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COUNTRY OF BIRTH IN THE 2011 CENSUS: A VIEW OF MIGRATION IN LONDON AND ENGLISH LOCAL AUTHORITIES

Paccoud, LSE Cities, Ordinary Streets: An Ethnography from Local to Global

LSE Cities Project Working Paper

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INTRODUCTION

‘Ordinary Streets’ is an ethnographic and visual exploration of the spaces, economies and cultures of ‘street’, and engages with issues of immigration, adaptation and urban multiculture. The aim is to analyse the street in ways that have significance for policy and planning, as well as interests around immigration and the socio-spatial ‘scapes’ that spans local and global realities. This working paper complements this ethnographic work at the level of the street with a quantitative overview of migration in the UK.

The focus here is on the spatial distribution of populations by country of birth, based on the wealth of data on this variable collected through the 2011 Census. The data on country of birth is useful in identifying particular spatial logics of population distribution in the UK and offers a different but complementary view of analyses done on ethnicity data. While the census defines 18 ethnic categories, data is available on the number of individuals from 173 countries of birth, thus allowing for a more disaggregated understanding of migration in the UK. It was also decided that country of birth information was a better indicator to visualise the distribution of populations than nationality for two reasons: individuals may have more than one nationality and individuals may have acquired UK citizenship since their arrival in the country.

The initial analysis presented here has thus taken as point of departure a view of migration that is tied to the country of birth of the migrant. The term ‘migrant’ is thus used here to refer to individuals currently residing in the UK but who were born outside of the UK. The aim is to identify which migrant populations are most concentrated versus most dispersed, both at the local authority level in the UK and at the Medium Super Output Area (MSOA)1 for London. This will open the scope for further research into the possible reasons for the particular settlement patterns of different migrant populations. The analysis and ideas in this working paper are tentative and they will hopefully open up an interesting conversation on the use of the recently released country of birth data. Please get in touch if you have any comments about the methods used or findings presented in this working paper.

UK OVERVIEW

METHODOLOGICAL CONSIDERATIONS

By shifting the perspective from populations to spaces, this section aims to gauge the distribution of migrants according to the Human Development Index (HDI) of their country of birth. This index brings together levels of population wealth, health and education. Four spatial zones in England and Wales are identified and the average HDI of the migrant population taken. These are cities; the local authorities that are a part of Political Metropolitan Regions (PMR); the local authorities that are

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1 These have a minimum population of 5,000 and a maximum population of 15,000 inhabitants.
contained in Extended Metropolitan Regions (EMR); and rural areas. Local authorities were classified into these four spatial scales by superimposing local authority boundaries on satellite imagery provided by Google Earth. While the notion of city and rural are straightforward, the other two terms are described below.

The notion of EMR is used here to account for the large number of local authorities that are highly urbanised but that cannot be identified as cities, either because they contain no large cities or because they have no clear urban structure. These are local authorities that contain urban fabric that is spatially linked to a nearby city and can thus be thought of as suburbs rather than cities in their own right. In order to decide which local authorities formed the EMRs of cities in England, the spatial coherence of the urban fabric that extended out of central cities was visually assessed. The local authorities that were part of spatially coherent urban agglomerations extending out from cities were classified as EMRs.

EMRs can be opposed to the PMRs of particular cities, which have been defined here as any institutionalised territorial unit that surround the central core of the city and its immediate suburbs. This includes Greater London or Greater Manchester for example, but also more informal institutional forms (Liverpool City Region, Tyneside, etc.). The population difference between EMRs and the cities at their centre can be vast. London’s EMR, for example, contains 14.8 million inhabitants as compared to 7.8 million for Greater London. By focusing on the relation between spatial elements on the ground rather than institutional or political definitions, some EMRs may also go against strongly entrenched notions of what a particular city is. For example, the urban fabric of Manchester and Liverpool and of their respective suburbs are so strongly connected that they can be seen as forming one single EMR.

**FINDINGS FROM THE PERSPECTIVE OF LOCAL AUTHORITIES**

*Overview of country of birth groups within local authorities*

<table>
<thead>
<tr>
<th>Area</th>
<th>Resident population (2011)</th>
<th>Number of country of births with over 1,000 representatives</th>
<th>Percentage of non-UK born population</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>-</td>
<td>229</td>
<td>-</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>61,774,000</td>
<td>173</td>
<td>12.2</td>
</tr>
<tr>
<td>London EMR</td>
<td>14,850,000</td>
<td>119</td>
<td>24.8</td>
</tr>
<tr>
<td>Greater London (PMR)</td>
<td>7,816,000</td>
<td>113</td>
<td>36.2</td>
</tr>
<tr>
<td>Inner London</td>
<td>3,073,000</td>
<td>103</td>
<td>41.6</td>
</tr>
<tr>
<td>Manchester-Liverpool EMR</td>
<td>4,595,000</td>
<td>62</td>
<td>9.2</td>
</tr>
<tr>
<td>Greater Manchester (PMR)</td>
<td>2,624,000</td>
<td>57</td>
<td>12.3</td>
</tr>
<tr>
<td>Birmingham EMR</td>
<td>2,642,000</td>
<td>52</td>
<td>16.5</td>
</tr>
<tr>
<td>West Midlands Conurbation (Birmingham EMR)</td>
<td>2,327,000</td>
<td>48</td>
<td>15.9</td>
</tr>
<tr>
<td>Manchester City</td>
<td>505,000</td>
<td>45</td>
<td>26.9</td>
</tr>
<tr>
<td>Birmingham City</td>
<td>1,033,000</td>
<td>43</td>
<td>22.9</td>
</tr>
<tr>
<td>Portsmouth-Southampton EMR</td>
<td>1,725,000</td>
<td>40</td>
<td>8.7</td>
</tr>
<tr>
<td>Bristol EMR</td>
<td>950,000</td>
<td>39</td>
<td>15.8</td>
</tr>
</tbody>
</table>

*Table 1: Spatial units with the most countries of birth represented*

The UK has a very diverse population: 173 out of the world’s 229 nations have at least 1,000 representatives in the UK. At a local level, London’s EMR is the most diverse place in the UK, with 119 country of births represented within its 14.8 million inhabitants. However, these groups are highly concentrated within the EMR as 103 of them can actually be found within the 3 million inhabitants of Inner London (13 boroughs). The next two EMRs (Manchester-Liverpool and Birmingham) have about half the countries of birth represented in London. And again, most of these migrant groups can be found in the core cities of these EMRs (Manchester and Birmingham).
Approximately 12% of the inhabitants of the UK were born outside of the UK. However, there are sharp differences across local authorities on this indicator: the Greater London borough of Brent has the highest percentage of non-UK born inhabitants (58.4%) while 48 local authorities have less than five percent of their population born outside of the UK. This indicates that the non-UK born population is quite strongly concentrated. There are 25 Local Authorities out of 174 in England and Wales where over a third of the population is non-UK born, but of these only two are not London boroughs: Slough which is still part of London’s EMR (37.6%) and Leicester (33.4%). Inner London as a whole has 41.6% of its population born outside of the UK. This contrasts with the urban cores of other large cities: Birmingham (22.9%), Sheffield (11.1%), Bradford (15.3%), Manchester (26.9%), Bristol (14.9%) and Liverpool (8.7%).

**Human Development Index**

One way to uncover the varying experiences of local authorities with migration is to focus on the Human Development Indices (HDI) of the countries of birth of the migrant population residing in a local authority. The HDI is the flagship product of the United Nations Development Programme (UNDP) and brings together in a single index indicators measuring the success of countries in education, health and wealth. Ranging from 0 to 1, the HDI is thus a good way to compare the development levels of countries against each other and to assess which types of countries are most represented within a particular local authority. The UNDP provides four HDI classes based on quartiles: low human development (0.304 to 0.534), medium human development (0.536 to 0.710), high human development (0.712 to 0.796) and very high human development (0.805 to 0.955). HDI data featured here is for 2012.

By looking at the breakdown of migrants in the UK according to the HDI class of their respective countries of birth in the figure 1 below on the far left, it is clear that countries with high HDIs predominate. What is interesting is that this distribution by HDI classes for London’s EMR in the middle pie chart below very closely mirrors that of the UK in general. Other EMRs can have very different distributions of migrants by the HDI of their countries of birth. There are places that have concentrations of migrants from low HDI countries, like Birmingham below on the right, and others that have concentrations of migrants from very high HDI countries, like Middlesbrough’s EMR where 68.4% of migrants are from very high HDI countries.

![Figure 1: Migrant population by HDI class for the UK and selected EMRs](image)

Further evidence that local experiences of migration vary greatly in the UK can be seen in figure 2 below which shows the distribution of migrants according to HDI classes for three different spatial units: Extended Metropolitan Regions, Political Metropolitan Regions and Cities with over 50,000 migrants.
FINDINGS FROM THE PERSPECTIVE OF COUNTRY OF BIRTH GROUPS

We can now turn to the analysis of country of birth data in England and Wales from the perspective of particular groups of migrants. We will focus here on those groups that have over a 100,000 representatives in the UK. There are 7.5 million individuals in the UK that were born outside of its borders. A third of these are from the five countries with the largest number of representatives in the UK (India, Poland, Pakistan, Ireland and Germany). The European Union has the largest number of representatives in the UK, with over two and a half million individuals born there. Next is South Asia with 1.5 million, Africa with over 1.2 million, East Asia with 0.6 million and Latin American and the Caribbean with just under 0.4 million representatives.

<table>
<thead>
<tr>
<th>Country of birth</th>
<th>Population in the UK</th>
<th>Number of local authorities with over a 1,000 representatives</th>
<th>Concentration index</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>729,000</td>
<td>127</td>
<td>1.35</td>
</tr>
<tr>
<td>Poland</td>
<td>643,000</td>
<td>139</td>
<td>0.66</td>
</tr>
<tr>
<td>Pakistan</td>
<td>457,000</td>
<td>86</td>
<td>3.90</td>
</tr>
<tr>
<td>Ireland</td>
<td>397,000</td>
<td>128</td>
<td>0.78</td>
</tr>
<tr>
<td>Germany</td>
<td>297,000</td>
<td>129</td>
<td>0.94</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>230,000</td>
<td>58</td>
<td>10.92</td>
</tr>
<tr>
<td>South Africa</td>
<td>211,000</td>
<td>89</td>
<td>1.87</td>
</tr>
<tr>
<td>Nigeria</td>
<td>190,000</td>
<td>56</td>
<td>4.62</td>
</tr>
<tr>
<td>USA</td>
<td>189,000</td>
<td>61</td>
<td>3.18</td>
</tr>
<tr>
<td>Jamaica</td>
<td>143,000</td>
<td>43</td>
<td>9.12</td>
</tr>
<tr>
<td>France</td>
<td>137,000</td>
<td>50</td>
<td>4.41</td>
</tr>
<tr>
<td>Philippines</td>
<td>137,000</td>
<td>64</td>
<td>2.96</td>
</tr>
<tr>
<td>China</td>
<td>136,000</td>
<td>60</td>
<td>3.34</td>
</tr>
<tr>
<td>Kenya</td>
<td>133,000</td>
<td>49</td>
<td>5.03</td>
</tr>
<tr>
<td>Lithuania</td>
<td>125,000</td>
<td>46</td>
<td>7.76</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>125,000</td>
<td>59</td>
<td>3.08</td>
</tr>
<tr>
<td>Italy</td>
<td>124,000</td>
<td>63</td>
<td>2.70</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>120,000</td>
<td>33</td>
<td>11.72</td>
</tr>
<tr>
<td>Australia</td>
<td>107,000</td>
<td>50</td>
<td>3.11</td>
</tr>
<tr>
<td>Somalia</td>
<td>102,000</td>
<td>38</td>
<td>9.28</td>
</tr>
</tbody>
</table>

Table 2: Concentration metrics for the largest migrant groups

Table 2 above shows that some country of birth groups can be found in a high proportion of the 174 local authorities in England and Wales. This is the case for those born in Poland (139), Germany (129), Ireland (128) and India (127). At the other extreme, some populations live in a limited number of local authorities: Sri Lanka (33), Somalia (38) and Jamaica (43).
Further useful information here is the percentage of the population of each migrant group that can be found in each of the 174 local authorities. By adding up the squared values of each of these percentages, one obtains an index of the concentration of each group, visualised in figure 3 below. This is a more accurate metric of concentration because it takes into account the population weight of the local authorities in which a group may reside: a group may reside in a significant number of local authorities but may have most of its population in a few local authorities. This is the case of those born in Bangladesh: while they reside in 58 local authorities across England and Wales, close to 21% of them live in the London borough of Tower Hamlets alone.

*Figure 3: Concentration index of the largest migrant groups*

Country of birth and concentration across Local Authority types

Another perspective on the distribution of particular migrants groups across local authorities in England and Wales one could use is that of their pattern of settlement across four spatial scales: city, first outer ring of suburbs (within Political Metropolitan Regions), second outer ring of suburbs (within Extended Metropolitan Regions) and rural areas. This is represented in figure 4 below for all migrant groups with over a 100,000 representatives. Populations have been grouped according to the similarity of their settlement pattern in England and Wales. Groups from very different parts of the world share similar settlement patterns across these four types of local authorities, be it India and Kenya, Somalia and Jamaica or South Africa and the Philippines.

*Figure 4: Patterns of spatial distribution of the largest migrant groups*

**ENGLAND MAPPING EXERCISE**

Figure 5 below is a map of England showing a slightly different categorisation of local authorities that has been used until now. This map uses the more disaggregated English Census Output Areas
(English Districts, unitary authorities and London Boroughs). This has allowed for a finer grained categorisation of local authorities according to spatial type. Some differences with the categorisation used above are the conflation of PMRs into EMRs and the introduction of a new category, Urbanised Rural, to differentiate local authorities that are predominantly rural (no cities of over 20,000 inhabitants) from those that contain a significant amount of urban fabric, even though it may be dispersed or lost within a large local authority.

Three large urban clusters are immediately noticeable: London and its EMR in the South East, the cluster formed by the contiguous Manchester-Liverpool and Leeds-Bradford-Sheffield EMRs and the arc that stretches from Telford to Birmingham EMR to Leicester. Other significant urban clusters can be found on the South Eastern seaboard and centred on Bristol, Newcastle and Middlesbrough. In contrast, others areas in England are much less urbanised: most of the South West and the East Midlands and the north of East England and North West England. The following section will look at the way in which migrant groups by countries of birth are settled across these different types of local authorities.

![Geographical type diagram]

**Figure 5: Overview of local authority geographical types**

A first way of looking at migration in England is to aggregate countries of birth into regional groupings. Excluding the UK, countries can be grouped into 14 broad categories. While these

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2 Pre-2004 EU countries, EU accession countries, rest of Europe, North Africa, Central and West Africa, South and Eastern Africa, Middle East, Eastern Asia, Southern Asia, South Eastern Asia, North America, Central and South America, the Caribbean and Australasia
categories obscure the vast differences that may exist within them, they offer a useful way to gauge the diversity of populations residing in England's local authorities.

Figure 6 below is a representation of the different levels of diversity in local authorities. The greyscale is the same as presented in figure 5: local authorities by geographical category. The circles on top of this layer indicate for how many of the 14 world regions mentioned above a particular local authority has an above average share of the population (what is called the location quotient). In other words, the larger the size of the circle, the higher the number of world regions with a significant presence.

Figure 6: Diversity in England's local authorities
What is immediately noticeable is the number of local authorities which have no above average shares of any of the 14 world regions (those local authorities without circles). There is a considerable degree of overlap with those regions that are categorised as less urbanised. The other striking fact is the extraordinarily high diversity of London’s EMR: a high proportion of the local authorities that compose it have above average shares of residents born in over 10 world regions. Other urban agglomerations show high degrees of diversity, but these are usually confined to the central cities. What is remarkable about the London case is how far out from the centre high levels of diversity are sustained, especially on the Western end of the EMR.

We can now move to a more disaggregated analysis of the country of birth data. Figure 7 below displays the settlement patterns of nine different groups. The colour shading is the same as in previous maps. The size of the circles is determined by the extent to which a local authority has an above average share of a particular population (measured using standard deviations from the mean). Large circles thus indicate the significant presence of a population while the absence of a circle means that the local authority has a below average share of that particular population.

These nine maps, constructed in the same way and thus comparable one to one, show the diversity of settlement patterns of residents born outside of the UK. At a general level, some groups are found only in more urbanised areas (India, Pakistan, Bangladesh, Nigeria, Jamaica and Kenya), while others inhabit a larger range of local authorities (EU accession countries, North America and Eastern Asia). Residents born in North America tend to inhabit urban and rural areas to a similar extent.

Another differentiating factor is the degree to which populations are concentrated within London’s EMR or scattered across England. Residents born in Bangladesh and Nigeria appear to be highly concentrated in the capital. This contrasts with other groups, such as those born in Pakistan, India and Jamaica that have significant populations in London, but also in the Birmingham and Manchester-Liverpool EMRs. But even here contrasts can be found: while those born in Pakistan inhabit all three EMRs to a proportionate degree, those born in India and Jamaica tend to have their second population cluster in Birmingham’s EMR.
Figure 7: Different settlement patterns across England’s local authorities
LONDON MAPPING EXERCISE: EMR

The data presented above has shown that London, and especially London’s EMR, forms a particular window from which to study the wider patterns of migration discussed here: it contains a quarter of the UK’s population, 69% of all the countries of birth represented in the UK and the distribution of its migrants by the HDI of their country of birth mirrors that of the UK. To better gauge the finer grain differences in the settlement patterns of country of birth groups, the MSOA (the Medium Super Output Area) will be used for mapping here.

The map of the distribution of the UK-born population in London’s EMR in figure 8 below highlights the special case of Greater London, a large proportion of which features a minority UK-born population. Luton, Slough and Reading also show large concentrations of non-UK born populations. In general, there is a strong contrast between the Western, more diverse, section of the EMR and its Eastern portion in which percentages of the UK-born over 90% are the norm. We can now move on to a more detailed investigation of those migrant groups that make up the non-UK born population.

![Figure 8: Distribution of the population born in the UK in London’s EMR](image)

We will first focus on the six largest migrant groups in London’s EMR, namely, those born in India, Poland, Ireland, Pakistan, Nigeria and Bangladesh. The six maps in figure 9 below were created individually using the following method: the percentage of the total population of each migrant group was calculated for all MSOAs in London’s EMR and then mapped. For clarity, all MSOAs with a share of the population lower than 0.1% were coloured in white. What these maps are highlighting are thus those MSOAs in which the percentage of a particular population is significant – these are thus areas in which there is a strong concentration of that migrant population.
Figure 9: Distribution of the largest migrant groups in London’s EMR
We can immediately see that there are a number of different settlement patterns within these six migrant groups. The case of those born in Ireland is perhaps the most dissimilar from the others with its lack of clear clusters: individuals born in Ireland can be found in each and every MSOA of London’s EMR, with a slight emphasis on the North and Western portions of Greater London. There is also a smaller cluster in Luton, the only such concentration outside of Greater London. Interestingly, Individuals born in India can also be found in all 1891 MSOAs of London’s EMR. There seem to be two main clusters of population here: a smaller one in the North East of Greater London (Newham) and a much larger one extending from North-Western Greater London (Brent, Ealing, Hounslow) to Slough. There are no other notable clusters of this population throughout London’s EMR.

Those born in Pakistan share a number of similar clusters: Ealing to Slough and North-Eastern Greater London (Redbridge and Newham). However, this population clusters in larger number of places and some, such as Luton and Wycombe, are quite distant from Greater London. This settlement pattern is actually quite similar to that of those born in Poland: with the exception of Redbridge and Newham, most of the clusters of those born in Pakistan and Poland overlap. This is the case for Slough, Luton and Ealing. Individuals born in Poland can be found in all but one of the 1891 MSOAs of London’s EMR while there are 39 MSOAs without any residents born in Pakistan.

In contrast, those born in Nigeria and Bangladesh present more concentrated settlement patterns. Residents born in Nigeria are concentrated in an arc that goes from the South of Greater London to Thurrock through a number of London boroughs: Southwark, Lewisham, Greenwich, Bexley and Barking and Dagenham. And those who were born in Bangladesh centre on the London Boroughs of Tower Hamlets and Newham, with another smaller cluster in Luton. There are 19 MSOAs in London’s EMR where there are no Nigerian born residents, and 77 without Bangladeshi born residents.

To tease out some the differences in the settlement patterns of different migrant groups, we can turn the comparison of other pairs of populations. A difference with the first maps is that white MSOAs are now those where there are no residents of the particular group mapped. There are many more such comparisons that can be made between the 23 migrant groups for which data is provided for MSOAs in the 2011 census.

The first comparison is between those born in Sri Lanka and those born in Jamaica, shown in figure 10 below. Both groups are present in similar numbers of EMRs and have three main clusters in Greater London, with no apparent clusters in the rest of the EMR. The difference here is that the clusters of Jamaican born residents seem slightly more centrally located than those of Sri Lankan born residents. This is especially the case for the Jamaican cluster in the South of Greater London (Croydon, Lambeth, Southwark and Lewisham), and to a lesser extent with the cluster in Brent.
The second comparison can be seen in figure 11 below on the populations born in Somalia and Turkey. These two groups have been juxtaposed because they provide very different patterns of settlement in London’s EMR. There are no residents born in Somalia in 740 of the 1891 MSOAs of London’s EMR, the highest number in the sample of 23 countries available in the dataset. This can be seen in the number of white MSOAs, both within and outside of Greater London. In contrast, Turkish born residents, with a similar overall population, are only missing from 48 MSOAs. A second contrast can be seen in the pattern of settlement within Greater London: while Turkish born residents cluster very strongly in the North-East (Enfield, Haringey and Hackney), Somali born residents can be found throughout its West and North (with notable peaks in Ealing and Brent).
Figure 11: A comparison of the distribution of residents born in Somalia and Turkey within London’s EMR

LONDON MAPPING EXERCISE: GREATER LONDON

Now that we have seen the settlement patterns of a variety of country of birth groups within London’s EMR, we can zoom-in to Greater London to more clearly witness the distribution of these groups within the core of London’s EMR. The two figures below show the distribution within Greater London of the ten top country of birth of birth groups: Figure 12 shows the first five and Figure 13 the second five.

There are very marked differences in settlement patterns across the Southern and Northern banks of the Thames. Some groups can be found predominantly north of the river, such as residents born in India, Bangladesh and Somalia and to some extent those born in Pakistan, Poland. The other five groups have strong concentrations on both banks of the river. Residents born in Nigeria and Pakistan have the largest concentrations on the South Bank.

Another differentiating factor is the number of clusters that can be observed within Greater London for the top ten migrant groups. At one extreme, there is no clear cluster of residents born in Ireland. At the other, those born in India and Pakistan can be found clustered in four locations each. In between these two extremes, a number of possibilities exist. Residents born in Bangladesh and France tend to be found in a single cluster. There are two identifiable clusters of residents born in Nigeria, while residents born in Poland, Jamaica, Somalia and Sri Lanka can be found clustered in three locations each.
Figure 12: Distribution of the five largest migrant groups in Greater London
Figure 13: Distribution of the next five largest migrant groups in Greater London
We can now shift the focus from migrant groups to the MSOAs themselves. The maps in Figure 14 below are an attempt to draw out some of the differences between MSOAs on the basis of the number of groups that reside there at different concentrations levels.

*Figure 14: Diverse MSOAs at different levels of concentration*
These maps have been constructed by using data on the 27 migrant groups for which individual records at the MSOA level have been released[^3]. The percentage of the total resident population of each of these groups was computed for all MSOAs in Greater London. This data was then standardised using the z-score. The six maps above show the number of these 27 migrant groups represented in the Greater London MSOAs at different levels of concentration (computed based on the number of standard deviations from zero, the average), ranging from mid-level concentration for one standard deviation from the mean to extreme concentration at 6 standard deviations from the mean. A migrant group is thus represented on the map if it makes up a proportion of the total resident population of an MSOA that is a given number of standard deviations above the average proportion of that migrant group in the resident population of all MSOAs in Greater London.

For example, the map at the top left corner of Figure 14 represents, for each MSOA, the number of migrant groups out of the 27 whose proportion of the total resident proportion in that MSOA is one standard deviation above their average proportion for all MSOAs in Greater London. From this map, we can see large parts of Greater London have numerous migrant groups at this level of concentration. Westminster, Kensington and Chelsea and the City of London have the highest average migrant groups represented among their MSOAs at this level of concentration (above 7), followed by Brent, Newham, Camden, Islington and Hammersmith and Fulham. At the other extreme, there are four London boroughs with less than one migrant group out of the 27 represented on average across its MSOAs at this level of concentration (Bromley, Havering, Bexley and Sutton), and ten boroughs with between 1 and 3 migrant groups represented on average.

By increasing the number of standard deviations from the mean, we can begin to see the difference between areas in London in which a large number of groups can be found at medium concentration levels and those areas where a few migrant groups can be found at extreme concentration levels. Schematically, the centre of Greater London belongs to the first category, while areas in the North West, South West and East of London tend to belong to the second. This can be seen by the fact that the prominence of the centre of London tends to fade as the number of standard deviations is increased. The difference between these two types of MSOAs (plurality of mid-level concentrations and extreme concentrations of a limited number of groups) is important to bear in mind when discussing local experiences of migration.

Another interesting observation comes out of a closer look at the data used to create these maps: at every level of concentration, there is a diversity of MSOA experiences of migration. One can broadly distinguish between three types of MSOAs: those have concentrations of residents from predominantly wealthier countries[^4] (type 1), those that have concentrations of residents from predominantly poorer countries (type 2) and those MSOAs that have similar concentrations of residents from wealthier and poorer countries (type 3). At every of the six levels of concentration presented in the maps above, these three types of MSOAs can be found in similar proportions: out of 651 MSOAs with over two migrant groups at one standard deviation from the mean, 159 are of type 1, 295 of type 2 and 197 of type 3. At three standard deviations, the respective figures are 28, 56 and 52. And at five standard deviations, they are 6, 12 and 5.

It may be worth giving some examples of these types of MSOAs to make this point clearer. We can focus on one standard deviation from the mean. At this level of concentration, we can find Westminster 14, an MSOA which centres on Westbourne Green in West London. Here, there are ten

[^3]: Ireland, France, Germany, Italy, Portugal, Spain, Lithuania, Poland, Romania, Turkey, Ghana, Nigeria, Kenya, Somalia, South Africa, Zimbabwe, Iran, China, Hong Kong, Bangladesh, India, Pakistan, Sri Lanka, Philippines, United States, Jamaica and Australia.

[^4]: These countries all had GDP PPP per capita figures of over USD 14,000 in 2010: Ireland, France, Germany, Italy, Portugal, Spain, Lithuania, Poland, Hong Kong, the United States and Australia.
migrant groups with medium levels of concentration: Ireland, France, Germany, Italy, Portugal, Spain, Iran, Hong Kong, the United States and Australia. This is without doubt a highly diverse type 1 MSOA. At the other extreme, we have Redbridge 30, the MSOA centred on Ilford in East London in which there are nine migrant groups at this concentration level: Lithuania, Romania, Kenya, Somalia, Zimbabwe, Bangladesh, India, Pakistan and Sri Lanka. This is a highly diverse type 2 MSOA. As an example of a type 3 MSOA, we can take Brent 31, the MSOA centred on Harlesden in North West London. Here there are again nine groups with concentrations at this level: Ireland, Portugal, Spain, Poland, Romania, Ghana, Somalia, the Philippines and Jamaica. These three MSOAs are all highly diverse but it is clear that they represent very different experiences of diversity. These three types of MSOAs can be found at all concentration levels discussed here.

CONCLUSION

This working paper has presented data and maps from an ongoing investigation into the settlement patterns of migrant groups in the UK and within London by country of birth. What is clear from the work that has been done so far is the diversity of migration experiences, in terms of geographical scale, country of birth and levels of concentration. This dataset opens the possibility for a number of interesting comparative experiences with regards to the settlement patterns of migrant groups across space.

Any comments or questions about the work that has been presented here are more than welcome.