked by high labour demand. Cities like Madrid, Barcelona, and Valencia show immigrant population shares above the national average. From a metropolitan perspective, initial settlement in central cities has often been followed by residential dispersion into peripheral areas. These patterns differ from native suburbanization, where movement from dense centres to metropolitan outskirts remains common.

This dispersion is neither linear over time nor uniform across immigrant groups. Economic shifts—from early 21st-century growth, through the financial crisis, to later recovery and the COVID-19 impact—have shaped migration flows, influenced by direct arrivals from abroad and migrants' socioeconomic profiles. In some cases, dispersion reduces segregation compared to natives; in others, it replicates clustering patterns outside central cities, often in lower-income housing originally built for internal migrants.

This study aims to analyse the evolution and spatial patterns of immigrant redistribution in Spain's major metropolitan areas. It hypothesizes that territorial dynamics vary by national origin and differ from those of the native population.

Methodology and Statistical Data

This study uses data from the Residential Variation Statistics (EVR), based on changes of residence declared in the Continuous Population Register. This administrative record includes most immigrants, as it serves as proof of residence for later regularization processes. Microdata from 2000 to 2021 are used. From 2021 onward, the Migration and Residential Changes Statistics (EMCR) replaces EVR.

Metropolitan areas are defined using Eurostat's Functional Urban Areas (FUA), formerly Large Urban Zones (LUZ), which include a central city and surrounding municipalities. The six largest FUAs in Spain—Madrid, Barcelona, Valencia, Seville, Bilbao, and Málaga—are analyzed, comprising 482 municipalities, with 17.6 million residents. Madrid and Barcelona are examined in greater detail due to their size and established migration patterns.

Euclidean distances between municipalities were calculated using the exact location of each town hall, considered more accurate than municipal centroids. Using ARCGIS, a distance matrix

was created to compute average internal movement distances, including those from the central city. These averages are calculated by immigrant group and five-year age groups.

Migration rates by nationality, age, sex, and distance to the metropolitan center were also calculated. The analysis is divided into five economic periods: 2000-2007 (growth), 2008-2013 (crisis), 2014-2019 (recovery), 2020-2021 (COVID-19), and 2022-2024 (new growth). Immigrants are grouped into six categories: 1) EU-15 and developed countries, 2) Other Europe, 3) Maghreb, 4) Sub-Saharan Africa, 5) Latin America, and 6) Asia. Finally, three types of movements are distinguished: 1) from the central city to the metropolitan area, 2) other movements within the FUA, and 3) total movements.

Some descriptive first results:

Intrametropolitan Migration in Spain’s Six Largest LUZs

Intra-metropolitan migration within Spain’s six largest Large Urban Zones (LUZs) peaked around 2005, just before the housing bubble burst and as the baby boom generation was entering residential independence, in a context of rapidly rising housing prices (Burriel, 2008). This peak can be partly attributed to housing access difficulties and to movements that exceeded LUZ boundaries during the years of sharp property price increases. In fact, the highest level of internal movement among Spanish-born individuals has not been surpassed since.

This was accompanied by residential changes among the immigrant population, which reached a first peak around 2007-2008, slightly later in Bilbao, where the economic crisis had a milder impact and the immigrant population continued to grow. Unlike natives, foreign-born individuals experienced a renewed increase in internal movements, in some cases exceeding the peaks of the early 2000s. The COVID-19 pandemic had a noticeable impact, causing a general decline in mobility, especially in the three most populous metropolitan areas (figure 1).



Figure 1. Intra-metropolitan migration flows by origin (rates)

Average emigration distance from the central city

With the exception of Málaga, foreign-born populations tend to migrate over shorter distances compared to natives. Barcelona stands out as the metropolitan area where differences between native and immigrant mobility patterns are most pronounced, while Málaga and Seville display greater similarities between the two groups. Furthermore, in Barcelona, Seville, and Madrid, the

distance from the central city has increased during the period of economic recovery, reflecting changing residential dynamics (figure 2).

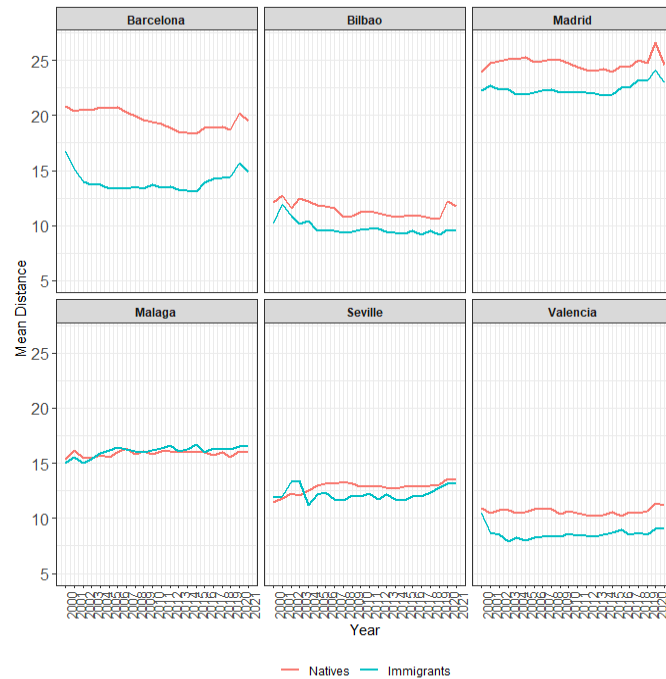


Figure 2. Average emigration distance from the central city

Distance by Type of Movement

The distance travelled also varies significantly depending on whether the movement originates in the central city or not. Movements starting from the central city are always much longer, highlighting how the suburbanisation process mainly extends towards the second metropolitan rings. Among foreign-born populations, distances are consistently shorter, especially in Barcelona, where departures from the central city dominate overall mobility.

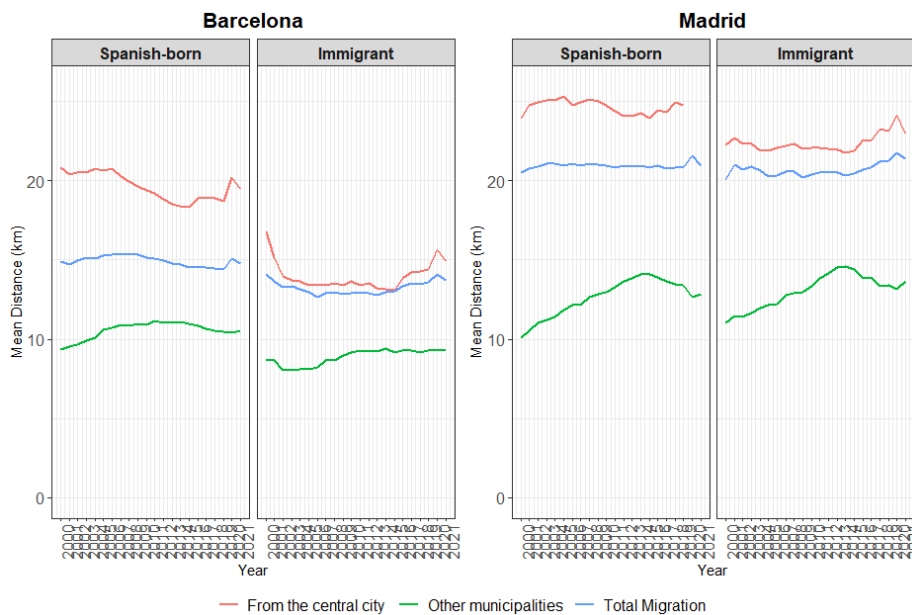


Figure 3. Average emigration distance according to type of movement

Average Distance by Age and Origin

Calculating average residential movement distance by age and origin provides insight into mobility patterns and their evolution over time. Younger individuals tend to move shorter distances, while this increases with age. Adolescents often replicate the longer distances of their parents. Temporally, the highest average distances occurred between 2000 and 2007, during a period of rapid housing market growth. These distances declined between 2008 and 2013, and further between 2014 and 2019. However, in 2020–2021, average distances returned to levels seen a decade earlier in Barcelona, and reached their highest values in Madrid.

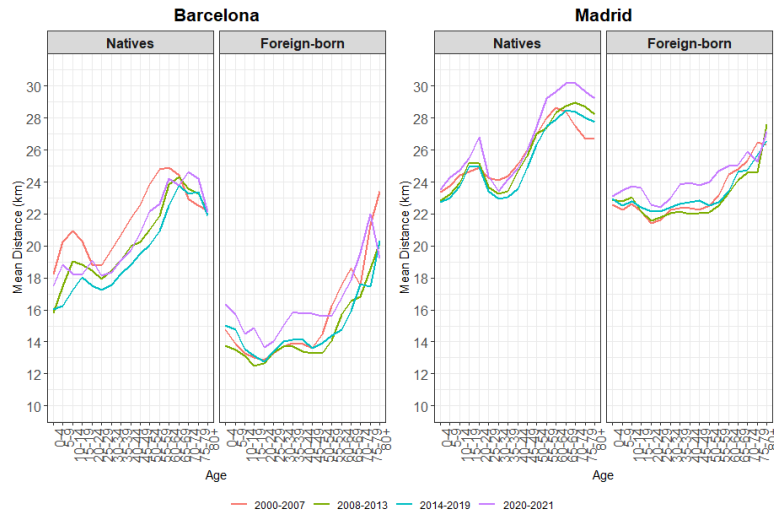


Figure 4. Average emigration distance from the central city by age

First conclusions:

The initial results show that we can identify the following patterns:

- 1) The importance of intra-metropolitan migration. There is a clear link between international and internal migration, both following similar temporal patterns. Around 40% of all mobility occurs within FUAs with the highest concentration of immigrants, underlining the relevance of these movements in shaping metropolitan dynamics.
- 2) The existence of a dispersion process. Immigrant dispersion differs from that of natives, who generally move to more distant locations. This is largely due to the characteristics of the housing stock, which is denser and often in poorer condition in the first urban periphery.
- 3) Differences between FUAs. Barcelona shows the greatest divergence between native and immigrant patterns, while Málaga and Seville display more similarities. Madrid and Barcelona behave more similarly overall, despite morphological differences, with Valencia to a lesser extent.
- 4) The greatest similarity of EU15. Migrants from EU15 countries behave most like the native population, with comparable migration rates and distances.
- 5) The lower Asian dispersion. Asian migrants tend to move shorter distances, indicating a preference for the first metropolitan ring and reproducing high levels of territorial concentration.
- 6) The validity of using distance on a metropolitan scale. Average distance is a useful metric to summarise and visualise differences between groups. It highlights both similarities and divergences, as well as their evolution over time.