

Virtual special issue: Internal migration in times of COVID-19

Abstract

The COVID-19 pandemic has potentially altered the system of population movement around the world. As COVID-19 hit cities the hardest in the wake of the pandemic, apocalyptic headlines anticipated the 'death of cities'. Yet, little was known about the impact of the COVID-19 pandemic on cities and the ways it has shaped the patterns of internal population movement in and out of cities. This virtual special issue aims to consolidate our knowledge of the impacts of the COVID-19 pandemic on internal migration, discuss key lessons we have learnt so far, and identify areas for future enquiry. It brings together evidence from six different countries: Australia, Germany, Japan, Spain, Sweden and the United Kingdom, covering the pandemic in varying temporal lengths. Systematic patterns emerge. A first commonality is an overall reduction of internal migration rates during the early days of the pandemic but to a lesser degree than expected. Second, the impacts of COVID-19 leading to out-migration from cities seem to have been temporary, though evidence from Spain and Britain points to scarring effects with persistent losses in highly dense areas. Third, changes in internal migration generated small impacts on the population structure of cities but large-scale changes in small, rural and low-density areas.

KEYWORDS

counterurbanisation, COVID-19 pandemic, donut effect, internal migration, urban exodus

1 | CONTEXT

The COVID-19 pandemic has major consequences for the system of population movement around the world. Nonpharmaceutical measures, such as lockdowns, social distancing, business and school closures contributed to sharp declines in internal population movements within countries (Nouvellet et al., 2021). As COVID-19 spread globally in the early months of 2020, COVID-19-related infection and mortality were disproportionately higher in large metropolitan areas (Pomeroy & Chainey, 2020), and business closures

reduced the vibrancy and attractiveness of cities (Florida et al., 2021). At the same time, teleworking became mainstream, diminishing work- and school-related commuting (Nathan & Overman, 2020). Against this backdrop, a stream of apocalyptic headlines – 'urban exodus', 'empty cities', 'dead cities', 'ghost cities', 'deserted cities' and 'silent cities' – proliferated across the media, highlighting the impacts that the pandemic was having on large cities based on anecdotal evidence (e.g., Marsh, 2020; Paybarah et al., 2020). At the same time, these headlines pointed to evidence suggesting sudden increases in the number of people leaving cities for suburban and rural areas.

The COVID-19 pandemic seems to have amplified the effects of key centripetal and centrifugal forces that contribute to shaping the spatial patterns of internal migration. During early stages of the pandemic, COVID-19 exposed some of the key disadvantages of living in cities. High air-travel connectivity, job density and population concentration contributed to making large cities the global epicentres of COVID-19 infections and deaths in the early months (Florida et al., 2021). By November 2020, around 95% of all the reported COVID-19 infections and fatalities had occurred in cities (Pomeroy & Chainey, 2020). Lockdowns and business shutdowns stripped cities away from vibrant urban spaces and the effervescence of social interactions, pushing many into unemployment (Falk, 2020). Residents were pressured to recalculate the importance of living in large cities when faced with high housing costs and limited living space to accommodate the 'new' demands of remote working, homeschooling and daily household activities during strict lockdowns (e.g., Hernández-Morales et al., 2020). At the same time, telework diminished the need for regular commuting, and hence, preferences to live close to work (Nathan & Overman, 2020).

Novel digital technology supported through automation and artificial intelligence has also played a key role in facilitating the transition to remote activities that can potentially be conducted away from cities. Digital technologies, such as Zoom and Teams for video conferencing, instant file sharing, editing and messaging became tools for online work and education (Al-Marouf et al., 2020). E-commerce platforms, such as Amazon and Shopify have facilitated the setting up and managing of online business as well as buying and shipping products remotely (Ting et al., 2020). Coupled with virtual reality, streaming media systems like Netflix and Roku, and social media platforms such as Facebook, Instagram, TikTok and Twitter have provided some of the cultural and social effervescence of cities in the digital world (Mazzarello & Ratti, 2020). All of these identified changes and technologies were believed to have diminished the attachment to large cities in preference for larger, cheaper and low-density locations during the early months of the pandemic.

Such trends promised to significantly diminish or halt patterns of urbanisation, accelerating processes of suburbanisation and counter-urbanisation, with wide ranging implications for cities and regions. The wide adoption of remote working may reduce the need for office space in high-density areas (Ramani & Bloom, 2021). Relocating further away from jobs may imply longer commutes at least for a few days a week, increasing strain on local transport networks and potentially hacking national net zero targets (Mulholland et al., 2022). Moving to areas with limited housing supply may trigger a surge in house prices, promote gentrification and generate greater demand for local services (Rowe, 2013). Migration of young professional adults into rural and remote areas in relatively large numbers also promised to significantly alter the local population composition, slowing down ageing, raising local fertility levels and counterbalancing endemic patterns of population decline (Rodríguez-Vignoli & Rowe, 2018; Rowe et al., 2016).

Yet, compelling arguments were made against headlines speculating the end of cities. Historically, pandemics have decimated cities but they have continued to grow and play a key in national development (Huremović, 2019). By promoting agglomeration economies, cities have remained essential drivers of economic growth and prosperity (Storper & Venables, 2004). The concentration of people and firms in cities facilitates the exchange of goods, knowledge, information and ideas by reducing transportation and communication costs and fostering innovation (Glaeser, 2010). Face-to-face interaction is crucial to enhance such exchanges (Storper & Venables, 2004). At the same time, remote and rural areas generally lack the critical infrastructure and services required to support incoming urban residents. These areas do not offer the same vibrancy and sophistication of entertainment, cultural amenities and convenient services offered in urban areas. While remote and hybrid work have been embraced and will likely endure beyond the pandemic, broad connectivity is generally poor in rural and remote locations (OECD Regions and Cities at a Glance, n.d.). Additionally, not all jobs can be performed remotely, especially public-facing work in the health, education, retail, leisure and entertainment sectors (OECD, n.d.).

Thus, while speculations pointed to an urban exodus from large cities during the wake of the pandemic, arguments also suggest that changes to internal migration are unlikely to have led to a complete redrawing of population redistribution patterns within countries. Rather, the COVID-19 pandemic may have accelerated existing mobility trends, with cities expected to bounce back and remain major centres of population attraction following the pandemic. Yet, when this virtual special issue was set up in late 2021, the available evidence was largely anecdotal. Understanding the extent and durability of population movements to and from cities during the COVID-19 pandemic and their underpinning factors is key to informing spatial planning and developing appropriate policy responses.

2 | AIM

The aim of this virtual special issue is to advance our understanding of the impacts of the COVID-19 pandemic on internal migration. It brings together evidence from six different countries: Australia,

Germany, Japan, Spain, Sweden and the United Kingdom. Limited availability to location data has restricted comprehensive analysis of internal migration patterns during COVID-19. This virtual special issue is comprised of high-income developed countries for which data on internal population movements during pandemic years were available. The diversity of prepandemic internal migration patterns in terms of intensity (Bell et al., 2015), spatial impacts (Rees et al., 2016; Rowe et al., 2019), distance travelled (Stillwell et al., 2016) and age profile (Bernard et al., 2014) is well documented. Our cross-national perspective thus sought to capture this diversity but also identify systematic similarities in the impacts of COVID-19 on internal migration across countries. Additionally, we also know that there are important differences in the timing of COVID-19 waves and the way data on internal migration are collected. At the time we set up this virtual special issue, very few countries had data that would allow capturing internal population movements. We thus sought to gather evidence from selected countries that provided data of varying temporal ranges and coverage, and at different spatial resolutions, to capture the evolution and persistence of the changes in internal migration triggered by COVID-19, and document their systematic trends. The papers included in the virtual special issue used a variety of novel data sources to explore these patterns, ranging from internal migration estimates from surveys, comprehensive population registers and digital footprint data derived from mobile phone applications.

3 | SPECIAL ISSUE PAPERS

3.1 | Spain

Using granular register data, González-Leonardo et al. (2022) analysed internal migration between 8130 Spanish municipalities in 2020, compared to the prepandemic period 2016–2019. The authors show that internal migration declined by 2.5% in 2020. The highest decline occurred during the national lockdown between late March and mid-June. Internal migration exceeded prepandemic levels during the second half of the year. Results reveal unusually large net migration losses in core cities, as out-migration increased by 6.0% and in-migration decreased by 15.4%. By contrast, rural areas registered net migration gains, reversing prepandemic losses due to internal migration, since in-migration increased by 20.5% and out-migration dropped by 12.6%. In suburbs and towns, there were no major variations.

Counterurbanisation was particularly related to movements from large urban agglomerations, such as Madrid and Barcelona, to specific locations involving mountain rural areas and certain coastal towns. These municipalities are known to be popular holiday destinations and concentrate second home residences, including areas such as the neighbouring mountain villages of Madrid, those in the Pirineo mountain and coastal towns in the Mediterranean.

Unusually high levels of counterurbanisation persisted over 2020, although they seem to return to those observed before the pandemic in

December. Urbanisation movements, however, converged to pre-pandemic figures when the lockdown ended in mid-2020. Despite increasing counterurbanisation trends, movements between cities and between cities and suburbs, continued to dominate. Therefore, the pandemic does not seem to have altered the existing macro-structure of the national migration system in Spain.

3.2 | Germany

Stawarz et al. (2022) used register data in 2019 and 2020 to explore the effect of the pandemic on internal migration between 401 German counties. Results show that the intensity of internal migration declined by 5% in 2020, compared to the previous year. The largest drop was during the national lockdown from March to June, and unusually high levels of internal migration were recorded in the second half of 2020. Internal migration declined among individuals of all age groups, but the drop was higher for young adults.

The pandemic was associated with an upsurge in net migration losses for large German cities, driven by fewer inflows of young adults and continuous outflows of families leaving the main urban centers during the pandemic. In rural areas and, to a lesser extent, in hinterlands, previous net migration gains were exacerbated due to a significant decline of outflows, particularly of young adults, while in-migration decreased marginally.

The largest German cities, such as Berlin or Hamburg, were already experiencing net migration losses to their surrounding areas before the pandemic, as outflows were higher than inflows. These net losses increased during the pandemic as a result of rising outflows from these largest cities to surrounding areas. Moreover, longer distance inflows to the largest cities also decreased in 2020.

3.3 | Sweden

Vogiazides and Kawalerowicz (2022) examined the patterns of internal migration and the characteristics of outmigrants from the city of Stockholm during the COVID-19 pandemic. To this end, the authors used Swedish register data in 2020, and compared the results with the 5 years preceding the pandemic. At national level, the paper demonstrated that the pre-existing negative trend in net internal migration in Swedish inner cities was more severe in 2020, while the negative net migration rates in small cities and rural municipalities were milder.

Stockholm's inner city was the most affected, as seen in the increase in the number of outmigrants of about 1.74 times in 2020. The majority of these movers relocated to the Stockholm suburbs which experienced a substantial increase in inflows. To a lesser extent, a number of medium-sized cities and small municipalities outside the Stockholm suburbs, including traditional tourist destinations, also received more internal in-migrants from Stockholm. Surprisingly, the sociodemographic characteristics of individuals leaving the city of Stockholm were largely similar in 2020 and in the 5-year period preceding the pandemic.

3.4 | Japan

Fielding and Ishikawa (2021) made use of register data to explore internal migration between Japanese prefectures. They concluded that internal migration declined by 4.0% during 2020, compared to the year 2019, and the largest drop occurred from April to November. In 2019, only 7 of the 47 prefectures recorded net migration gains, 4 of those in the Tokyo metropolitan region (TMR), and rural and nonmetropolitan prefectures registered net migration loss, with the highest negative rates in remote rural areas. In 2020, most rural and remote regions of Japan recorded less intense population loss due to internal migration, while the largest regions showed lower gains, particularly Tokyo, where this trend persisted throughout 2020.

Changes in net migration rates were the product of both variation in out-migration and in-migration. Rates of out-migration were lower in 2020 than in 2019 for all Japanese prefectures, except in Tokyo where outflows increased by about 5.0%. In addition, all prefectures sent fewer migrants to Tokyo in 2020 than in 2019. In-migration rates declined in most regions, with the highest drop in Tokyo (-2.44%). Results reveal that the increasing number of internal migrants from Tokyo headed to prefectures within the TMR and regions further away which are known to be touristic and mountainous areas with many second homes belonging to Tokyoites.

Kotsubo and Nakaya (2022) also used register data to explore the impact of the pandemic on internal migration in Japan during 2020, compared to the period 2012–2019, but they focus the analysis on net migration rates and levels of migration effectiveness between core cities and suburbs. Results indicate that migration efficiency in the city of Tokyo drastically dropped during 2020 to the lowest level from 2012, contrasting with an upward trend between 2012 and 2019. The pandemic strongly affected the migration patterns in the TMA, with much net gain in the suburbs and decreasing positive net migration rates in the central city, particularly due to an increase in migration flows from the city of Tokyo to its suburbs. The impact of the pandemic on migration efficiencies in other urban areas of Japan was minimal.

3.5 | Australia

Perales and Bernard (2022) used data from 2001 to 2020 to assess the effect of the COVID-19 pandemic on the level, direction and reasons for migration between and within Australian states. They derive migration estimates from two surveys: the Australian Bureau of Statistics and the 2020 wave of the Household, Income and Labour Dynamics Australia Survey. Results show that COVID-19 exacerbated a long-term trend of interstate migration intensity decline in Australia by 8.75% between 2019 and in 2020. Quarterly data reveals an important decline until September 2020, followed by a rebound, mirroring changes in unemployment rates.

The decline in the intensity of internal migration during the pandemic have caused minor change in the spatial structure of

migration, despite small growth in pre-existing net losses in some capital cities due to increasing outflows, such as the Melbourne Metropolitan Area, and a decrease in negative net rates in regional areas of certain states driven by a decrease in out-migration, for instance, in Western Australia. Growths in net losses in the capital cities were concentrated among working age groups of 25–64 years old and, to a lesser extent, among populations aged 15–24.

Declining internal migration was driven by short- and long-distance movements between capital cities and regional areas. Declining migration was partly attributed to a reduction in involuntary migration, a loss of labour market dynamism during the pandemic, such as fewer people changing jobs, and increasing teleworking. Evidence was also provided of a reduction in the probability to move among tertiary-educated individuals between 2019 and 2020. The authors conclude that the effects of COVID-19 on internal migration were minimal by the end of 2020, and will likely be short-lived.

3.6 | Great Britain

Drawing on 21 million observations from Meta-Facebook users, Rowe et al. (2022) analysed spatial patterns of population movement across the rural–urban continuum in Britain from March 2020 to August 2021. This is the only study in this virtual special issue analysing the patterns of internal population movement beyond 2020. Results reveal an overall decline in population movement during periods of high stringency measures, with the most densely populated areas reporting the largest reductions. During these periods, the authors find evidence of higher-than-average mobility from high-density population areas to low-density areas, suggesting increasing movements away from large cities.

However, results show that variations were temporary. Overall mobility levels returned to those observed before the pandemic after the easing of nonpharmaceutical interventions. Following these interventions, there was a reduction in movement to low-density areas and a rise in mobility to high-density agglomerations. These findings reveal that COVID-19 generated shock waves leading to temporary changes in the patterns of population movement in Britain, but it has not significantly reshaped the prevalent structures in the national pattern of population movement. In mid-2021, internal population movements sat at an intermediate level between those observed prior and early phases of the pandemic.

4 | CONCLUDING DISCUSSION

In bringing together all the papers that Population Space and Place has so far published on the impact of COVID-19 on internal migration, this virtual special issue provides the opportunity to reflect on how much commonality there is in the experiences of the countries represented in this set. As reflected in the summaries of the papers' findings above, there is an impressive degree of consistency between their stories

despite the six countries varying considerably in size, population density, settlement history, migration rates and social behaviours. Also, in large part, the main findings correspond to those of research published elsewhere (for a review, see Champion, 2023), allowing a fair degree of consensus to emerge about this topic and arguably enabling more accurate expectations of the effects of any future pandemics. Much more, however, needs to be explored. The medium- and long-term impacts of the pandemic are yet to be established. Most of the papers included in the special issue offer evidence only on the first pandemic year of 2020. An exception is Rowe et al. (2022), who reveal that mobility patterns have bounced to a middle ground between prepandemic levels and those observed in 2020. However, new evidence emerging from Spain suggests a different picture of persistent net migration losses in large cities over 2021 (González-Leonardo et al., 2022; González-Leonardo & Rowe, 2022).

The first main area of commonality we observed in the papers included in the Special Issue is in the reduction of internal migration rates during the early days of the pandemic. This is regardless of the severity of the nonpharmaceutical measures imposed by governments, notably the various degrees of lockdown. The size of the decline varies by country and by type of population movement, ranging from a drop of 8.75% for Australia's inter-state moves between 2019 and 2020 to 2.5% for intermunicipality migration in Spain, with declines of 4%–5% quoted quite widely in the set of papers. While this effect is perhaps rather obvious bearing in mind lockdowns which would be expected to subdue labour and housing market search, it stands very oddly as a context within which a new or reinforced 'urban exodus' might be taking place. Given the severe nature of the government restrictions in some countries and the length of time that they were in operation in 2020, the reduction in migration might have been thought to be greater than this general level as newspapers were anticipating deserted cities. Though large variability has also been observed on the impacts of COVID-19 on international migration (González-Leonardo et al., 2023; González-Leonardo & Spijker, 2022).

One potential explanation for migration rates falling by less than might have been expected in 2020 is the 'urban exodus' that was given such prominence in media coverage during the early stages of the pandemic. The papers in this special issue all provide some evidence of this trend: for Spain, unusually large net migration losses from the largest cities like Madrid and Barcelona; for Germany, an upsurge in outflow from the cores of its large cities including Berlin and Hamburg; for Sweden, a net outflow from the inner cities especially Stockholm's; for Japan, a 5% increase in outflow from Tokyo; for Australia, some increase in outflow from its capital cities; and for the United Kingdom, signs of a smaller population presence in the major cities. Similarly, there is a fair degree of consistency in the types of areas gaining population as a result, these being cited as the suburban and outer parts of the same cities (as in the 'donut effect' noted for some US cities, see Ramani & Bloom, 2021) along with more distant moves to rural areas, especially those which are scenically attractive and traditionally serve as second-home locations and holiday destinations.

Yet an even stronger explanation for the hit taken by large cities during the early stages of the pandemic relates to the falling volume of their inflows. Normally the main source of population growth for large cities is the influx of young adults, drawn out of their home areas by the lure of greater job opportunities and faster career progression (as portrayed in the 'escalator model,' see Champion & Gordon, 2019) as well as for higher education (Champion, 2022). This slowdown is seen particularly clearly in the case of Japan, where in 2020 Tokyo recorded reduced in-migration from every other prefecture, with a concomitant reduction in the exodus from the most rural and remote parts of the country that helped to boost their overall growth rate or lessen their normal rate of loss. Similarly, in Germany, the largest reduction in inter-county migration was registered by young adults. This is much more in keeping with the overall reduction in migration rates observed in all these six countries.

A further element of consistency emerging from this set of papers is the apparently short-lived nature of the pandemic's impact on internal migration rates. Even though most papers contain data beyond 2020, all those papers that have been able to split that year into monthly or quarterly time periods note a rebound in rates before the end of the year. For both Spain and Germany, the reduction in overall migration rate was found to have been concentrated in the period March to June, while for Australia and Japan, the rebound was underway by September and November, respectively. In this context, however, a word of caution is advisable. There is a suspicion, voiced most explicitly here by the paper on Germany, that part of the reduction in rates early on in the pandemic may have been a statistical artefact arising from migrants not being able to register a change of address as quickly they might otherwise have done because of COVID-19-related disruptions to registration systems – a possibility that clearly merits further investigation as systems return to normal. Yet, the paper on Britain provides evidence of a rebound in population movements as COVID-19 restrictions began to be lifted in March 2021.

Whether or not the statistics can be trusted, there seems to be little evidence of the pandemic causing a fundamental change in internal migration and residential mobility behaviour. This certainly appears to be the case if the real-estate media can be believed, as before the end of 2020, they were already heralding the return to the city, even while continuing to extol the benefits of living in rural communities or along the lake and sea shore. For the six countries featured in this special issue, the main emphasis in the findings is on the change in quantity, rather than of quality, during the early stages of the pandemic. Even where an 'urban exodus' is noted, this is seen to be due primarily to the acceleration of the usual centrifugal movements of families with children and older people nearing retirement. For instance, for Sweden, there appeared to be no noticeable change in the types of people leaving the cities. For Spain and Japan, the patterns of movement were found to have remained largely the same, and indeed in both cases, the main quantitative impacts early in the pandemic were limited to the two ends of the settlement hierarchy, with much less change for the smaller cities and towns in between.

What the evidence in these papers seems to add up to is that, for all the initial speculation about the 'death of the city' and so on, the COVID-19 pandemic has resulted in just a temporary interruption of business as usual in internal migration behaviour. With the apparent reduction over time in the virulence of its various strains, aided by the success in developing medical countermeasures, the expectation would be that the data for 2021 and subsequent years will see a return to the prepandemic rates and patterns. Yet, we know that for Britain, some effects have persisted with higher levels of out-mobility from high-population density areas in 2021. Emerging evidence from Spain points to a persistent pattern of high levels of in-migration to rural areas and out-migration from cities (González-Leonardo et al., 2022). In any case, more evidence is needed and future work should seek to establish the extent of persistence of changes to migration levels and patterns during 2020. One aspect to explore concerns how far the original moves were anticipated as temporary by their participants, such as those moving to a family's second home or renting holiday accommodation. Even in noncity areas with more vacant housing, it takes time to search for and then go through the legal steps of home purchase in normal times, let alone when the process is hampered by lockdown restrictions. Meanwhile, young adults who had left cities to return to their home areas early in the pandemic when the hospitality sector shut down and universities moved to online teaching would likely be among the first to move back as life started getting back to 'normal'.

At the same time, even a short-lived period of disruption can have longer-term consequences. As fertility research has shown, a delay in the birth of a first child can reduce ultimate family size. In migration studies, moving or staying put at a particular stage of the life course has been observed to affect future migration behaviour. In the context of COVID-19 and internal migration, many of those who moved during the early stages of the pandemic may have found themselves in a location that they had not expected to be in; that is, in a different context considering their future residential mobility options. Similarly, for the apparently much larger number of people who postponed a move because of the pandemic, they may have had the opportunity to re-evaluate their plans and possibly abandon their original intention or choose an alternative migration trajectory. Qualitative research can help to establish the extent and implications of such behavioural changes.

A key question arising from this area of research is whether COVID-19 may have reduced the attraction of living in the more congested neighbourhoods in cities and whetted people's appetite for greener and more spacious environments, including the outer suburbs and settlements built along 'garden city' lines as well as the deeper countryside. One aspect that had already generated considerable attention before COVID-19 is the increasing use of information communications technology for home-working, reducing the need for the daily commute and potentially opening up a much large swathe of territory for certain occupation groups to consider as residential choices. This development has been greatly accelerated by the pandemic, with the wholesale shift to technologies like Zoom and Teams for online meetings, leading to widespread reluctance to

return to normal patterns of office working according to the media. While the immediate effect of this can be readily gauged from data on transport usage, the effects on residential preferences are likely to take longer to emerge, as the housing market takes time to adjust to any related changes in the geography of demand.

Testing for any such longer-term effect, however, presents a much trickier research task because of the need to try and disentangle this from the many other drivers of migration rates and patterns operating concurrently. Probably most relevant among these is the business cycle with its well-documented effect on labour and housing markets over periods averaging around a decade long, not least because directly or indirectly the pandemic itself has resulted in a decline in many areas of economic activity – what Fielding (2012) terms the ‘conjunctural’ level of migration drivers. But these are embedded within ‘restructuring’ and ‘deep structural’ drivers with medium-term and longer durations respectively, of which key ones for migration studies include population ageing, rising participation in higher education, later partnership formation and child-bearing, greater ethnic diversity, increasing female participation in the labour market, the growing proportion employed in professional and managerial occupations and a decline in rates of migration and residential mobility for most ages and types of people (Green, 2017). Candidate factors beyond these include Fielding and Ishikawa’s (2021) observations on the effect on migration of change in the spatial division of labour and the possible dawning of a ‘postglobal era’.

Looking ahead to a research agenda for studying the effect of COVID-19 on internal migration, clearly there are multiple opportunities but also challenges. Perhaps the most fundamental is the continuation of the statistical monitoring of the rates and patterns beyond 2020 and extending the number of case-study areas, as well as checking for the effects of any disruption of the recording systems caused by lockdown. We now have a variety of different digital sources which should enable regularly monitoring internal population movements (Rowe, 2021). A second priority requires more of a qualitative approach to investigate the extent to which the pandemic altered people’s migration plans, whether by bringing forward or delaying intended their moves or prompting a complete change of plan, and also follow up to see whether any such change altered their future residential preferences or other aspects of their life course. In particular, given the issues raised for theory and policy alike by the widespread decline in rates of migration and residential mobility, there is the question of whether the fairly consistent fall in rates during the early stages of the pandemic and their subsequent rebound – accompanied by people being prompted to review their current circumstances – will have had the overall effect of reinforcing long-term decline or possibly help to stem it. Research on trying to isolate that effect from the roles of all the other various drivers, just mentioned, has the potential of advancing the study of migration on all fronts – theoretical, methodological and statistical – as well as providing a firmer basis for anticipating and planning for the impact of any future pandemic or other system-wide shock.

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DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

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