

# Housing Demand in the Metropolitan Region of Barcelona: Insights from Headship Rates and Changing Household Behavior

## ABSTRACT

The assessment of household formation rates constitutes a key prospective element for estimating the magnitude of housing needs. In this regard, an analytical exercise is proposed to measure demographic demand in (RMB).

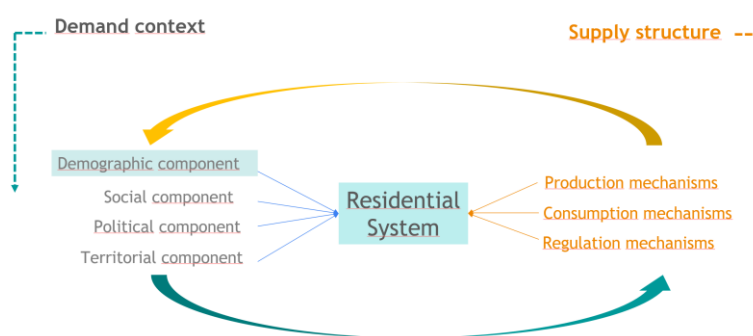
To this end, headship rates by age (the proportion of individuals who lead or are identified as the reference person of a household relative to the total population within the cohort) are constructed as a methodological approach that captures variations in household formation dynamics across the 2001, 2011, and 2021 censuses.

### 1. The Demographic Component within the Residential System

The concept of the *residential system* provides an interpretative framework that links demographic analysis with housing. This relationship extends from analytical elements such as the age structure of the population—as a key variable in defining patterns of residential mobility and housing accessibility (Rossi, 1955; Le Bras & Chesnais, 1973)—to the study of household formation processes across territories (Myers, 1990).

However, this system operates as a complex structure of interrelations between demographic, social, political, and territorial contexts, and the residential markets and structures in which actors and institutions define the mechanisms of housing production, consumption, and regulation (Boelhouwer, 1993) (Diagram 1).

Diagram 1. Components of the Residential System

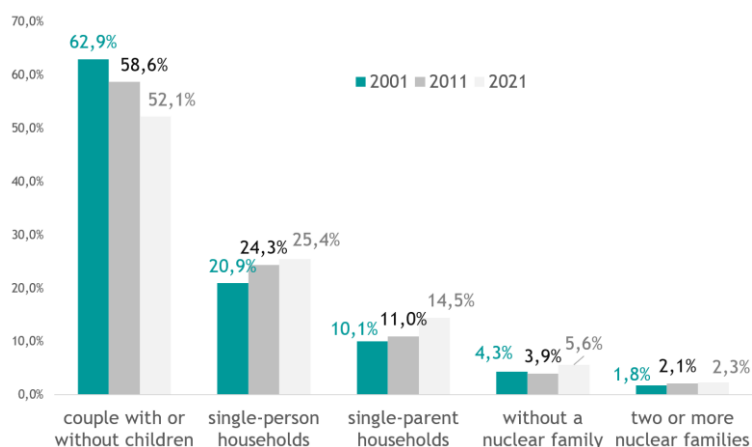


Source: Author's own elaboration

According to Allen et al. (2004), the territorial level of the Metropolitan Region of Barcelona (MRB) falls within the category of the Mediterranean residential system, whose most distinctive historical features include late household formation, high rates of home ownership, and the central role of families in housing provision. A more contextual review of this profile, however, suggests signs of change.

Indeed, although of the approximately 1.9 million households occupying the MRB more than half still correspond to traditional households (couples with or without children), their relative share has been declining. In their place, single-person and non-nuclear household structures have gained relevance over the past two decades (Figure 1). At the same time, ownership tenure has contracted, while renting has increased its share by 8 percentage points between 2001 and 2021 (with 67.9% of households owning their dwelling and 25.3% renting in 2021).

**Figure 1. Intercensal dynamics of household types in the MRB**  
(Census microdata 2001, 2011, and 2021)



Source: Author's own elaboration based on census microdata from 2001, 2011, and 2021

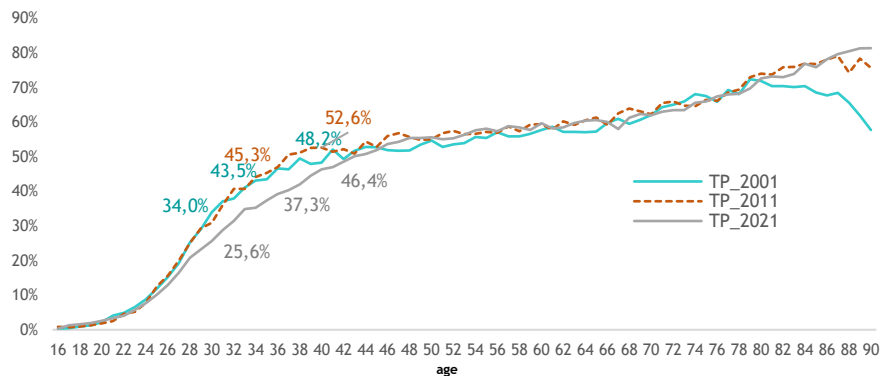
### 1.1 Demographic Demand and Housing Needs - Methodological Approach

A crucial element for formulating planning and housing policies is understanding the evolution of new household formation (Bergin and Egan, 2024). The percentage of the population that is the head or reference person of a household is measured by the headship rate, which is a direct determinant of the number of households and, therefore, the housing stock.

The age of the household reference person is as important as income in determining housing tenure conditions (Allen et al., 2004). Thus, to understand the household formation process in the RMB (Metropolitan Region of Bucaramanga), headship rates were estimated by single age groups based on the definition of kinship roles and the formation of family units within households.

The headship rate estimates for the 2001, 2011, and 2021 census rounds show, as expected, a positive relationship between the percentage of people heading a household and age. Particularly noteworthy is the contraction observed in 2021 for the 25-40 age group, suggesting a decline in household formation within that population segment (Figure 2).

**Figure 2. RMB Principality Rate  
(census microdata 2001, 2011 and 2021)**

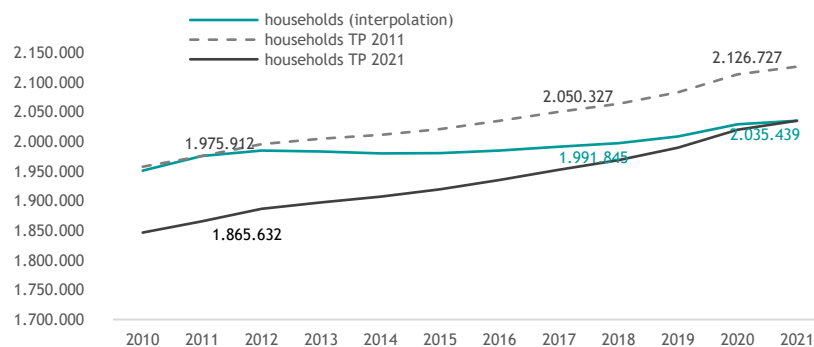


Source: Author's own elaboration based on census microdata from 2001, 2011, and 2021

The gap that emerged over the 20 years of the analysis period indicates a lower propensity for the population to form households in this age segment (25 to 40 years). Thus, modeling the volume of households with different behavioral patterns can reveal the sensitivity of demand quantification.

Figure 3 illustrates three possible scenarios regarding the evolution of the number of households with different behaviors. The first scenario is constructed using linear interpolation between the estimated rates for the census periods studied. The other two scenarios maintain the same headship rate for 2011 and 2021 over an 11-year period, assuming that household formation between 2010 and 2021 followed the same dynamics as the population in 2011 and 2021. Thus, if 2021 is taken as the reference year, the difference in the number of households is approximately 91,000, comparing the households formed with the estimated fixed age patterns in 2011 (2,126,727) to the result of the interpolation exercise, which yields a total of 2,035,439. Furthermore, it is observed that had the headship levels estimated for 2011 been maintained, the number of households would have been significantly higher compared to the other two contrasting scenarios.

**Figure 3. RMB household estimation using interpolated principality rates vs. 2011 and 2021 principality rates**



Source: Author's own elaboration based on census microdata from 2001, 2011, and 2021

This exercise was developed considering the endogenous dynamics of the RMB (Metropolitan Region of Bucaramanga), that is, contrasting the patterns of behavior that have manifested within the same regional sociodemographic structure in different historical contexts.

This approach not only allows us to identify variations in these dynamics, but also offers clues about the existence of latent or potential demand, which must be taken into account in the analysis of the evolution of housing needs.

## 2. Reflections

The analysis of the demographic cycle is a relevant component for assessing the housing needs of the population, while understanding the territorial implications and constraints of the existing housing infrastructure.

The reduction in the headship rate in the 25-40 age cohort is a suggestive result in terms of problems such as: the distortion of housing demand, which can lead to more intense future mismatches between supply and needs; precarious housing and overcrowding; and the intensification of intergenerational inequality.

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