

Policy Brief: Neighbourhood Change and Trajectories of Inequality in Britain, 1971-2011

Dr. Francisco Rowe, Nikos Patias & Dr. Dani Arribas-Bel

The Geographic Data Science Lab at the University of Liverpool

February 2020

The following Think Piece has been submitted to the UK2070 Commission in response to its Call for Evidence. The views expressed are those of the author, and not the Commission.









Policy Brief: Neighbourhood Change and Trajectories of Inequality in Britain, 1971-2011

Francisco Rowe a,*, Nikos Patias a, Dani Arribas-Bel a

^a Geographic Data Science Lab, Department of Geography and Planning, University of Liverpool, Liverpool, United Kingdom

*Corresponding author: F.Rowe-Gonzalez@liverpool.ac.uk

Introduction

This briefing is part of a large four-year PhD project assessing the extent, sequence, pace and spatial pattern of neighbourhood change in Britain over a 40-year period from 1971 to 2011. The project is funded by the Economic and Social Research Council (ESRC) and the Ordnance Survey through the Data Analytics and Society Centre for Doctoral Training.

Neighbourhoods are the basic living cells of the system of human settlements. They shape local and national patterns of social cohesion and economic growth by influencing individual wellbeing across the life span, and the social and economic fortunes and prosperity of cities and towns. Blighted neighbourhoods, characterised by high incidence of poverty, crime, unemployment and crumbling infrastructure, have been found to curb individual salary prospects, health, educational and employment outcomes. 1.2 These disadvantageous individual outcomes negatively impact local development and society as a whole, reproducing spatial socio-economic inequalities. 1

This briefing focuses on the geographical structure and temporal change of neighbourhoods in Britain between 1971 and 2011. The project has used the methodology developed by the PopChange project3 to create temporally- and geographically-consistent 1km gridded data sets of population counts, encompassing demographic, socioeconomic and housing attributes, from the Censuses Britain conducted in 1971, 1981, 1991, 2001 and 2011.

Key points:

- Between 1971 and 2011, struggling neighbourhoods remained largely concentrated in North West, North East England and Scotland.
- More affluent and thriving neighbourhoods clustered across London, South East and South West England.
- There was a considerable decline in the number of struggling neighbourhoods in Scotland between 1971 and 2011.
- Major British cities experienced large increases in the number of multicultural neighbourhoods.
- Rural and suburban areas have remained home to thriving and mixed workers suburban neighbourhood types.
- The number of thriving and mixed workers communities neighbourhood types has undergone a considerable rise.
- Blue collar families neighbourhoods have practically disappeared.
- Urban renewal and regeneration processes have primarily taken place in old striving neighbourhoods.
- Struggling neighbourhoods have evolved from being main centres of unemployment to including neighbourhoods with a large shares of council rented housing in 1971.

Defining a typology of neighbourhoods

Neighbourhoods can be characterised in a variety of ways. Geodemographic classification⁴ provides an effective approach to represent the internal socio-economic structure of neighbourhoods and it is used here to identify eight neighbourhood signatures based on the gridded data from the British 1971 to 2011 censuses. These signatures were defined using k-means clustering applied to data capturing three key dimensions: *demographic* (the percentage of population by age band, ethnicity and student status), *socio-economic* (the percentage of population by socio-economic group, mode of travel to work, and unemployment status) and *housing* (the percentage of population by home ownership status, and vacancy rate) dimensions.5

The most prominent features of the eight types of neighbourhoods are (Fig. 1):

- 1. Affluent neighbourhoods: large shares of managerial and professional non-manual occupations and owned houses.
- 2. <u>Mixed workers suburban neighbourhoods</u>: high shares of manual and non-manual workers of British nationality in suburban areas.
- 3. <u>Families in council rent neighbourhoods</u>: high shares of households with children living in council rented housing, in manual occupations and of British nationality.
- 4. <u>Blue collar families neighbourhoods</u>: high shares of manual workers and children using active modes of commuting (i.e. walking or cycling).
- 5. Thriving suburban neighbourhoods: high shares of middle-age and older adults, living in owner occupied housing and working in non-manual occupations.









- 6. Older striving neighbourhoods: high shares of retirees and vacancy rates.
- 7. Struggling neighbourhoods: high shares of British born and unemployed population.
- 8. <u>Multicultural urban neighbourhoods</u>: high shares of young, middle aged and student populations from ethnically diverse background, living in private rented housing and heavy users of public transport.

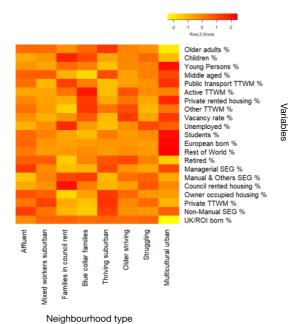


Fig. 1. Representative variables across neighbourhood type.

What is the spatial distribution of neighbourhood types?

Analysing the frequency of neighbourhoods by type across the 11 regions of Britain for each census year reveals a persistent North-South polarisation of socio-economic inequalities (Fig. 2 and Fig. 3). Struggling neighbourhoods have consistently been more prevalent in northern regions encompassing North West, North East England and Scotland, while thriving and affluent neighbourhoods have prevailed in southern regions across London, South East and South West England. Finally, blue collar families neighbourhoods disappear across all British regions after 1991 and are replaced mainly by older striving and mixed workers suburban highlighting the shift to a service-based economy.

The spatial structure of these inequalities has, however, changed considerably in specific regions since 1971. The number of struggling neighbourhoods have declined in Scotland, with a corresponding rise in the number of thriving and affluent neighbourhoods, reflecting the rapid growth of the Scottish economy in the mid-1980s.

An outstanding feature is the considerable increase in the number of multicultural urban and affluent neighbourhoods in London, particularly in the inner city centre and immediate surrounding suburbs. This pattern reproduces the existing socioeconomic gap between the Greater London and the rest of Britain, and reveals marked patterns of spatial socio-economic residential segregation across the country. Outside London, the city centres of major urban conurbations, such as Manchester, Leeds, Birmingham, Liverpool, Glasgow and Edinburgh have increasingly been the primary home to multicultural urban neighbourhoods, while rural and suburban areas have been the main residence to thriving and mixed workers suburban neighbourhood types.

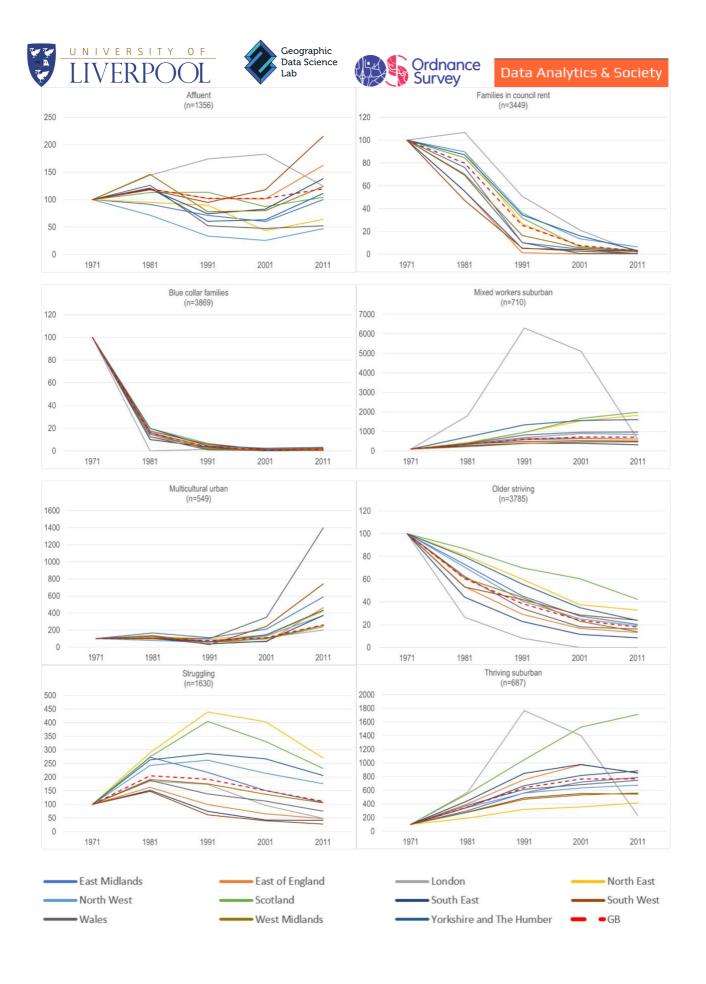


Fig. 2. Neighbourhood trends by neighbourhood type for each census year, 1971-2011. *Base year = 1971. Number of neighbourhoods for the base year in brackets.*

Fig. 3 Neighbourhoods by type, 2011. Explore our interactive map: https://bit.ly/2DT8011

How has the neighbourhood structure of inequality changed?

Examining the transition of neighbourhoods between neighbourhood types over 1971 and 2011 (Fig. 4), patterns of neighbourhood stability and change emerge. Fig. 5 shows the ways in which neighbourhoods have transitioned between neighbourhood types between 1971 and 2011. Seven main patterns are identified:

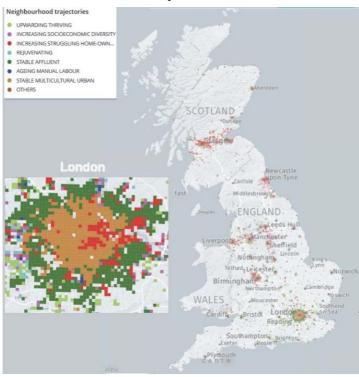


Fig. 4. Neighbourhoods by trajectory, 2011. *Explore the spatial patterns of these trajectories on our interactive map*: https://bit.ly/2KHqq6N

1. Stable affluent neighbourhoods: Areas remaining persistently affluent over 1971 and 2011.









- 2. <u>Up-warding thriving neighbourhoods</u>: Areas transitioning from an older striving type to, or remaining in, a thriving suburban type.
- 3. <u>Increasingly socio-economically diverse neighbourhoods</u>: Areas transitioning from a struggling or blue collar families type to a mixed workers suburban type.
- 4. Stable multicultural urban neighbourhoods: Areas remaining multicultural in urban locations.
- 5. Rejuvenating neighbourhoods: Areas transitioning from an older striving type to a mixed workers suburban type.
- 6. Ageing manual labour neighbourhoods: Areas transitioning from being dominated by blue collar families to an older striving neighbourhood type.
- 7. Increasingly struggling home-owners neighbourhoods: Areas transitioning from a families in council rent type to a struggling type.

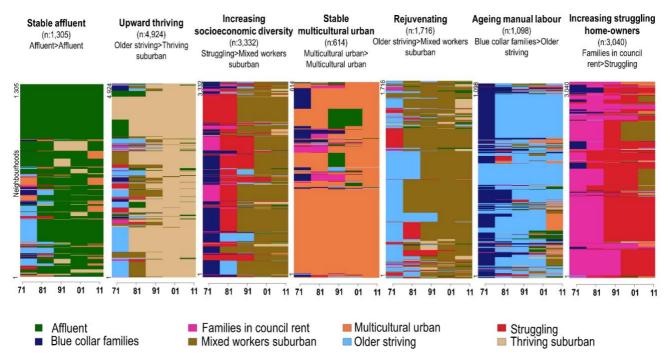


Fig. 5 Neighbourhood transitions between neighbourhood types, 1971-2011.

These neighbourhood trajectories reflect remarkable changes in the geographical structure of socio-economic inequality. First, the number of thriving neighbourhoods has considerably increased, reflecting the transition of older striving ones: neighbourhoods with high shares of retirees and vacancy rates to encompass relatively high shares of middle-age and older adult working-age populations, living in owner occupied housing and working in non-manual occupations. This change is captured in the trajectory of *up-warding thriving* neighbourhoods, and can be seen as a positive consequence of structural economic changes – consistently low unemployment levels and a shift to non-manual labour – on the national neighbourhood hierarchy, as it increases the number of communities flourishing socio-economically.

Second, the number of mixed-worker communities has also experienced a considerable rise captured by the *increasing socioeconomic diversity* trajectory. This trend has mirrored a decline of struggling and older striving neighbourhoods, as their shares of working-age population have increased after the industrial decline in the 1980s. Third, blue collar families neighbourhoods have practically disappeared, reflecting the shift of the economy from industrial manufacturing jobs to service activities. Partly reflecting their ageing populations and less advantageous socio-economic position, they have been replaced for older striving and struggling neighbourhood types. Fourth, as captured by the *ageing manual labour* trajectory, older striving neighbourhoods have remained home to retiree populations and kept high vacancy rates, and about one in three of these neighbourhoods has experienced considerable changes, sheltering larger shares of socio-economically diverse populations – primarily manual and non-manual workers of British nationality in suburban areas.

Fifth, older striving neighbourhoods have been replaced for mixed workers neighbourhoods with younger populations, reflecting processes of urban renewal and regeneration in suburban areas. This replacement process is captured in the *rejuvenating* trajectory and has involved suburban neighbourhood scattered across urban and rural areas. Sixth,







Data Analytics & Society

neighbourhood patterns of affluence, multiculturalism and socio-economic struggle are remarkably persistent. As captured by the trajectories of *stable affluent* and *stable multicultural urban*, neighbourhoods which were affluent and multiculturally diverse in the 1970s have largely remained unchanged over the last 40 years. Similarly, as captured by patterns of increasing struggling home-owners, neighbourhoods which faced socio-economic struggles (i.e. neighbourhoods with large shares of households with children living in council rented housing and performing manual jobs) in the 1970s have endured socio-economic difficulties over the last four decades. While many of these neighbourhoods had larger shares of home-owners in 2011, they are key centres of unemployment. Such neighbourhoods are predominantly in suburbs close to the centre of major cities, including London, Manchester, Birmingham, Liverpool, Glasgow and Edinburgh.

References

- Galster, G.C., 2012. The mechanism (s) of neighbourhood effects: Theory, evidence, and policy implications. In *Neighbourhood effects research: New perspectives* (pp. 23-56). Springer, Dordrecht.
- ² Chetty, R. and Hendren, N., 2018. The impacts of neighborhoods on intergenerational mobility I: Childhood exposure effects. *The Quarterly Journal of Economics*, 133(3), pp.1107-1162.
- ³ Lloyd, C.D., Catney, G., Williamson, P. and Bearman, N., 2017. Exploring the utility of grids for analysing long term population change. *Computers, Environment and Urban Systems*, 66, pp.1-12.
- 4 Webber, R., & Burrows, R. (2018). The Predictive Postcode: The Geodemographic Classification of British Society. SAGE.
 5 Patias, N. Rowe, F. and Cazzani, S., 2018. A scalable analytical framework for spatio-temporal analysis of neighbourhood change: A sequence analysis approach. Prepared for the Association of Geographic Information Laboratories in Europe (AGILE) 2019: Geospatial Technologies for Local and Regional Development. Limassol, Cyprus on 17-20 June, 2019

How to cite:

Rowe, F., Patias, N. and Arribas-Bel, D., 2018, Neighbourhood Change and Trajectories of Inequality in Britain, 1971-2011. Policy Brief 1. Geographic Data Science Lab, University of Liverpool.