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Changes of residence in times of COVID-19: a small respite from rural depopulation



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After the outbreak of the COVID-19 pandemic, several commentators, especially from non-academic fields, speculated about a potential exodus from urban to rural areas. However, this hypothesis has not been confirmed due to a lack of data with information capturing changes of residence at local level. This issue of *Perspectives Demogràfiques* offers the main results of a study led by the Centre for Demographic Studies and the Autonomous University of Barcelona which analyses internal migration between cities, suburbs, and rural areas in 2020, compared to migration patterns during the four years preceding the pandemic. The analysis used microdata from the Residential Variation Statistics (EVR) of the Spanish Statistical Office (INE) which cover all changes of residence in the country's 8,131 municipalities. The results show significant changes in internal migration patterns during 2020. In-migration to cities decreased, while out-migration increased, especially to rural areas. The latter flow had an important demographic impact on country villages. Despite these changes, internal migratory movements between and within urban areas dominated, as they did prior to the pandemic. At the same time, monthly data suggest that the changes are likely a temporary outcome.

Rural areas became more attractive and cities less so

Until the 1970s, urbanisation was the dominant migration pattern reflecting population movements from rural to urban areas (Collantes; Pinilla, 2019). After the 1970s, suburbs started to consolidate shaping dynamics of suburbanisation (Susino; Duque-Calvache, 2013). The economic crisis of 2008 slowed urban periphery expansions, giving a stage without a clearly dominant pattern. Urbanisation and suburbanisation processes overlapped with migratory movements to certain rural areas close to cities (López-Gay, 2017), resulting in a spatial equilibrium in the internal migration system with balanced population flows between core cities, suburbs and rural areas (Rowe et al., 2019), although with a slight trend towards suburbanisation in the largest cities (Gil-Alonso et al., 2021).

In the four years prior to the pandemic, internal out-migration from core cities, suburbs, towns and rural municipalities was largely offset by internal in-migration, although these movements led to a slight increase of population in suburbs of the largest Spanish cities (Figure 1). This therefore confirms the state of spatial equilibrium of internal migration across the urban hierarchy. Nevertheless, the outbreak of the COVID-19 pandemic in 2020 brought about some remarkable changes in the migration system.

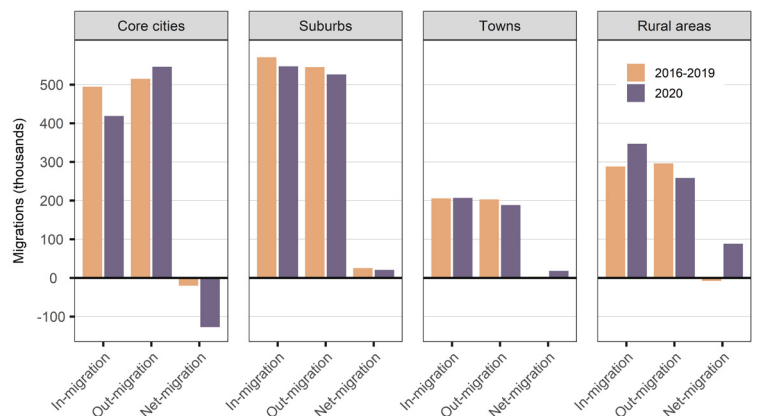


Figure 1. Internal in-migration, out-migration, and net-migration by municipal typology: 2016-2019 (average) and 2020.

Source: Authors using EVR (INE).

Nota: The classification given in the Statistical Atlas of Urban Areas of the Ministry of Transport, Mobility, and Urban Agenda has been used in order to define core cities and suburbs, but municipalities without suburbs that are not provincial capitals are excluded. The remaining municipalities have been classified as towns and rural areas using a threshold of 10,000 inhabitants.

Core cities recorded an increase of internal out-migration from 515,066 to 546,146 between the average of the period 2016-2019 and 2020 (+6%), and a reduction of internal in-migration from 494,793 to 418,704 (-15.4%). This resulted in a net migration loss of 127,442 inhabitants in 2020, compared to -20,200 during the pre-pandemic period. In rural areas, the opposite dynamic is observed: out-migration fell from 296,109 to 258,658 (-12.6%), while in-migration rose from 288,074 to 347,005 (+20.5%). This led to a positive migratory balance of 88,347 people in 2020, compared with an average of -8.034 in the period 2016-2019. Changes in suburbs and towns, however, were less pronounced.

What have been the main destinations from the largest Spanish cities?

We identified a significant increase in internal out-migration from the largest core cities between 2016-19 and 2020: from 2.7 to 3.3% in Madrid (+21.0%) and from 3.2 to 3.7% in Barcelona (+13.1%). Other cities with more than 500,000 inhabitants (Valencia, Sevilla, Zaragoza, and Málaga) recorded a moderate increase (+4.5%). However, changes in the place of residence within municipalities fell by 8.5% in Barcelona and Madrid (data published by the city councils). Hence, while population movements to other municipalities increased, they tended to decrease within core cities.

Figure 2 shows changes of internal out-migration rates from cities according to the geographical distance of destination municipalities and their population size. Out-migration to municipalities with less than 10,000 inhabitants, particularly to those located between 40 and 160 km, recorded the largest increase in 2020. Out-migration from Madrid and Barcelona to these destinations doubled in 2020, while these outflows increased by 1.5 in the other cities. Despite increasing outflows to small municipalities, these movements remained infrequent compared to those towards more populous areas. Generally, outflows to the latest also

increased compared to figures prior to pandemic, except to municipalities close to the core cities.

At the same time, a significant increase in out-migration was observed from Madrid and, to a lesser extent, from Barcelona, to other municipalities with more than 10,000 inhabitants and located more than 160 kilometres away. In the other cities with more than 500,000 inhabitants, however, these outflows lessened. This trend could be related to a reversal, probably temporary, of the dynamics of interurban distribution of qualified human capital, which usually flows into the global cities (González-Leonardo; López-Gay, 2021).

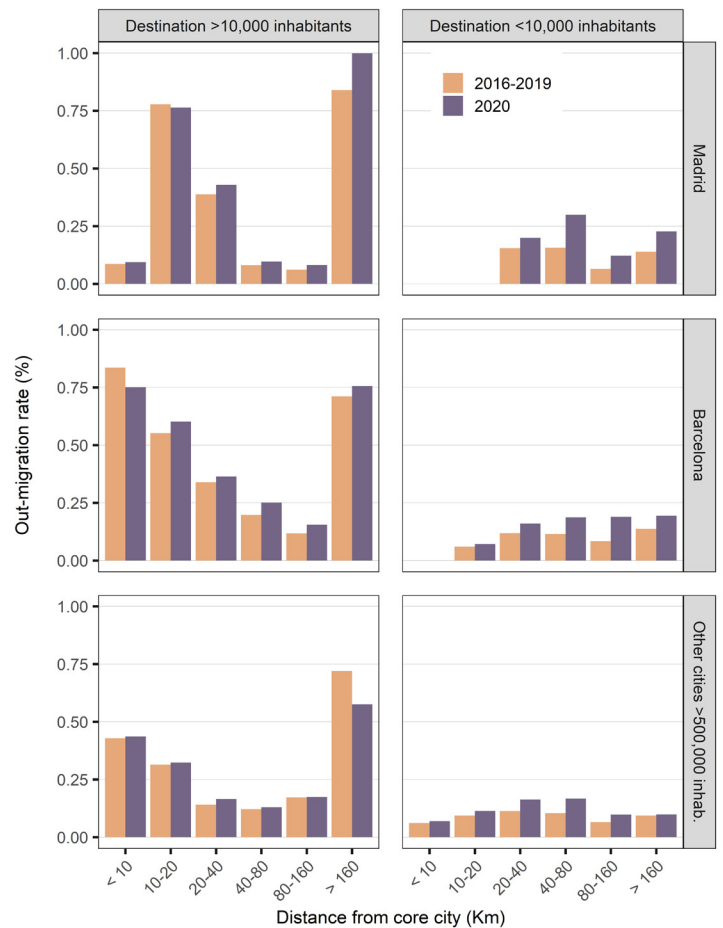


Figure 2. Internal out-migration rate from Madrid, Barcelona, and the set of other cities with more than 500,000 inhabitants, by population size and lineal distance to the municipality of destination: 2016-2019 (average) and 2020.

Source: Authors using EVR and Population Counts (INE).

Nota: The category of other cities with more than 10,000 inhabitants includes Valencia, Sevilla, Zaragoza, and Malaga.

Rural municipalities linked with big cities by territorial ties as key actors of change

We next assess the effect of the pandemic on internal migration examining the balance between in-migration and out-migration across municipalities. Broadly speaking, our study shows a certain spatial balance of internal migration flows in the period 2016-2019, although with some nuances (Figure 3). For example, there are negative balances that should be considered in rural areas of the northeast of Castilla-La Mancha, south of Aragon, and the region of Castile and León, while the suburbs of the most populated cities showed positive values. The map for 2020, however, reveals a different territorial pattern with population gain in rural areas due, on the one hand, to a decrease in out-migration and, on the other, to an increase in in-migration from the cities.

Although in-migration exceeded out-migration flows in almost all the rural villages, some significant contrasts can be observed. Rural areas linked to the largest cities by past rural to urban migration or the presence of second residences are those with the highest population gains through internal migration. The most notable case relates to rural municipalities of the Sistema Central Mountain, close to the metropolis of Madrid: the northern sector of the Province of Madrid, western of Guadalajara, eastern of Toledo, and the southern edges of Ávila, Segovia and Soria. Great population gain due to internal migration also appears in villages of the

Catalan Pyrenees and the coast towns of Girona and Tarragona, sectors that are connected to the city of Barcelona. Likewise, high rates can also be seen in the Aragon Pyrenees, which are closely linked with the population of the city of Zaragoza. Other areas showing high figures are the rural areas in the northeast of the Cantabrian Mountains, north of Burgos and near the Basque Country. Finally, other notable examples are villages in the southeast of the Iberian Mountain and some coastal towns of the Valencian Community, which are mainly but not exclusively linked with residents of Mediterranean cities.

Has the pandemic reversed rural depopulation?

The outbreak of the pandemic had a notable impact on internal migration in 2020, but this is far from representing a change in dominant mobility patterns or a reversal of rural depopulation. Most of the movements were between or within cities, as was the case before the pandemic. In addition, our evidence suggests that the changes observed are temporary. We have found that, in 2020, there was a decline in inflows to large cities and an acceleration in outflows, while rural areas recorded an increase in in-migration and greater population retention. However, the intensity of these changes has not had a great demographic impact on cities, as an increase in out-migration of between 10% and 20% in highly populated cities like Madrid or Barcelona has had little effect on their population numbers or demographic structure.

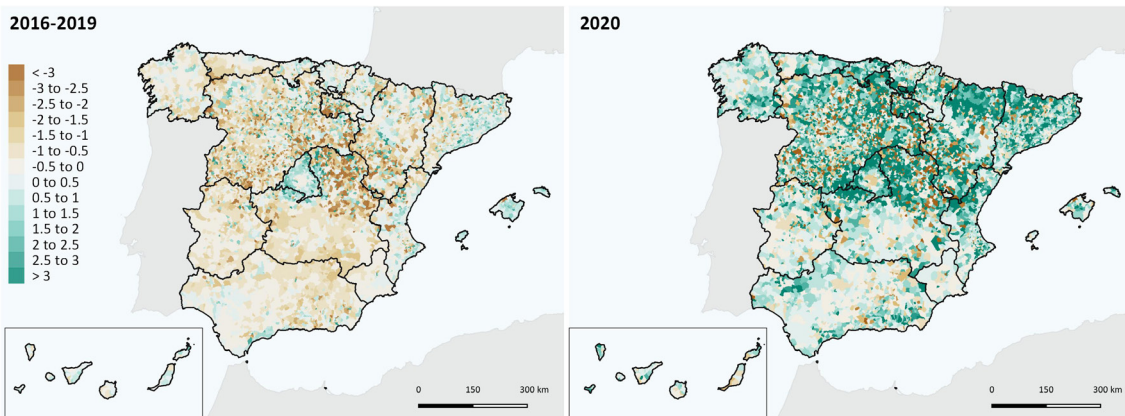


Figure 3. Inter-municipal net migration rate (%): 2016-2019 (average) and 2020.

Source: Authors using EVR and Population Counts (INE).

Yet, these changes did have a major impact on rural areas, sparsely populated places where the arrival of new residents have had a major effect on demographic dynamics. As a result of increasing counter-urbanisation movements and greater population retention, many country villages gained population in 2020, which provided a respite from the processes of rural depopulation. Positive net migration was greater in municipalities linked with the most populated cities, a connection that can occur by two main reasons. First, these are sectors that have experienced large migratory flows to urban centres for decades (Recaño, 2019). Hence, there are family and social networks and, in many cases, urban residents are owners of inherited properties in these villages. Second, part of the urban population has second homes in these rural areas which are usually environmentally attractive and within a reasonable distance from the city (López-Colás and Módenes, 2004).

However, it is likely that changes on internal migration will not be a permanent outcome. The EVR monthly data for 2020 show that outflows from rural areas and inflows to cities returned to pre-

pandemic values immediately after the lockdown. A convergence with the 2016-2019 figures is also observed in the case of out-migration from cities to rural areas in December 2020. The high incidence of the pandemic in densely populated areas, restrictions of mobility, the desire to improve housing conditions, and the expansion of teleworking might have temporarily modified the residential behaviour of the population in the early months of the pandemic, but probably not in the long term.

In order to better understand the influence of these factors in migration patterns during the pandemic, other dimensions should also be taken into account, for instance, age, life course, and socioeconomic factors. Not all social groups have access to a second home, resources for moving into better housing, or the possibility of teleworking. Finally, it should also be considered that, in some cases, changes of residence to rural areas may have been atypical registrations in second homes, making them appear as the main residence to maximise mobility during the restrictions. The publication in the coming months of 2021 EVR data and, later, of the 2021 census will allow us to test these hypotheses.

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