Between Flows and Places: Using Geodemographics to Explore EU Migration Across Neighbourhoods in Britain

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Abstract

During the past decade, the growing significance of EU migrants in Britain has attracted considerable media and policy attention. While the rhetoric and public policy debate has focused on national and regional levels, surprisingly, little is known about the emerging settlement patterns of EU migrants at the local level. This paper sheds some light on this important issue by exploring the sociospatial characteristics of the places of destination/residence of EU migrants and, in doing so, reveals the extent to which the concentration-dispersal framework applies to their settlement pattern. To evaluate whether and in what ways EU migrants have settled across neighbourhoods in Britain, 2001 and 2011 census estimates as well as geodemographic data are used. The findings suggest that EU migrants have consolidated their national presence in Britain because of their growing numbers and unprecedented geographical dispersal. While EU migrants' settlement does not seem to translate into strong clustering patterns, diverging socio-spatial experiences are found among the largest groups (Polish, Italian, Portuguese and Spanish).

Keywords: EU migrants, socio-spatial experiences, geodemographics, Britain

Introduction

The enlargements of the European Union since 2004 onwards[1] and the uneven effects of the economic crisis have had a transformative effect on intra-European migration, giving shape to significant east-to-west and south-to-north mobility patterns. Although EU migration to Britain has traditionally been important due to proximity to fellow EU members, with a long history of population interchange (Salt 2012), only from the mid-2000s has Britain become a top destination for EU migrants, receiving around 1.1 million from accession countries, as well as a growing number from the hardest hit economies of southern Europe (see Figure 1).

[Figure 1 about here]

With no restrictions at borders, a new geography of EU migration in Britain has emerged. However, while the sheer volume of EU in-movement to the UK has prompted various migration scholars to describe the main push (unfavourable) and pull (attracting) factors at the macro-level or at best meso-level (Garapich 2008; Recchi and Favell 2009; Arango et al 2009; Peixoto et al 2013), little is known about crucial micro-level aspects, namely the emerging settlement patterns of EU migrants across neighbourhoods in Britain. Of particular interest is the socio-spatial arrangements of EU migrants in a context which is experiencing a combination of significant political, economic and social transformations. The substantial decline of manufacturing industries and the rise of service industries and intensive agriculture have coincided with structural changes of the institutional landscape in the form of economic

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[1] The first EU enlargement in 2004 included 10 countries (A8 countries): Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia). Malta and Cyprus also joined in 2004 but their income per capita was closer to the EU average. The second EU enlargement in 2007 included 2 countries (A2 countries): Bulgaria and Romania.

deregulation and welfare state reform. More importantly, these changes are creating new socio-spatial divides between highly educated, well-connected and well-paid knowledge workers on the one hand, and high and low status migrants[2] poorly paid and sometimes unemployed workers on the other (Sassen 1991; Castells 1989). The literature has often argued that such disparities are clearly distinct when social and economic position become spatially imprinted on neighbourhoods, 'marking out geographic boundaries between, what could be seen as, the "haves" and "have-nots" ' (Rath et al 2013: 2). Traditionally, in order to capture different aspects of this phenomena, a plethora of segregation measures have been developed. However, the ways in which place both informs and is impacted on by new migrants remain under-researched in Britain. One can argue that the focus on segregation has left a gap in our understanding—about connections to place in settlement context.

Although there are some exceptions such as recent studies (mostly qualitative) which predominantly provide information on the settlement of accession migrants (Lymperopoulou 2013; White 2011; Robinson 2010; Phillimore et al 2008), work which specifies the type of places and examines the settlement patterns of both eastern and southern European at the same time are virtually inexistent. This paper attempts to fill this gap by providing a comparison of the socio-spatial experiences of the largest national group of accession nationals (Polish), and the three most numerous national groups from southern Europe (Italian, Spanish and Portuguese) currently arriving to Britain. In doing so, this work contributes to the existing literature in two ways.

First, in policy terms, it is clear that a better understanding is needed of the neighbourhoods of residence of EU migration as these have become the foci of serious political and social concern in recent years. Although there is little hard evidence regarding problems in community cohesion as a result of EU migration, it is increasingly apparent that the rapid settlement of EU migrants has spawned some negative attitudes among natives, especially where presence of newcomers has been felt more significantly demographically, and particularly from those at the bottom of the socioeconomic ladder whose occupational characteristics mirror those of the immigrants (HM Government 2014). Methodologically, this requires new and more subtle understandings of the geographies of immigration in Britain, thus it seems appropriate to offer new ways of exploring rich census data for the analysis of socio-spatial experiences of EU migrants.

Second, since EU migration is explained and indeed influenced by the global and transnational processes unfolding in continuously changing urban and rural environments, the adoption of spatial assimilation theory, 'with the clustering of some ethnic groups reflecting the first stages of its process of concentration followed by dispersal' (Johnston et al 2002: 609) requires caution by scholars of EU migration. Although these well-established dynamics have provided the backdrop to the understanding of immigrant settlement processes and their spatial adjustment to the host society, it seems that this is not the whole story in recent years, both in Britain and elsewhere. The growing availability of low-cost and low-barrier forms of transportation and the rise of communication technologies mean that some benefits of residential concentration do not in fact require clustered settlement, thus contributing to the formation of heterolocal communities (Zelinsky and Lee 1998). Interestingly, these perspectives appear to be growing in importance not only in predominantly urban

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[2] The term 'low status' rather than 'low skilled' is used here because many low status jobs are actually filled by relatively highly skilled migrants.

environments but also, increasingly, in rural areas. In addressing these two issues, the paper focuses on two important questions:

1. What are the geodemographic characteristics of the places of destination/residence of EU migrants?
2. And to what extent does the concentration-dispersal framework apply to current EU migrants in Britain?

The remainder of the paper proceeds as follows. The next section describes the context of EU migration and settlement in Britain. The following section discusses the data and measures, including a description of the geodemographic classification used and its rationale. The next section presents results from the geodemographic analysis and highlights the main socio-spatial characteristics of the destination/residence areas of EU migrants in 2011, and the major residential changes since 2001. A conclusion and discussion follows.

The Context of EU Migration and Settlement in Britain

The relatively recent EU migration to the UK from eastern Europe and the sudden rise from southern European countries are generally conceived as galvanising factors for labor market adjustment (Recchi 2008; Recchi and Favell 2009; Zimmerman 2009; OECD 2012). New dynamics of labour market deregulation combined with high levels of flexibility are particularly evident in Britain, where growing reliance on migrant labour from the rest of the EU is now undeniable (Ruhs and Anderson 2010). Some scholars (Tamas and Munz 2006) have noted that such demand for EU labour migration has increasingly developed as 'complementary' and 'substitutional' to the local labour force. While the 'complementary' effect has been highlighted by Rogaly (2008) with the intensification of agriculture, the imperfect 'substitutability' is represented with both routine and professional 'servicing' industries where employers find it difficult to source labour regardless of prevailing economic conditions (Findlay et al 2010). These are, therefore, very different EU migrants which, in terms of labour mobility, mean the co-presence of high-skilled as well as low and high status migrants. Of course, geography and economics are intertwined and as Sassen (1991) argues in her classic text 'Global Cities', urban environments are flexible and robust enough to allow this socio-economic diversity which results from immigration. However, more than any time in the past, EU migrants seem to be consolidating their national presence increasingly beyond cities.

Indeed, high-skilled migrants continue to concentrate in London but low and high status migrants are now looking outside traditional areas of urban settlement, transforming once homogeneous and conservative areas (Green et al 2007; Stenning 2006). This is partly because the EU migrant dispersion has been accompanied by and facilitated changes in the industrial distribution of employment across Britain. For instance, EU migrants—mainly from Poland, the Baltic States, and Portugal—have been used to fill low status jobs particularly in agriculture, horticulture and food processing and packing. The expansion of these industries in Britain, which is linked to the dominance of large transnational food suppliers/retailers, can therefore be seen as largely responsible for the lure of EU migrants to districts other than predominantly urban settlements. Since 2004 onwards, the spatial impact of EU migration has become increasingly pivotal for different parts of the territory and economy (McCollum and Findlay 2015; Home Office 2009), including London (the star economic performing city); small towns and mid-sized cities (for instance to work in construction); coastal and other leisure-centred localities (where they might engage in

hospitality and catering services); and rural areas (usually for short-term jobs in agriculture and food processing). This economic orientation of EU migration across Britain is noticeable at local authority level (see Figure 2), evidencing a widespread geographical dispersal for some groups (e.g. Polish, and to a lesser degree, Portuguese) coupled with the relative concentration of others (e.g. Italian and Spanish).

[Figure 2 about here]

Because much of the EU migration dispersal is occurring fairly quickly and towards homogeneous contexts with little experience of immigration, it is not clear whether conventional approaches such as spatial assimilation are suited to portray the current socio-spatial experiences of new migrants from the EU. Within this context, although evidence to date in Britain has suggested the overall importance of the concentration-dispersal framework (Johnston et al 2002), with complete diffusion of residence over time (assimilation), the coexistence of concentration and immediate dispersal patterns after arrival demands alternative frameworks to complement and/or understand the settlement of EU migrants across neighbourhoods in Britain. One potential framework might be heterolocalism. According to Zelinksy and Lee (1998: 285):

Heterolocally inclined individuals and families currently enjoy a much greater range of location options in terms of residence and also economic and social activity than anything known in the past. They become heterolocal by virtue of choosing spatial dispersion, or at most a modest degree of clustering, immediately or shortly after arrival instead of huddling together in spatial enclaves.

However, heterolocal tendencies might be only one part of the story as choice is being exercised within important constraints too. Studies so far suggests that EU migrants from accession countries live predominantly in disadvantaged and deprived neighbourhoods, generally characterised by poor housing, high levels of unemployment, limited service provision and poor local amenities (Lymperopoulou 2013; White 2011; Robinson 2010; Phillimore et al 2008). Nonetheless, the evidence to date should not lead us to the assumption that all EU migrants live in such neighbourhoods as this will probably result in one size fits all characterisation, and the notion that all EU migrants are poor.

At first sight, the settlement pattern of EU migration might not seem different from post-war migration to Britain, with immigration still predominantly choosing urban areas to locate to. Nonetheless, it is important to appreciate that previous immigration, particularly from the New Commonwealth, was clearly characterised by populations clustering in declining and unpopular inner-city areas in the more prosperous South East and East and West Midlands (London, Birmingham and Leicester), as well as in West Yorkshire (Leeds/Bradford) and Lancashire (the Greater Manchester Area), where labour shortages were more acute. Although the gradual if slow dispersal of all the communities contributed to de-segregation (Finney and Simpson 2009) exclusionary forces played a crucial role in reinforcing immigrant concentration and greatly contributed to the existing geographies of racialised groups in Britain as mutual support between people of similar background was critically important for accessing material necessities, including housing (Phillips and Harrison 2010). In the current context of immigration, while a replication of the historical processes that bring about the asymmetric population distributions in the first place is important, the accommodation of growing numbers of high-skilled and (mostly) middle-class migrants from the EU (Verwiebe 2008; Scott 2007) whose main destinations are increasingly diverse

suggests that the emerging settlement patterns now have a different array of answers than the ones which shaped earlier analyses.

It has been suggested that these new forms of immigration derive from new space-time flexibilities which reflect the globalism of labour, including the emergence of a new 'migrant division of labour' in the 'global city' (May et al. 2007) as well as a new suburban and rural cosmopolitanism (Popke 2011; Jentsch and Simard 2009). In this regard, the unprecedented geographical dispersal of EU migrants across Britain represents a considerable turnaround from previous migration patterns. Champion (2007), for instance, observed that while most of the differences between city and countryside in economic structure and occupational composition were diminishing in the 2000s, urban-rural gradients were, in fact, steepening for some key demographic characteristics like age and ethnicity.

In the age of globalisation and migration, the residential behaviour of EU migrants suggests something distinctive about this group leading to the paradox of rising levels of regional spatial integration, despite their late arrival and exceptional population growth during the 2000s. Therefore, although it is widely acknowledged that the spatial assimilation approach has, over the past decades, proved to be one of the most robust and reliable frameworks through which to understand the accommodation of migrants (Massey 2015), the puzzle for new research is to examine whether traditional narratives in terms of migration settlement need to be rethought. While the new face of intra-European migration is, and should be, distinguished from previous accounts on international migration (Favell 2008), in this paper it is argued that EU migration is a significant agent of both urban and rural socio-spatial transformation because of its pace and the sheer number of persons and places involved.

Crucially, this also means that traditional measures of spatial incorporation such as segregation indices based on the local proportion of population subgroups are likely to become less relevant with growing dispersal and the subsequent diversification of places of settlement for EU migrants. It is worthy of note, however, that residential location is still a powerful indicator of socio-spatial experiences and socio-economic integration prospects. In fact, the social and material context has often been identified as critical to the experiences of migrants; thus, considering the characteristics of places is still seen as an important determinant for social exclusion and inclusion (Hickman et al. 2008; Dorling et al. 2007). Using the geodemographic characteristics of places of EU destination/residence offers one way of evaluating this, as they can give valuable insights into how the population is socio-spatially sorted by residential location.

Data and Measures

In addition to the National Insurance Numbers (NINo) from the Department for Work and Pensions (DWP) used in the initial sections, this paper uses 2001 and 2011 census data from the Office for National Statistics (ONS) and General Register Office of Scotland (GROS) to undertake the main analysis, which is to examine the key socio-spatial characteristics of EU migrants from Poland, Italy, Portugal and Spain by where they live.

While NINo registrations have increasingly gained currency among users of migration statistics (ONS 2009; Boden and Rees 2010) and are suitable for national and sub-national analyses of recent intra-EU migration, they offer insufficient geographical detail for small area analyses such as the geodemographic profiling of EU migrants in Britain. Alternatively,

census datasets offer at least two different ways in which the settlement of EU migrants can be measured for very small geographical units such as the census output areas. First, the census records information of the usual resident population who were born outside Britain, and therefore immigrated at some point in the past, including migrants who entered the country 1 year prior to census day (29 April 2001 and 27 March 2011). Of course, one issue is that the length of residence can vary considerably. While some migrant groups such as the southern European, in particular the Italian, were well-established before the 2000s, the arrival of EU migrants has clearly taken place during the past decade (see Table 1).

[Table 1 about here]

Second, the census also has information of people who hold a non-UK passport, which is taken to indicate a non-UK or foreign national. In this study, consideration has been given to this definition too. However, since citizenship can change over time, it is clear that the more useful way of presenting information of EU migrants is by country of birth. Therefore, country of birth data for Polish, Italian, Portuguese, Spanish and those born in the UK is derived from census question 9, which asks 'What is your country of birth?' Table 2 displays the population totals for the selected EU migrants and the UK-born population in Britain for years 2001 and 2011. The figures for 2001 and 2011 represent the number of individuals from each country of birth in which the analyses are based.

[Table 2 about here]

For the geodemographic analysis, no other data source comes close to the census estimates at output area (OA) level. The OA census geography is well suited for this study because these areas are used for the construction of the Output Area Classification (OAC) from ONS, and the lowest geographical level at which census estimates are provided. In addition, they are designed to have similar population sizes (the minimum OA size is between 40-50 resident households and between 50-100 resident people) and conceived to be as socially homogeneous as possible based on tenure of household and dwelling type (Martin 2002; Cockings et al 2011). For the 2011 Census, there are 227,759 OAs in Britain (171,372 in England, 46,351 in Scotland, and 10,036 in Wales). Changes to the OA geography between 2001 and 2011 are minimal (ONS 2012; GROS 2014), which allows for consistent comparisons of small area data from the last two censuses.

Thus, the use of OA data with country of birth detail is key for the geodemographic profiling of recent EU migrants. Geodemographics is based on cluster analysis, an area classification technique which allows different spatial objects to be classified such as neighbourhoods or small areas. Normally, the final result is a classification of neighbourhods or small areas into clusters with homogeneous characteristics, from the traditional socio-economic indicators to demographic structure to housing morphology. Therefore, the use of geodemgraphics allows us "to capture the important socio-economic dimensions of and differences between neighbourhoods" (Harris et al 2005: 26).

The geodemographic classification used in this study is the OAC, which is freely available from the Office for National Statistics (ONS), and complements commercially available classifications. The OAC places each UK Output Area into a group with those other OAs that are most similar in terms of census variables. A total of 167 socioeconomic and demographic variables were used to cover the following dimensions: demographic structure, household composition, housing, socio-economic character, and employment. In this classification,

strongly correlated variables were removed to avoid the duplication of particular factors, and a three-tier (hierarchical) classification was derived using the algorithm k-means for data clustering (for a detailed description of the methodology, see ONS Methdology Note, 2014). Table 3 provides a description of each category included in the three-tier classification with eight supergroups, 26 groups, and 76 subgroups. As can be seen in Table 3, geodemograhpic classifications are normally created using the rich social characteristics for small areas that are only available from the census, which means they can provide a relative in-depth spatial characterisation of where different population groups live, including migrants, which is, of course, particularly useful for this study.

There are different ways in which one can measure the settlement of new arrivals. The intent in this paper is to employ new means to help us better understand the fundamental socio-spatial processes at work in residential processes using tools which are inherently spatial. For this purpose, geodemographic classifications are used to gain new and more subtle understandings of the micro-geographies of immigration. To date only a few studies have employed a similar approach to examine, for instance, new exclusionary urban forms at the neighbourhood level for different populations (Wright et al. 2011; Mateos and Aguilar 2013). Using geodemographics is part of a growing academic interest in understanding population and social phenomena spatially beyond aspatial single-index summary measures. Although segregation indices are still useful summary measures to account for the spatial arrangement of populations, they usually provide little information about the specifics of, and factors shaping, the varied experiences of migrants or ethnic groups at neighbourhood level. Since contemporary immigration is characterised by the growing diversity of peoples and places involved, new approaches are needed to explore the socio-spatial factors that can draw together new immigrants from diverse backgrounds across space. For this purpose, using cluster classifications for the smallest areas can be useful to capture the complexity or fragmented new forms of segregation. Indeed, using a typology of areas also means adopting a view of segregation that sees it as the concentration of individual groups in some places more than others. However, the advantage is that geodemographic classifications inject geography into the study of segregation and do so at a neighbourhood scale, which enables to reveal whether or not there is increasing diversity in the settlement patterns of EU migrants for the smallest geographical level at which census estimates are provided. Classic indices of segregation such as the widely used dissimilarity index (Massey and Denton 1988) are often applied to these small area data but only to compute what is, in effect, an average for the study region.

Of course, there are also inherent limitations to the approach used in this paper. Most importantly, there is undoubtedly the risk of falling into the trap of 'ecological fallacy' by assuming that the data applies to everyone in the area. Nevertheless, this type of simplification could be argued as necessary because characterizing multidimensional local information is not only computationally demanding when it is used for an entire set of small areas in a given country (227,759 OAs in Britain), but the tools for manipulating this information are overly complex. Therefore, geodemographic-based narratives are seen as a purposeful exploratory approach in this analysis, the main strength of which is to display and facilitate a genuine neighbourhood portrayal of the places of destination/residence of EU migrants in Britain.

[Table 3 about here]

Results

This section describes results from the analysis between the destination/residence of EU migrants from selected European countries (Poland, Italy, Portugal and Spain) and the main socio-spatial characteristics of the neighbourhoods where they live using the three-tier OAC from ONS. For the sake of comparison, geodemographic profiles of EU migrants are presented along with those from the UK-born populations.

Table 4 displays the percentage distribution of each EU migrant and natives across all small areas in Britain using the supergroup classification, with eight classes. This classification provides the most generic description of small areas. As expected, the results reveal that EU migrants have a predominantly urban settlement. Indeed, for most immigrants urban and suburban areas still represent the original point of settlement. However, the large-scale movement of EU migrants into many parts of rural parts is clearly noticeable, and could represent one of the most important and least anticipated demographic changes in Britain as a result of recent immigration. Although the presence of Spanish (4.3%), Italian (3.6%), Portuguese (3.0%) and Polish (2.9%) in rural areas is still relatively small, their total share in both rural and urban areas is already larger than that of ethnic minority groups with more established networks in Britain. For instance, a comparison of the percentage of usual residents living in urban and rural areas by ethnic group (excluding White British) in 2011 (ONS, 2013) clearly reveals how the 'White Other' ethnic group, which predominantly captures all EU migrants, was the largest of the ethnic minorities in both rural (1.9% of the rural population) and urban areas (5.0% of the urban population). In contrast, Indians were the second most common ethnic minority in urban areas (3.0% of the urban population) and the third most common in rural areas (0.4% of the rural population), whereas Pakistanis were the third most common ethnic minority in urban areas (2.4% of the urban population) but just a minority lived in rural areas (0.1% of the rural population). This is not surprising as the settlement of the 'White Other' in Britain is also linked to rural industrial restructuring (especially in food processing) and, more generally, to a rapidly globalizing agro-food system.

The results also indicate how there are significant differences in relation to where EU migrants gravitate within the urban environment. For instance, while about one-fifth of Spanish (20.9%) and Italian (18.4%) reside in cosmopolitan neighbourhoods, Polish (8.7%) and Portuguese (10.7%) are less likely to live in those urban environments, although their representation is higher than the average UK-born (3.8%). The populations in these cosmopolitan environments are more likely to live in flats and communal establishments, with a higher proportion of single adults and households without children than nationally. These areas also feature an over-representation of full time students, with workers being more likely to be employed in the accommodation, information, communication, and financial related industries.

[Table 4 about here]

The results suggest that a significant proportion of EU migrants from southern European countries reside in ethnicity central neighbouhoods, albeit there are some important differences between the groups under consideration. For example, while nearly one-third of Portuguese (29.4%) and over one-fifth of Spanish (23.9%) and Italian (21.3%) live in these urban areas, Polish (14.9%) are slightly less likely to live in these neighbourhoods. The

populations living in these areas are predominantly located in the denser central areas of London, with only a few other inner urban areas across the UK having smaller concentrations. In these neighbourhoods, residents are also more likely to be young adults, with a lower proportion of households having no children or non-dependent children. Other features of this supergroup are the higher proportion of the residents who use public transport to get to work, and the fact that unemployment levels are higher than the national average.

The results also indicate that the Polish group is clearly more likely to live in multicultural metropolitan areas, where nearly one-third of all their residents live (34.9%). While a significant proportion of Portuguese (26.1%) also live in these areas, Italian (20.2%) and Spanish (16%) appear to be more evenly distributed between these neighbourhood settings, the cosmopolitan and ethnicity central neighbourhoods. Multicultural metropolitan areas are largely concentrated in the transitional areas between urban centres and suburbia. The population of this supergroup tends to live in terraced housing that is rented (both private and social) and an above average number of families with children (some who already attend school or college) live in these neighbourhoods. The level of qualifications in these settings is just under the national average with rates of unemployment being above the national average. The population resident in multicultural metropolitan areas is over-represented in the transport- and administrative-related industries.

About one-sixth of the EU migrants under consideration can be considered as urbanites (from 12% Portuguese to 16.7% Spanish), which is less than the average UK-born population who nearly represent one-fifth (19%). Neighbourhoods with urbanites are mostly located in urban areas in southern England and in less dense concentrations in large urban areas elsewhere in Britain, and their residents are more likely to live in either flats or terraces that are privately rented. In these neighbourhoods, those in employment are more likely to be working in the information and communication, financial, public administration and education-related sectors, with unemployment lower than the British average.

Unlike the majority of UK-born, EU migrants from eastern and southern Europe, are substantially less likely to be suburbanites, with only one-tenth of Italian (11.2%) and Spanish (9%), and 5% or less of Polish (5%) and Portuguese (4.6%) residing in these neighbourhoods. This clearly contrasts with the average UK-born population whose great majority live in suburban settings (22.6%) which are predominantly located on the outskirts of urban areas. This is of course relevant as the population in these neigbourhoods are more likely to own their own home and to live in semi-detached or detached properties, with residents being less likely to be young—with a mixture of those above retirement age and middle-aged parents with school age children. The individuals of these areas are also more likely to have higher-level qualifications. In fact, the levels of unemployment in these areas are lower compared to the British average, with people more likely to work in the information, financial, public administration, and education sectors, and use private transport to commute.

While the representation of constrained city dwellers among Spanish and Italian (3%) can be considered residual, a slightly greater proportion of Portuguese (6.1%) and, above all, Polish (8%) reside in these neighbourhoods. These areas are characterised for being more densely populated than the British average, with households being more likely to live in flats or to rent their accommodation, and with a higher prevalence of overcrowding. In these neighbourhoods, there is a lower proportion of people aged 5-14 and a higher proportion of people aged 65 and over than the national average. Individuals from these geographical

settings are more likely to have lower qualification levels than the national average and be people whose day-to-day activities are limited, and with no particular industries in which workers are most likely to be employed (the information and communication industries as well as the education sector are under-represented).

Finally, the population of EU migrants who live in areas of hard-pressed living is clearly lower compared to those born in the UK. While ten percent (Polish) or less (Portuguese, Spanish and Italian) of EU migrants live in these areas, nearly one-fifth of the UK-born population (19.8%) are residents in these neighbourhoods. These areas are predominantly in northern England and southern Wales, with their residents being more likely to live in semi-detached or terraced properties, and to privately rent. In these neighbourhoods a smaller proportion of residents have higher level qualifications, and those in employment are more likely to be in manufacturing, energy, mining, wholesale and retail, and transport-related industries, with rates of unemployment above the national average.

[Figure 3 about here]

Figure 3 displays the percentage distribution of each EU migrant group and the native population across all small areas in Britain using the group classification. This middle tier classification provides further description of an area's characteristics, in addition to, and in comparison with the parent supergroup characteristics. Due to the greater number of classes within this classification (26), various treemaps have been elaborated to identify the main classes for each national group. The results allow us to distinguish some revealing locational patterns for EU migrants. For instance, while a majority of Italian (11.1%) and Spanish (10.5%) live in aspiring and affluent neighbourhoods in cosmopolitan settings, Polish (14.7%) and Portuguese (12%) tend to reside in multicultural metropolitan areas characterized by rented family living. Another important difference is that Polish are more likely to live in challenged Asian terraces (10.6%) and Asian traits (9.7%) within multicultural metropolitan areas. There are, however, locational similarities between EU migrants. For example, between 8.9% (Portuguese) and 9.7% (Spanish and Italian) are considered aspirational techies in ethnicity central areas, and between 7.5% (Portuguese) and 10.3% (Polish) are professionals and families in predominantly urban areas.

[Figure 4 about here]

Figure 4 displays the percentage distribution for each EU migrant group and the native population across all small areas in Britain using the subgroup classification. This bottom tier classification supplements both the parent supergroup and parent group characteristics. Given the extreme detail of this area classification, only the top classes are described. The results from Figure 4 illustrate how EU migrants from eastern and southern Europe are largely dispersed in various area types across the country with none of the national groups being overly represented in any of the Subgroups (i.e. none has more than 10% in any of the classes). However, it is evident from the treemaps that not all groups reside in the same type of neighbourhoods. For instance, Italian and Spanish live predominantly in cosmopolitan areas with highly-qualified quaternary workers (5.4% Italian, and 5% Spanish) as well as in ethnicity central areas with multi-ethnic professional families (4.6% Italian, and 4.2% Spanish) and new EU tech workers (4.7% Spanish, and 4.4% Italian). Meanwhile, Portuguese tend to locate in ethnicity central areas with striving service workers (6.6%), in multicultural metropolitan settings with a preponderance of Asian terraces and flats (5.6%), and in areas which are characterised by new arrivals and with a predominance of social renting (4.6%).

The latter residential pattern can also be found among Polish, albeit with some differences too. For instance, the largest percentages of this group are in multicultural metropolitan neighbourhoods with a prevalence of new arrivals in social renting (7.6%), Asian terraces and flats (7.5%), and in multicultural settings for new arrivals (4.6%). The local geography of Polish settlement also include urbanites who reside in areas characterised by the presence of families in terraces and flats (4.7%), and even central neighbourhoods with a predominance of young families and students (4.6%).

[Figure 5 about here]

Finally, Figure 5 displays the percentage distribution for each EU migrant group in 2001 and 2011 across all small areas in Britain using the supergroup classification, which allows us to document the main socio-spatial trends among EU migrants during the past decade. The results clearly indicate how EU migrants have scattered to both traditional (urban) and nontraditional (suburban and rural) places of immigration, thus redrawing previous migration experiences of settlement along the way. Although the largest cities have continued to serve as prominent gateways to jobs and housing markets for EU migrants, the 2011 Census confirms a degree of stability in their settlement. However, this apparent stability of dispersal has also concealed some diverse experiences between EU migrants since 2001. For instance, Italian and Spanish increased significantly their presence in cosmopolitan (Italian +5.6%, Spanish +3.9%) and ethnicity central neighbourhoods (Italian +6.2%, Spanish +2.3%), whereas Portuguese and Polish remained stable or even decreased significantly in these urban settings (Portuguese -8.7% in ethnicity central neighbourhoods). In addition, a widespread reduction is observed among Italian and Spanish in neighbourhoods other than cosmopolitan and ethnicity central, particularly in multicultural metropolitan areas (Italian -3.4%, Spanish -2.8%) and suburbanite settings (Italian -3.2%, Spanish -1.9%). Although the percentage of Polish and Portuguese also decreased in suburban areas (Polish -10%, Portuguese -0.2%), their growing presence is particularly significant in multicultural metropolitan areas (Polish +9.2%, Portuguese +1.7%) as well as in hard-pressed living settings (Portuguese +3.3, Polish +1.0%) and areas with constrained city dwellers (Polish +3.2%, Portuguese 2.6%).

Conclusions and Discussion

This paper has examined the socio-spatial characteristics of the places of destination/residence of EU migrants using detailed geodemographic information from the latest census in Britain. In doing so, it has provided further understanding of the settlement patterns of recent immigration and, most importantly, the specifics of, and factors shaping, the varied experiences of EU migrants at neighbourhood level.

Overall, the results suggest that the rapid rise in Britain's EU migration has ushered in a new phase of demographic change which is not felt uniformly and differs by localities and regions. However, just as important as the increase in EU migration to Britain is their geographic dispersion throughout the country and the diversity of places of destination/residence. The analysis clearly reveals the salience of EU migration in population diversification across neighbourhoods in Britain, a situation which can be regarded as a demographic phenomenon of some consequence. Nonetheless, despite the range of scholarship on issues related to immigrant redistribution in Britain, the settlement patterns of EU migrants and the characteristics of the areas of destination/residence seem to be relatively unknown. This is somewhat surprising in view that the study of processes and patterns

involved in residential location of migrants from outside the EU, including second generation migrants, has become a matter of high interest in policy and academic circles in recent years in Britain (Finney and Simpson 2009).

This paper modestly attempts to shed some light on this issue and offers support for theoretical perspectives other than the still dominant spatial assimilation model, arguing that other lenses might be needed to complement and/or understand the spatial accommodation of EU migrants. The picture from the geodemographic analysis highlights that EU migrants do not congregate spatially as the assimilation model argues. In general, the residential behaviour of EU migrants suggests something distinctive about this group not previously observed, leading to a diversification of concentrations across different neighbourhood types despite their late arrival and exceptional population growth during the 2000s. This lack of residential clustering among EU migrants has also been observed in other geographical contexts for other populations (see, for example, Sabater and Massey 2015; Massey 2008) and has been labeled as heterolocalism by Zelinsky and Lee (1998).

Although combining EU migrants into common geodemographic categories creates an implicit assumption of homogeneity, the use of destination typologies proves to be useful to understand where EU migrants mostly gravitate residentially. This is demonstrated by the differences (and similarities) among EU migrants in their settlement patterns across neighbourhoods in Britain. For instance, using the geodemographic classification at group level, the results highlight that the majority of Italian and Spanish reside in aspiring and affluent neighbourhoods in cosmopolitan settings (10-11%), while most Polish and Portuguese reside in multicultural metropolitan areas characterized by rented family living (12-15%). In fact, the most detailed geodemographic profiling at subgroup level goes even further and indicates a certain preponderance of Italian and Spanish to reside in areas with highly-qualified quaternary workers (5%), professional families and with new EU tech workers (4-5%). This somewhat differs from the settlement patterns of Portuguese and Polish: while the former displays a pattern of residence in areas with striving service workers (6.6%) and in Asian terraces and flats (5.6%), the latter is mostly found in neighbourhoods characterised by new arrivals in social renting (7.6%) and Asian terraces and flats (7.5%). However, there are also similarities in residential locations between EU migrants. For instance, a similar percentage of Portuguese, Spanish and Italian (9-10%) live in aspirational techies in ethnicity central areas; and Portuguese and Polish show a relative similar preponderance (7.5-10%) of professionals and families in predominantly urban areas. Especially interesting is the presence of EU migrants in suburban (from 5% of Polish to 11.2% of Italian) and rural neighbourhoods (from 2.9% of Polish to 4.3% of Spanish). By definition, the addition of EU migrants to these areas represents a larger proportionate share of small-town populations than those of heavily populated cities. While many issues affect both urban and rural communities the impact can be greater in predominantly rural areas given the lack of infrastructure, particularly in terms of affordable housing and transportation. Therefore, the social, economic and political implications for these small communities are potentially large despite being generally ignored or downplayed in current public policy debates about immigrant settlement in Britain (de Lima 2008).

While the geodemograhic profiling highlights diverse settlement patterns for EU migrants, there are also some distinct socio-spatial outcomes. Perhaps the most important one in policy terms is the case of nationals from Poland. Although their exceptional growth during the 2000s does not seem to translate into strong clustering patterns, it clearly signals a degree of social and economic exclusion, a situation which does not seem to be found among nationals

from southern European countries (Spain, Italy and Portugal). Therefore, apart from being over-represented in the hardest, less prestigious, and generally worse paid jobs (McCollum and Findlay 2015; Home Office 2009), Polish show the largest representation of constrained city dwellers and hard-pressed living areas of all EU migrants analysed in this paper. Indeed, previous literature has highlighted that EU migrants (mostly from accession countries) live largely in disadvantaged and deprived neighbourhoods (Lymperopoulou 2013; White 2011; Robinson 2010; Phillimore et al 2008). This evidence might partly explain why headline claims suggest that EU migration is having a major impact on settled residents in affected locations. Unfortunately, such claims do not normally take into consideration that policy has gradually shifted away from issues of inequality and disadvantage, including those that affect EU migrants in their new places of destination/residence, a situation which might be nurturing poor (rather than good) relations between new and long-standing residents (Robinson and Walshaw 2012). While it is apparent that social networks and economic factors play a key role in explaining the distribution of new migrants, it is also evident that when avenues of spatial integration are systematically blocked by prejudice and discrimination towards some migrant groups, their residential exclusion is more likely to persist over time.

In closing, it is important to consider the future context of EU migration and settlement in Britain. From a policy perspective, although recent trends of EU migration do not (yet) officially constitute a government strategy of migration substitution, it clearly represents another turn in imagining and producing the 'good' migrant in Britain in recent times (Findlay et al 2010). However, immigration from the EU has quickly become a major and contentious political issue, a situation with important spatial ramifications as well as implications for the virtual social identities of EU migrants and the possible starker polarisation between 'wanted' and 'unwanted' migrants dependent on their perceived economic contribution. Undoubtedly, the rise of strategic Eurosceptics and polite xenophobes in Britain (Ford et al. 2012) since the outbreak of the economic recession has contributed towards a new racialisation in immigration policy which is constantly fuelled by tabloid journalism, particularly regarding eastern European migration (Fox et al. 2012). Unfortunately, this hostile environment resonant of past times is likely to have consequences for the residential circumstances of new migrants, perhaps causing more migrants to stay put in distressed neighbourhoods and poor areas of settlement. Hence, although the findings from this paper suggest that EU migrants have consolidated their national presence in Britain because of their growing numbers and unprecedented dispersal across a range of diverse neighbourhoods, it is clearly important to document future trends over time. As demonstrated in this paper, using geodemographic classifications can be a very useful way to account for nuance and complexity in contexts increasingly characterised by both segregation and diversity.

Acknowledgements

References

Arango, J., et al. (2009). The making of an immigration model: Inflows, impacts and policies in Southern Europe, IDEA working papers 9. Warsaw: Centre of Migration Research.

Boden, P., & Rees, P. (2010). Using administrative data to improve the estimation of immigration to local areas in England. Journal of the Royal Statistical Society: Series A, 173(4), 707–731.

Castells, M. (1989). The Information City. Oxford: Blackwell.

Champion, T. (2007). Defining ''urban'': The disappearing urban-rural divide. In H. S. Geyer (Ed.), International handbook of urban policy, volume 1: Contentious global issues (pp. 22–37). Cheltenham: Edward Elgar.

Cockings, S., Harfoot, A., Martin, D., & Hornby, D. (2011). Maintaining existing zoning systems using automated zone-design techniques: Methods for creating the 2011 Census output geographies for England and Wales. Environment and Planning A, 43(10), 2399–2418.

De Lima, P. (2008). Rural minority ethnic experiences: Housing and health. Race Equality Foundation Briefing Paper. London: Communities and Local Government.

Dorling, D., et al. (2007). Poverty, wealth and place in Britain, 1968 to 2005. York: Joseph Rowntree Foundation.

Favell, A. (2008). The new face of East–West migration in Europe. Journal of Ethnic and Migration Studies, 34(5), 701–716.

Findlay, A., Geddes, A., & McCollum, D. (2010). International migration and recession. Scottish Geographical Journal, 126(4), 299–320.

Finney, N., & Simpson, L. (2009). Sleepwalking to segregation? Challenging myths about race and migration. Bristol: The Policy Press.

Ford, R., Goodwin, M. J., & Cutts, D. (2012). Strategic Eurosceptics and polite xenophobes: Support for the United Kingdom Independence Party (UKIP) in the 2009 European Parliament elections. European Journal of Political Research, 51(2), 204–234.

Fox, J. E., Morosanu, L., & Szilassy, E. (2012). The racialization of the new European migration to the UK. Sociology, 46(4), 680–695.

Garapich, M. P. (2008). The migration industry and civil society: Polish immigrants in the United Kingdom before and after the EU enlargement. Journal of Ethnic and Migration Studies, 34(5), 735–752.

Green, A. E., Jones, P., & Owen, D. (2007). Migrant workers in the East Midlands labour market. Coventry: Warwick Institute for Employment Research, University of Warwick.

General Register Office for Scotland. (2014). Census geography comparison with England & Wales. http://www.gro-scotland.gov.uk/files2/geography/2011-census/geography-bckground-info-comparisonof-thresholds.pdf

Harris, R., Sleight, R., & Webber, R. (2005). Geodemographics, GIS and neighbourhood targeting. Chichester: Wiley.

Hickman, M., Crowley, H., & Mai, N. (2008). Immigration and social cohesion in the UK. The rhythms and realities of everyday life. York: Joseph Rowntree Foundation.

HM Government. (2014). Review of the balance of competences between the United Kingdom and the European Union—Single market: Free movement of persons. BIS/14/987, Department for Business, Innovation and Skills and Foreign and Commonwealth Office. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332668/bis-14-987-free-movement-of-services-balance-ofcompetencies-report.pdf

Home Office. (2009). Accession Monitoring Report May 2004–March 2009. London: Home Office.

Jentsch, B., & Simard, M. (Eds.). (2009). International migration and rural areas: Cross-national comparative perspectives. Burlington: Ashgate.

Johnston, R., Forrest, J., & Poulsen, M. (2002). Are there ethnic enclaves/ghettos in English cities? Urban Studies, 39(4), 591–618.

Lymperopoulou, K. (2013). The area determinants of the location choices of new immigrants in England. Environment and Planning A, 45(3), 575–592.

Martin, D. (2002). Geography for the 2001 Census in England and Wales. Population Trends, 108, 7–15.

Massey, D. S. (Ed.). (2008). New faces in new places: The changing geography of American immigration. New York: Russell Sage Foundation.

Massey, D. S. (2015). Segregation and the Perpetuation of Disadvantage. In Linda Burton & David Brady (Eds.), The oxford handbook of poverty and society (forthcoming). Oxford: Oxford University Press.

Massey, D. S., & Denton, N. A. (1988). The dimensions of residential segregation. Social Forces, 67(2), 281–315.

Mateos, P., & Aguilar, A. G. (2013). Socioeconomic segregation in Latin American cities. A geodemographic application in Mexico City. Journal of Settlements and Spatial Planning, 4(1), 11–25.

May, J., Wills, J., Datta, K., Evans, Y., Herbert, J., & McIlwaine, C. (2007). Keeping London working: Global cities, the British state, and London's new migrant division of labour. Transactions of the Institute of British Geographers, 37(2), 151–167.

McCollum, D., & Findlay, A. M. (2015). Flexible' workers for 'flexible' jobs? The labour market function of A8 migrant labour in the UK. Work, Employment and Society (forthcoming).

OECD. (2012). Free movement of workers and labour market adjustment: Recent experiences from OECD countries and the European Union. Paris: OECD Publishing.

Office for National Statistics. (2009). Interim report on the potential use of Department for Work and Pensions data to improve population and migration statistics. http://research.dwp.gov.uk/asd/asd1/niall/ons_paper.pdf

Office for National Statistics. (2012). Changes to output areas and Super output areas in England and Wales, 2001 to 2011. http://www.ons.gov.uk/ons/guide-method/geography/products/census/report–changes-to-output-areas-and-super-output-areas-in-england-and-wales–2001-to-2011.pdf

Office for National Statistics. (2013). 2011 Census analysis - comparing rural and urban areas of England and Wales. http://www.ons.gov.uk/ons/dcp171776_337939.pdf

Office for National Statistics. (2014). Methodology Note for the 2011 Area Classification for Output Areas. http://www.ons.gov.uk/ons/guide-method/geography/products/area-classifications/ns-areaclassifications/ns-2011-area-classifications/methodology-and-variables/methodology.pdf

Peixoto, J., et al. (2013). Immigrants, markets and policies in Southern Europe. In M. Okólski (Ed.), European immigrations: Trends, Structures and policy implications (pp. 107−148). Amsterdam: Amsterdam University Press.

Phillimore, J., Thornhill, J., & Goodson, L. (2008). Migrants from A8 countries and housing in the East Midlands. Report from the Centre for Urban and Regional Studies for Decent and Safe Homes and Government Office East Midlands, University of Birmingham. http://migrationtoolkit.emcouncils.gov.uk/upload/resources/CURS_DASH%20Migrant%20Workers%20Research%20Final.docx

Phillips, D., & Harrison, M. (2010). Constructing an integrated society: Historical lessons for tackling black and minority ethnic housing segregation in Britain. Housing Studies, 25(2), 221−235.

Popke, J. (2011). Latino migration and neoliberalism in the US South: Notes toward a rural cosmopolitanism. Southeastern Geographer, 51(2), 242−259.

Rath, J., van de Kamp, M., Slootman, M., & Tzaninis, I. (2013). Issues of 'Normalcy' around social and spatial mobility. Final report of the NICIS/Platform31 research program on social mobility: Individuals, groups, neighbourhoods. Amsterdam: Center for Urban Studies, University of Amsterdam. http://www.uva.nl/binaries/content/documents/personalpages/s/l/m.w.slootman/nl/tabblad-een/tabblad-een/cpitem%5B8%5D/asset?1384440356671

Recchi, E. (2008). Cross-state mobility in the EU: Trends, puzzles and consequences. European Societies, 10(2), 197−224.

Recchi, E., & Favell, A. (Eds.). (2009). Pioneers of European integration: Citizenship and mobility in the EU. Cheltenham: Edward Elgar Publishing.

Robinson, D. (2010). Neighbourhood effects of new immigration. Environment and Planning A, 42(10), 2451−2466.

Robinson, D., & Walshaw, A. (2012). New migration, neighbourhood effects and community change. Swindon: Arts and Humanities Research Council, Connected Communities Programme.

Rogaly, B. (2008). Intensification of workplace regimes in British horticulture: The role of migrant workers. Population Space and Place, 14(6), 497−510.

Ruhs, M., & Anderson, B. (Eds.). (2010). Who needs migrant workers? (pp. 1−14). Oxford: Oxford University Press.

Sabater, A., & Massey, D. S. (2014). Contrasting patterns of migration and settlement. In A. Domingo, A. Sabater, & R. Verdugo (Eds.), Demographic analysis of Latin American immigrants in Spain, Applied Demography Series (Vol. 5, pp. 55−82). New York: Springer.

Salt, J. (2012). International migration and the United Kingdom: Report of the United Kingdom SOPEMI correspondent to the OECD 2012. London: Migration Research Unit, University College London.

Sassen, S. (1991). The global city: New York, London, Tokyo. Princeton: Princeton University Press.

Scott, S. (2007). The ability of 'world city' theory to explain con-temporary patterns and processes on intra-Europan labour migration. http://www.migrationonline.cz/

Stenning, A., et al. (2006). Assessing the local and regional impacts of international migration. Newcastle: Centre for Urban and Regional Development Studies, Newcastle University.

Tamas, K., & Munz, R. (2006). Labour migrants unbound? EU Enlargement, transitional measures, and labour market effects. Stockholm: Institute for Futures Studies.

Verwiebe, R. (2008). Migration to Germany: Is a middle class emerging among intra-European migrants? Migration Letters, 5(1), 1–19.

White, A. (2011). Polish families and migration since EU accession. Bristol: Policy Press.

Wright, R., Holloway, S., & Ellis, M. (2011). Reconsidering both diversity and segregation: A reply to Poulsen, Johnston and Forrest, and to Peach. Journal of Ethnic and Migration Studies, 37(1), 167–176.

Zelinsky, W., & Lee, B. A. (1998). Heterolocalism: An alternative model of sociospatial behaviour of immigrant ethnic communities. International Journal of Population Geography, 4(4), 281–298.

Zimmermann, K. F. (2009). Labour Mobility and the Integration of European Labour Markets. IZA discussion paper series No. 3999. Bonn: Institute for the Study of Labor.

Fig. 1 Labour immigration by country source as percentage of total labour immigration entering Britain—percentages, 2002-2011
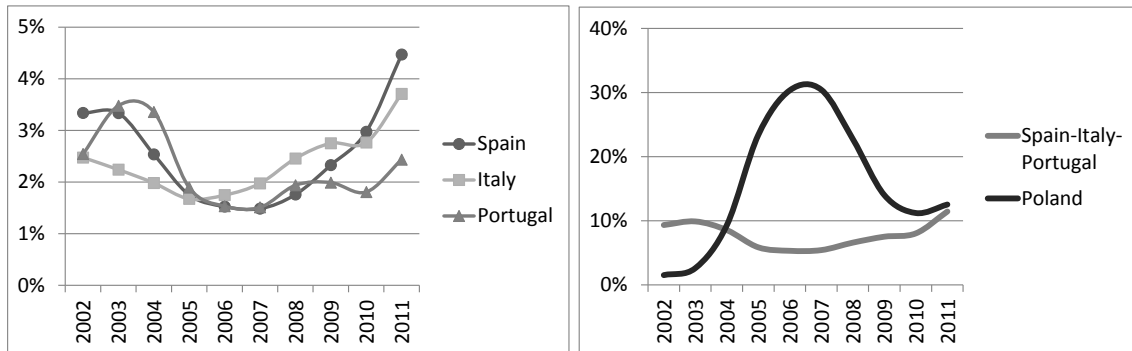
Source: Own elaboration based on 100% extract from National Insurance Recording and Pay as you Earn System (NPS). NB: (1) Registration date is derived from the date at which a NINo is maintained on the NPS; (2) year of registration date is shown as calendar year (1 January—31 December)

Fig. 2 Geographical distribution of selected intra-EU migrants across local authorities in Britain—location quotients*, year 2011
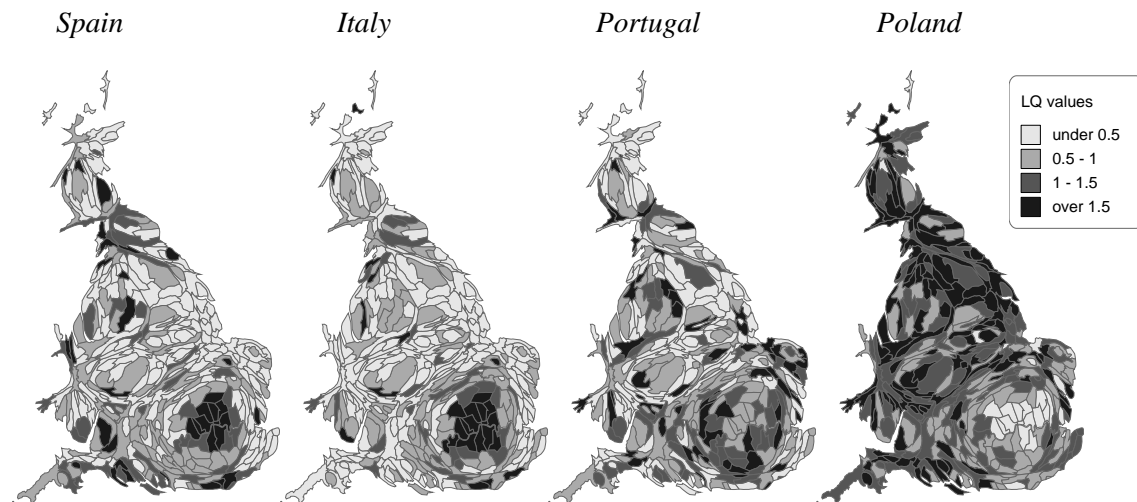
Spain   Italy   Portugal   Poland

Source: Own elaboration based on 100% extract from National Insurance Recording and Pay as you Earn System (NPS). NB: (1) Registration date is derived from the date at which a NINo is maintained on the NPS; (2) year of registration date is shown as calendar year (1 January—31 December); and (3) each local authority is rescaled in proportion to the population size. *Location quotients compare the relative concentration of each intra-EU migrant group at local level to the relative concentration of the same group at national level. If the location quotient for a district is 1, this means that the district has exactly the same relative frequency for the migrant group being considered as is found in Britain as a whole. A location quotient of >1 indicates that the group is over-represented in the locality and that there is a relative concentration of the group in the locality

Table 1 Selected EU migrants with residence in Britain in 2011 by year of arrival

Year of arrival	Spain	Italy	Portugal	Poland
Arrived before 2001	43.9%	59.3%	39.9%	8.2%
Arrived 2001-2006	20.4%	16.1%	33.7%	51.4%
Arrived 2007-2011	35.8%	24.5%	26.4%	40.4%
Total	100.0%	100.0%	100.0%	100.0%

Source: Own elaboration based on data from the 2011 Census (ONS-GROS)

Table 2 Selected EU migrants and UK-born populations in Britain—2001-2011

	2001 (thousands)	2011 (thousands)	Difference (thousands)	% Change since 2001
UK-born	52276.37	53519.26	1242.89	2%
Polish	61.20	634.12	572.92	936%
Italian	107.19	140.62	33.43	31%
Portuguese	35.76	88.16	52.40	147%
Spanish	54.58	84.18	29.60	54%

Source: Own elaboration based on data from the 2001 and 2011 Census (ONS-GROS)

Table 3 The 2011 output area classification (OAC)—supergroups (8), groups (26) and subgroups (76)

1 – Rural residents

1a – Farming communities
1a1 – Rural workers and families
1a2 – Established farming communities
1a3 – Agricultural communities
1a4 – Older farming communities
1b – Rural tenants
1b1 – Rural life
1b2 – Rural white-collar workers
1b3 – Ageing rural flat tenants
1c – Ageing rural dwellers
1c1 – Rural employment and retirees
1c2 – Renting rural retirement
1c3 – Detached rural retirement

2 – Cosmopolitans

2a – Students around campus
2a1 – Student communal living
2a2 – Student digs
2a3 – Students and professionals
2b – Inner city students
2b1 – Students and commuters
2b2 – Multicultural student neighbourhood
2c – Comfortable cosmopolitan
2c1 – Migrant families
2c2 – Migrant commuters
2c3 – Professional service cosmopolitans
2d – Aspiring and affluent
2d1 – Urban cultural mix
2d2 – Highly-qualified quaternary workers
2d3 – EU white-collar workers

3 – Ethnicity central

3a – Ethnic family life
3a1 – Established renting families
3a2 – Young families and students
3b - Endeavouring Ethnic Mix
3b1 – Striving service workers
3b2 – Bangladeshi mixed employment
3b3 – Multi-ethnic professional service workers
3c – Ethnic dynamics
3c1 – Constrained neighbourhoods
3c2 – Constrained commuters
3d – Aspirational techies
3d1 – New EU tech workers
3d2 – Established tech workers
3d3 – Old EU tech workers

4 – Multicultural metropolitans

4a – Rented family living
4a1 – Private renting young families
4a2 – Social renting new arrivals
4a3 – Commuters with young families
4b – Challenged Asian terraces
4b1 – Asian terraces and flats
4b2 – Pakistani communities
4c – Asian traits
4c1 – Achieving minorities
4c2 – Multicultural new arrivals
4c3 – Inner city ethnic mix

5 – Urbanites

5a – Urban professionals and families
5a1 – White professionals
5a2 – Multi-ethnic professionals with families
5a3 – Families in terraces and flats
5b – Ageing urban living
5b1 – Delayed retirement
5b2 – Communal retirement
5b3 – Self-sufficient retirement

6 – Suburbanites

6a – Suburban achievers
6a1 – Indian tech achievers
6a2 – Comfortable suburbia
6a3 – Detached retirement living
6a4– Ageing in suburbia
6b – Semi-detached suburbia
6b1 – Multi-ethnic suburbia
6b2 – White suburban communities
6b3 – Semi-detached ageing
6b4 – Older workers and retirement

7 – Constrained city dwellers

7a – Challenged diversity
7a1 – Transitional Eastern European neighbourhood
7a2 – Hampered aspiration
7a3 – Multi-ethnic hardship
7b – Constrained flat dwellers
7b1 – Eastern European communities
7b2 – Deprived neighbourhoods
7b3 – Endeavouring flat dwellers
7c – White communities
7c1 – Challenged transitionaries
7c2 – Constrained young families
7c3 – Outer city hardship
7d – Ageing city dwellers
7d1 – Ageing communities and families
7d2 – Retired independent city dwellers
7d3 – Retired communal city dwellers
7d4 – Retired city hardship

8 – Hard-pressed living

8a – Industrious communities
8a1 – Industrious transitions
8a2 – Industrious hardship
8b – Challenged terraced workers
8b1 – Deprived blue-collar terraces
8b2 – Hard pressed rented terraces
8c – Hard pressed ageing workers
8c1 – Ageing industrious workers
8c2 – Ageing rural industry workers
8c3 – Renting hard-pressed workers
8d – Migration and churn
8d1 – Young hard-pressed families
8d2 – Hard-pressed ethnic mix
8d3 – Hard-Pressed European Settlers

Source: Adapted from 2011 OAC (ONS)

Table 4 Distribution of selected EU migrants and natives across small areas in Britain using the output area supergroup Classification (8 groups)—percentages, year 2011

	UK	Spain	Italy	Portugal	Poland
1. Rural Residents	12.1%	4.3%	3.6%	3.0%	2.9%
2. Cosmopolitans		20.9%	18.4%	10.7%	8.4%
	3.8%				14.9%
3. Ethnicity Central	4.3%	23.9%	21.3%	29.4%	
	11.7%				34.9%
4. Multicultural Metropolitans	19.0%	16.0%	20.2%	26.1%	
5. Urbanites	22.6%	16.7%	16.2%	12.0%	15.2%
6. Suburbanites	6.7%				5.0%
7. Constrained City Dwellers	19.8%	9.0%	11.2%	4.6%	8.0%
				6.1%	
8 Hard-Pressed Living		3.0%	3.0%	8.0%	10.6%
		6.1%	6.0%		
Totals	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Own elaboration based on the 2011 Census and the 2011 OAC (ONS). NB: (1) The height and column widths are proportional to their respective totals using a Marimmekko chart, which is produced with a VBA-based Microsoft Excel

Fig. 3 Distribution of selected EU migrants and natives across small areas in Britain using the output area group classification (26 Groups)—percentages, year 2011

UK-born

Semi-Detached Suburbia (13.9) | Rural Tenants (6.7) | Migration and Churn (5.8)
Industrious Communities (5.7) | 1a (3.5) | 4c (3.1)
Urban Professionals and Families (11)
Rented Family Living (5.7) | 8b (2.9) | 2a (1.5) | 3a (1.4)
4b (2.9) | 2d (1.2)
Suburban Achievers (8.8)
Hard-Pressed Ageing Workers (5.4) | 1c (1.8) | 3b (1)
Ageing Urban Living (8)
Challenged Diversity (4) | 7c (1.6) | 7d (0.8) | 2c (0.7)
3d (1.5) | 2b (0.4)

Spanish

Aspiring and Affluent (10.5) | Endeavouring Ethnic Mix (8.8) | Ageing Urban Living (7) | Rented Family Living (6.4)
Asian Traits (6.1) | Suburban Achievers (4.4) | 2a (4.4)
Aspirational Techies (9.7)
2b (4) | 8d (2.2) | 7a (2.2)
Ethnic Family Life (4.9) | 2c (2) | 1a (1)
4b (3.4) | 1c (1)
Urban Professionals and Families (9.7)
Semi-Detached Suburbia (4.6) | 8c (1.6) | 8b (0.7)
1b (2.3) | 8a (1.5) | 3c (0.5) | 7d (0.5)

Italian

Aspiring and Affluent (11.1) | Asian Traits (8.4) | Rented Family Living (7.5) | Endeavouring Ethnic Mix (7)
Ageing Urban Living (6.6) | Ethnic Family Life (4.4) | 4b (4.3)
Urban Professionals and Families (9.7)
2b (3) | 8d (2.1) | 1b (1.9)
Semi-Detached Suburbia (5.9) | 8a (1.7) | 1a (1)
Aspirational Techies (9.5)
2a (3) | 1c (0.7)
8c (1.7) | 8b (0.7)
Suburban Achievers (5.3) | 7a (2.1) | 2c (1.3) | 7d (0.4)
3c (0.4)

Portuguese

Rented Family Living (12) | Ethnic Family Life (8.6) | Urban Professionals and Families (7.5) | Challenged Asian Terraces (7.1)
Asian Traits (7) | Ageing Urban Living (4.5) | 8d (4.3)
Endeavouring Ethnic Mix (10.9)
6b (2.4) | 2b (1.9) | 1b (1.7)
Challenged Diversity (5.1) | 2c (1.7) | 3c (1.1)
6a (2.1)
Aspirational Techies (8.9)
8c (1.6) | 8b (0.8)
Aspiring and Affluent (5) | 1a (0.7)
2a (2.1) | 8a (1.3) | 1c (0.6) | 7c (0.4)

Polish

Rented Family Living (14.7)	Asian Traits (9.7)	Challenged Diversity (6.7)	Ethnic Family Life (6.4)
Challenged Asian Terraces (10.6)	Migration and Churn (5.4)	Semi-Detached Suburbia (3.2)	2d (2.6)	2c (2.5)
	Aspirational Techies (5)	3b (2.4)	8c (1.9)	6a (1.8)
Urban Professionals and Families (10.3)		2a (2.2)	1b (1.5)	2b (1.1)
	Ageing Urban Living (4.9)		8b (1.2)	1a (0.7)
		8a (2)		1c (0.7)
			3c (1.2)	7d (0.5)

Source: Own elaboration based on the 2011 Census and the 2011 OAC (ONS). NB: (1) The area of each rectangle in the treemaps (each produced in XAML and C# using Microsoft Longhorn) is proportional to the value represented; (2) the 10 largest groups are shown with the ONS labels whereas the others groups only have the OAC codes

Fig. 4 Distribution of selected EU migrants and natives across small areas in Britain using the output area subgroup classification (76 Groups) —top 20—percentages, year 2011

UK-born

White Suburban Communities (5.4)	Multi-Ethnic Professionals with Families (3.6)	Industrious Transitions (3.5)	Families in Terraces and Flats (3.2)
White Professionals (4.2)	Detached Retirement Living (3.1)	8d2 (2.6)	4a1 (2.5)
Semi-Detached Ageing (4.1)	Ageing Industrious Workers (2.8)	6b4 (2.5)	8b1 (2.2)
			6a4 (2)
	Rural Life (2.7)	5b2 (2.3)	7a3 (2)
Self-Sufficient Retirement (3.8)	1b2 (2.6)	8a2 (2.2)	5b1 (2)

Spanish

Highly-Qualified Quaternary Workers (5)	EU White-Collar Workers (3.6)	Families in Terraces and Flats (3.4)	Multi-Ethnic Professional Service Workers (3.4)
New EU Tech Workers (4.7)	Striving Service Workers (3.2)	5b1 (2.7)	3d3 (2.6)
	Inner City Ethnic Mix (2.9)	3d2 (2.5)	2a3 (2.4)
Multi-Ethnic Professionals with Families (4.2)	Asian Terraces and Flats (2.7)	4a3 (2.5)	5b3 (2.3)
			3b2 (2.2)
Multicultural Student Neighbourhoods (3.8)	3a2 (2.7)	4a2 (2.4)	3a1 (2.2)

Italian

Highly-Qualified Quaternary Workers (5.4)	Inner City Ethnic Mix (3.4)	Commuters with Young Families (3.1)	Families in Terraces and Flats (3.1)
Multi-Ethnic Professionals with Families (4.6)	Asian Terraces and Flats (3)	5b1 (2.6)	3d3 (2.6)
New EU Tech Workers (4.4)	Multicultural New Arrivals (2.9)	3d2 (2.5)	3b1 (2.4)
			5b3 (2.2)
	Multicultural Student Neighbourhoods (2.9)	3a2 (2.5)	6a1 (2.1)
EU White-Collar Workers (3.9)	3b3 (2.8)	4a2 (2.4)	4c1 (2)

Portuguese

|			
Striving Service Workers (6.6)	Established Renting Families (4)	Commuters with Young Families (3.9)	New EU Tech Workers (3.6)
Asian Terraces and Flats (5.6)	Private Renting Young Families (3.5)	5a2 (2.9)	3d3 (2.8)
Social Renting New Arrivals (4.6)	Multicultural New Arrivals (3.4)	3d2 (2.4)	7a1 (2.3)
	Multi-Ethnic Professional Service Workers (3)	4c3 (2.4)	8d3 (2.2)
			2b2 (1.7)
Young Families and Students (4.6)	5a3 (2.9)	2d2 (2.3)	5a1 (1.6)

Polish

| Social Renting New Arrivals (7.6)	Young Families and Students (4.6)	Private Renting Young Families (4.2)	Multi-Ethnic Professionals with Families (3.2)
Asian Terraces and Flats (7.5)	Hard-Pressed European Settlers (3.1)	7a1 (2.9)	3d2 (2.9)
	Pakistani Communities (3.1)	5a1 (2.4)	4c1 (2)
Families in Terraces and Flats (4.7)	Inner City Ethnic Mix (3)	2c1 (2.2)	5b3 (1.8)
			3a1 (1.8)
Multicultural New Arrivals (4.6)	4a3 (3)	7a3 (2.1)	5b2 (1.7)

Source: Own elaboration based on the 2011 Census and the 2011 OAC (ONS). NB: (1) The area of each rectangle in the treemaps (each produced in XAML and C# using Microsoft Longhorn) is proportional to the value represented; (2) the 10 largest groups are shown with the ONS labels whereas the others groups only have the OAC codes

Fig. 5 Distribution of selected EU migrants across small areas in Britain using the output area supergroup classification (8 groups)—percentages, years 2001 and 2011
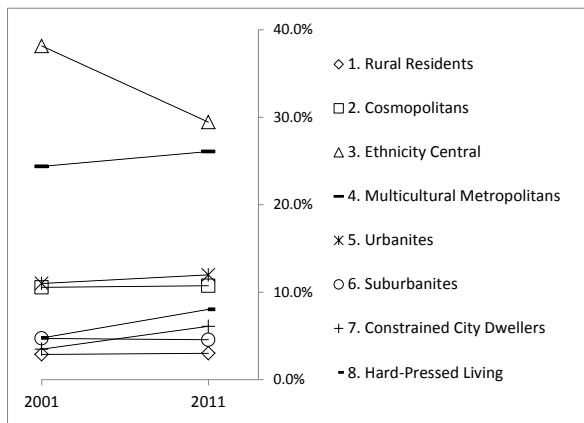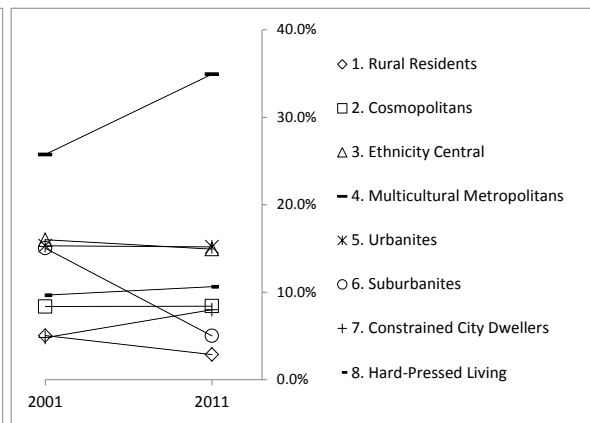
Spanish
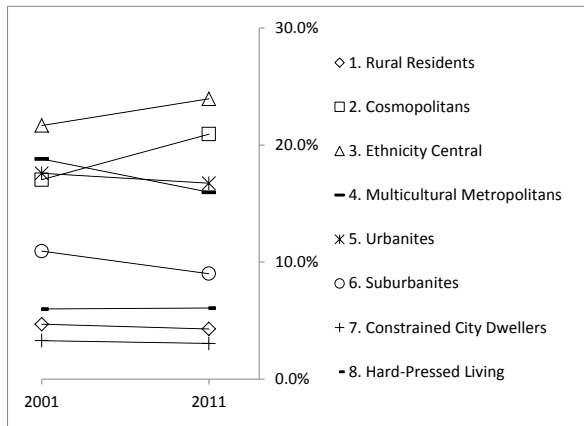
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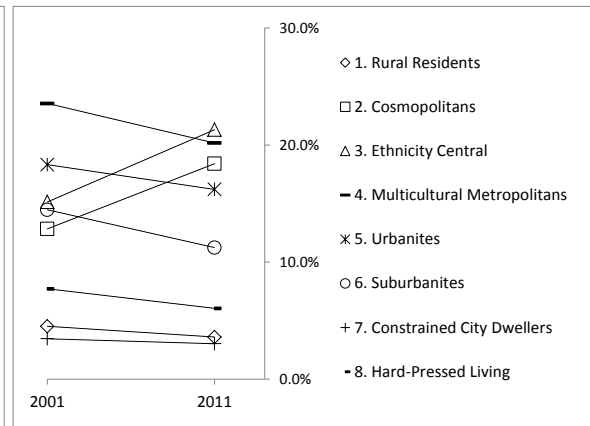
Portuguese

Polish

Source: Own elaboration based on the 2001 and 2011 Census, and the 2011 OAC (ONS)