



Social Mobility
Commission



Spatial agglomeration, productivity and inequality

Think piece
July 2024



© **Social Mobility Commission 2024**

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit

nationalarchives.gov.uk/doc/open-government-licence/version/3

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at **<http://www.socialmobilitycommission.org/>**

Any enquiries regarding this publication should be sent to us at:

The Social Mobility Commission

1 Horse Guards Road

London

SW1A 2HQ

contact@socialmobilitycommission.gov.uk

About the Commission

The Social Mobility Commission is an independent advisory non-departmental public body established under the Life Chances Act 2010 as modified by the Welfare Reform and Work Act 2016. It has a duty to assess progress in improving social mobility in the UK and to promote social mobility in England. The Commission board comprises:

Chair

Alun Francis OBE, Principal and Chief Executive of Blackpool and The Fylde College.

Deputy Chairs

Resham Kotecha, Head of Policy at the Open Data Institute.

Rob Wilson, Chairman at WheelPower – British Wheelchair Sport.

Commissioners

Dr Raghiv Ali, Senior Clinical Research Associate at the MRC Epidemiology Unit at the University of Cambridge.

Ryan Henson, Chief Executive Officer at the Coalition for Global Prosperity.

Parminder Kohli, Senior Vice President EMEA at Shell Lubricants.

Tina Stowell MBE, The Rt Hon Baroness Stowell of Beeston.

This commentary was written by Dr Monica Costa Dias, University of Bristol; and Luke Heath Milsom and Robert Joyce from the Institute for Fiscal Studies (IFS). The authors gratefully acknowledge the contributions from members of the SMC secretariat, and funding from the UKRI grant “Productivity, Wages and the Labour Market” (grant number ES/W010453/1), and the ESRC Institute for the Microeconomic Analysis of Public Policy at the IFS (grant number ES/T014334/1). The views expressed in this piece, and any errors, are those of the authors.

Contents

Contents	4
Foreword	5
Introduction	7
The degree of clustering of economic activity and skills in the UK	8
How clustering can lead to higher productivity and innovation	10
An equity–efficiency trade-off?	13
Density and within-location inequality	16
Are we in a ‘bad’ equilibrium?	18
Reflections on directions for policy	19
Conclusion	22
Bibliography	23

Foreword

At the Social Mobility Commission (SMC) we are interested in how the distribution of opportunity across geographical areas influences social mobility in the UK. This has been one of the stand out findings of our last two annual reports into the State of the Nation (2022, 2023), and our Data Explorer Tool - which looks in detail at regional data - will help support better place-based approaches to improving opportunity. There is now a growing sense that addressing regional disparities has become a central policy challenge and will remain so for some time. The questions are: what can be done, what should be done, and how?

In considering these issues, we are concerned that the debate about social mobility often takes place in isolation from discussions about a dynamic economy. Our “thinkpiece” on Innovation and Social Mobility makes the link between innovation, improved opportunity through competition between elite groups, and the wider social and economic benefits when this works well. Innovation and social mobility are inextricably linked, enabling us to think about the relationship between inequality, equality and opportunity in a different way.

In this “thinkpiece” we invited experts at the Institute for Fiscal Studies to consider the economic context of regional disparities. Although regional disparities present significant challenges, they are an important part of a vibrant economy, and the aim of policy cannot and should not be to seek to eradicate them. As the article explains, regional disparities exist in every country, because economic activity tends to be concentrated in urban centres. There are immense benefits to this process (which economists refer to as agglomeration), so it is in principle something we should support – because it generates growth. The question for our country, however, is whether agglomeration has become too extreme - particularly in London.

The evidence suggests that regional disparities in the UK are bigger than elsewhere. This is because finance and other tradeable services - the sectors which dominate our economy - , tend to benefit a lot from agglomeration. Businesses in these sectors also find it easier to cluster together in city centres because they exchange information rather than physical goods - which require more space and logistics. While this has provided the country with its economic strength, it has come with costs. There is a significant amount of inequality in life outcomes between London and the rest of the UK. But there is also a lot of inequality within London. These inequalities span a range of areas – from health, to wealth, to education and occupational choice. We hope to explore this in much more detail as we develop our place-based analysis of social mobility.

Our “thinkpiece” helps us to provide a context within which to consider regional disparities, but does not offer easy solutions in terms of changing the situation. It does indicate the wide range of policy levers – including tax, transport, business incentives, housing, education and employment policy – which have a role to play in addressing regional inequalities. However, it is not simply a question of flattening out opportunity so that everywhere is the same. Not every place can be economically dynamic, and different places will find different roles and purposes within a more regionally balanced economy. Place-based social mobility policy would have to take account of this, recognising the need to balance the need to “leave to achieve” with greater opportunities for those who stay. And how this works in different places will be shaped by their local context.

We have commissioned this work as part of a series of “think pieces” to help us develop an approach to social mobility which is directly aligned with the challenges our country now faces. The others include innovation and occupational regulation, and their common themes are about considering the role of the economy in general – and markets and regulation in particular – in supporting improved opportunity. These are neglected aspects of the debate about social mobility in the United Kingdom, but are, in our view, as important as the more conventional focus which has been on education and employment alone. This autumn we hope to produce a new policy framework, which brings our thinking about the economy, education and other factors into one single approach.

How economic opportunity and social mobility is distributed across the country is one of our most pressing issues. We hope our thinkpiece provides a starting point to help shape the public debate on how we can grow the economy whilst ensuring opportunities are spread across the whole of the UK.

Alun Francis

Chair, Social Mobility Commission

Introduction

In the UK, almost everyone does almost everything on only a tiny portion of its land. Only 10% of UK land is built on. But everyone lives in that 10%, and 99.6% of UK GDP is created there.¹ In this piece, we consider the implications of this high level of clustering of economic activity for productivity, innovation, inequality, and social and spatial mobility.

First, we set out the main facts that illustrate the degree of clustering. Second, we discuss the key reasons why people and jobs co-locate – ‘agglomeration effects’ – and how this can lead to higher productivity and innovation. Third, we highlight how such clustering can also lead to inequalities and can therefore set up a potential equity–efficiency trade-off. Fourth, we discuss within-location inequality and how large-scale clustering may create forces which actually reduce overall efficiency and productivity, as well as forces that increase it. We conclude by highlighting areas where further research is needed, and what types of policies could be most effective for a government concerned with both overall productivity and inequalities.

¹ Khan, J., Powell, T. and Harwood, A. (2011), Land use in the UK, Office for National Statistics (ONS).

The degree of clustering of economic activity and skills in the UK

British city centres account for 0.1% of the UK's landmass but 14% of its jobs and 8% of its businesses. Indeed, there are significantly more jobs in city centres than in the whole of the UK's rural areas, which account for 53% of the country's landmass, or 530 times more area than city centres. The UK is not alone in exhibiting a high degree of economic concentration across space, though the phenomenon is particularly acute here. Around 60% of UK output is generated by its cities whereas the equivalent figure for France is 50%, for Germany 36% and for Italy 32%.² London particularly dominates. It is the largest metro area in Europe, just ahead of Paris, generating about a quarter of UK GDP,³ whereas the largest metro areas in Germany and Italy comprise only about an eighth and a tenth of their respective countries' GDP.

The clustering of highly paid and high-paying jobs is even more extreme. Over half of the top 0.1% of income tax payers are based in London, and 10% of parliamentary constituencies account for half of the top 1% of earners.⁴ Although many of the UK's spatial differences are now longstanding, they continue to set the pattern for how new job opportunities are distributed, which has reinforced clustering over time. Between 1993 and 2022, the number of high-paying occupations (defined as those whose average wages put them in the top 40% of occupations) increased by 240% in London, but by only 41% in Cheshire.⁵ Of the occupations that are growing the most, those that do not require a degree are widespread geographically but those requiring a degree are heavily concentrated in London and the South East. This is not just a story of London versus the rest either – there is a fairly constant

² Serwicka, I. and Swinny, P. (2016), Trading places: the geography of businesses and jobs in Britain, Centre for Cities, www.centreforcities.org/reader/trading-places/geography-businesses-jobs-britain; Bessis, H. (2016), Competing with the continent: the role of cities in their national and European economies, Centre for Cities, www.centreforcities.org/reader/competing-with-the-continent/role-cities-national-european-economies. Cities correspond to Primary Urban Areas; more details, including a list of local authorities that make up cities, can be found in Centre for Cities (2022), Defining cities, www.centreforcities.org/wp-content/uploads/2022/08/2022-PUA-Table.pdf. Duranton, G. and Overman, H.G. (2008), Exploring the detailed location patterns of UK manufacturing industries using microgeographical data, *Journal of Regional Science*, 48(1), 213–243, present a similar discussion.

³ ONS (2023) Regional economic activity by gross domestic product, UK: 1998 to 2021, statistical bulletin, 25 April.

⁴ Joyce, R., Pope, T. and Roantree, B. (2019), The characteristics and incomes of the top 1%, Briefing Note BN 254, Institute of Fiscal Studies.

⁵ Xu (2023), The changing geography of jobs.

relationship between city population and the prevalence of high-skilled or ‘good’ jobs. Large cities such as Birmingham, Manchester and Leeds have also experienced significant growth in such occupations.

This clustering of the highest-paying jobs naturally coincides with a clustering of skills: 44% of 27-year-olds living in London have a degree, whereas only 12% of those living in Grimsby do.⁶ This reflects higher levels of educational attainment among those who grow up in London, but also the significant role of internal migration – in particular the large-scale ‘educational flight’ of graduates leaving their hometowns and flocking to London or a handful of other cities, and very few people heading in the opposite direction. By the age of 27, more than a third of graduates live in a different travel-to-work area from where they grew up (defined as where they lived at age 16), compared with 15% of non-graduates. About a quarter of the graduates who move end up going to London.⁷

⁶ Britton, J., Waltmann, B., Xu, X. and van der Erve, L. (2021), London calling? Higher education, geographical mobility and early-career earnings, Institute for Fiscal Studies, <https://ifs.org.uk/publications/london-calling-higher-education-geographical-mobility-and-early-career-earnings>.

⁷ A new tool by ONS describes patterns of internal migration. See Office for National Statistics (2024), Explore: which towns attract people with advanced education? www.ons.gov.uk/peoplepopulationandcommunity/educationandchildcare/articles/explorewhichtownsattractpeoplewithadvancededucation/2024-03-15.

How clustering can lead to higher productivity and innovation

Cities are noisy, polluted and very costly places to live and rent office space. Why would workers and firms choose to locate there? For people who start out in life there, the answer may be relatively straightforward: they have family, friends and community ties which make moving somewhere else (and somewhere cheaper) unappealing. We come to the implications of that later. For those who flock to cities, the economic literature has rationalised this in light of “agglomeration externalities”. First formalised by Alfred Marshall in 1890, these come in many forms that can be summarised as 3 forces: matching, sharing and learning.⁸ Firms are more productive in denser areas because (1: matching) thick labour markets result in better matches of workers to jobs; (2: sharing) suppliers and buyers are close, reducing transport and information costs and increasing market access; and (3: learning) knowledge spillovers allow individuals to learn on the job from more experienced and productive peers. Workers then choose to be close together because more productive firms pay higher wages. Similar forces also explain why cities disproportionately provide amenities (restaurants, shopping, cinema, good schools etc.) that attract even more people to a location.

Evidence of agglomeration economies resulting in higher local productivity and wages is not hard to find. Overman and Xu show that wages in London are 60% higher than those in Grimsby.⁹ Once variation in housing costs is taken into account, ‘real’ wages vary considerably less than these nominal differences. Especially for low-income households, which spend a larger proportion of their income on housing, much of the income benefit of living in a denser area may be eaten up (a point that we return to later). However, high-wage individuals undoubtedly still tend to benefit considerably.¹⁰ Brandily and colleagues show that gross value added per job (i.e. productivity) in London is around double that in Herefordshire, at almost £80,000.¹¹ Combes and colleagues and De La Roca and Puga, among others, find

⁸ Marshall, A. (1890), *Principles of economics*, eighth edition, Cosimo Inc.

⁹ Overman, H. and Xu, X. (2022), *Spatial disparities across labour markets*, The IFS Deaton Review of Spatial Inequalities, Institute for Fiscal Studies, <https://ifs.org.uk/inequality/spatial-disparities-across-labour-markets>.

¹⁰ See also Diamond, R. and Moretti, E. (2023), *Where is standard of living the highest? Local prices and the geography of consumption*, Working Paper w29533, National Bureau of Economic Research.

¹¹ Brandily, P., Distefano, M., Donnat, H., Feld, I., Overman, H.G. and Shah, K. (2022), *Bridging the gap: what would it take to narrow the UK’s productivity disparities?* Resolution Foundation.

evidence that such density–wage and density–productivity relationships are likely also causal.¹²

As noted, the clustering of people and firms seems especially strong in the UK. There are multiple potential reasons for this. One obvious factor that has become an increasingly stark feature of the UK economy is its sectoral composition. Sectors face different costs as a result of, and benefits from, agglomeration.¹³ It's difficult for agricultural firms or jobs to locate close to each other, and any sector that requires significant amounts of physical goods to be transported in and out of the workplace will find that congested cities pose a problem. Finance and other tradeable services stand out as being sectors that exhibit significant agglomeration benefits with very little downside. This is because firms in these sectors have limited space requirements and rely on the exchange of information rather than physical goods. The UK, and London in particular, is more reliant on this sector than other similar economies. Trade in services accounts for 27% of UK GDP, compared with an OECD average of 16%, and only 6% in the US.¹⁴

As well as increasing productivity today, agglomeration economies have been associated with greater innovation. Indeed, innovation activity tends to be even more clustered than industrial activity.¹⁵ Moretti shows that in the US, a computer scientist moving from the median cluster size to the 75th percentile cluster size would experience a 12% increase in productivity.¹⁶ This effect has also been detected in UK data. For instance, Helmers and Overman study the impact of a new synchrotron light source facility (which generates light beams for scientific research) on the geographical distribution of related research.¹⁷ They show a positive impact on local scientific output. Dense and thriving locations also tend to

¹² Combes, P.-P., Duranton, G., Gobillon, L., Puga, G. and Roux, S. (2012), The productivity advantages of large cities: distinguishing agglomeration from firm selection, *Econometrica*, 80(6), 2543–2594; De La Roca, J. and Puga, D. (2017), Learning by working in big cities, *The Review of Economic Studies*, 84(1), 106–142.

¹³ Guaitoli, G. (2024), Firm localness and labour misallocation, working paper, Department of Economics, University of Warwick, https://warwick.ac.uk/fac/soc/economics/staff/gguaitoli/guaitoli_gabriele_jmp.pdf.

¹⁴ World Bank (2022), Trade in services (% of GDP): OECD members, United Kingdom, United States, France, Germany, Italy, <https://data.worldbank.org/indicator/BG.GSR.NFSV.GD.ZS?locations=OE-GB-US-FR-DE-IT>. Over three-quarters of the UK's trade in services is in high-end professional services such as financial or insurance services; see Department for Business and Trade (2024), UK trade in numbers (web version), www.gov.uk/government/statistics/uk-trade-in-numbers/uk-trade-in-numbers-web-version.

¹⁵ Carlino, G. and Kerr, W.R. (2015), Agglomeration and innovation, in Duranton, G., Henderson, J.V. and Strange, W.C. (eds), *Handbook of regional and urban economics*, volume 5 (pp. 349–404), Elsevier Science Direct.

¹⁶ Moretti, E. (2021), The effect of high-tech clusters on the productivity of top inventors, *American Economic Review*, 111(10), 3328–3375.

¹⁷ Helmers, C. and Overman, H.G. (2017), My precious! The location and diffusion of scientific research: evidence from the Synchrotron Diamond Light Source, *The Economic Journal*, 127(604), 2006–2040.

have higher-quality education establishments at all levels, leading to greater local training and accumulation of human capital. Whichever specific mechanism is at play, it is clear that larger cities are hotbeds of innovation.

An equity–efficiency trade-off?

Economic activity in the UK is very clustered, but we have outlined some ways in which this can be productivity- and welfare-enhancing. If firms are more productive and innovative because they are located together, and this means that workers have higher wages and enjoy greater urban amenities, then this pattern sounds like a good thing. Perhaps we want as much of it as possible?

However, the narratives of left-behind locations, gentrification and regional deprivation caution against such a one-sided assessment. The continued national debate and political salience of the issue suggest that people care about geographical inequalities. In the IFS Deaton Review’s Attitudes to Inequalities survey, area-based inequality tops the list of the most serious inequalities that people care about.¹⁸

It is not difficult to see why spatial inequalities would tend to strike many as relatively unfair forms of inequality. In general, people think that the processes that generate an inequality are important in determining whether it is fair, and they tend to look less favourably on inequalities that arise through mechanisms that people cannot control. Clearly, no-one controls where they are born. They have some control over whether they later move, but there are many barriers or costs associated with moving (especially long distances), so it is not equally straightforward for everybody to locate close to economic opportunity. Moving away from family, established friends and communities obviously comes with downsides. So does having to pay more for housing in a higher-cost area – a particular issue given that those costs must be faced immediately, whereas the career/wage benefits of moving to an economically thriving area can take years to fully accrue, as recent evidence from France shows.¹⁹

Such moving costs can bite harder for credit-constrained or otherwise relatively less well-off individuals. Those who do not have a well-off family with capital to help with the upfront costs of housing rents or a mortgage deposit can struggle to overcome these costs despite the potential benefits of moving being orders of magnitude greater. Individuals facing poverty also have bandwidth constraints that magnify housing search costs, further preventing possibly

¹⁸ Benson, R., Duffy, B., Hesketh, R. and Hewlett, K. (2021), Attitudes to inequalities: The IFS Deaton Review of Inequalities, Institute for Fiscal Studies, <https://ifs.org.uk/inequality/attitudes-to-inequalities>.

¹⁹ Bilal, A. and Rossi-Hansberg, E. (2021), Location as an asset, *Econometrica*, 89(5), 2459–2495.

lucrative moves.²⁰ In addition, social housing can make it significantly harder for the less well-off to move due to severe capacity constraints in the system. Finally, this group is less likely to complete university education, where the government provides loans and subsidies which encourage geographical mobility, often to the highest-opportunity areas. Those pursuing apprenticeships or vocational training are not provided with equivalent support to move.

In sum, because people are not endlessly and costlessly mobile (and even more so given that the barriers and constraints to moving differ across people), lots of spatial clustering of economic opportunity clearly translates into deeply unequal economic opportunities. This seems to spill over into all sorts of important domains of life. For example, those living in the South East of England have on average 6 more healthy life years than those in the North East.²¹

The picture that is emerging so far sounds rather like a spatial variant of a trade-off between equity and efficiency that economists often refer to. On the one hand, the increased concentration of economic activity could lead to higher productivity (and innovation) locally, benefiting those who are there or who move there. On the other hand, people not fortunate enough to grow up in the agglomerating location are denied the same degree of opportunity – particularly, perhaps, if they are from a poor family background, which may well make it harder to afford to move. This would suggest that if, for example, some of the economic activity taking place in London could be picked up and placed in Grimsby, then some people in Grimsby could benefit while some people in London would do somewhat less well than they are currently doing (a reduction in inequality). However, the country in aggregate would be poorer, because that activity is more productive in London, at least partly due to the greater agglomeration effects that London enjoys. According to this framework, to evaluate whether this is an improvement overall, one would have to decide whether one values equality enough to justify the aggregate cost.

The idea implicit in the phrase ‘levelling up’, however, is that poorer places could be raised up without dragging others down. In other words, it suggests that, at least under some circumstances, the simple spatial equity–efficiency trade-off is, arguably, too simple. Below

²⁰ Bergman, P., Chetty, R., DeLuca, S., Hendren, N., Katz, L.F. and Palmer, C. (2019), Creating moves to opportunity: experimental evidence on barriers to neighborhood choice, Working Paper w26164, National Bureau of Economic Research. ‘Bandwidth constraints’ refers to mental costs associated with allocating sufficient time and energy to a complex task such as searching for a new house. These can be particularly binding for those in relative poverty who face substantial additional stresses and constraints.

²¹ Bambra, C. (2016), Health divides: where you live can kill you, Policy Press.

we outline a way of making sense of this notion, even in the face of the productive benefits of agglomeration just described.

Density and within-location inequality

The observed concentration of economic activity can lead to aggregate productivity gains and, due to costs or barriers to mobility, inequalities across space that might be considered unfair. But it can also lead to very significant inequalities *within* areas, particularly for certain kinds of areas. More people in a location causes the demand for land to rise, putting upward pressure on prices. In the UK, local housing supply is not very reactive to changes in house prices, which means that spatial variation in demand for land – caused, for example, by variation in job opportunities – translates into a lot of spatial variation in housing costs.²² On average, a 1% increase in a locality's wages is associated with a 5% increase in rents.²³ The latest figures from the Office for National Statistics (ONS) for England during the year to September 2023 show that the bottom quartile of rents in London for a one-bedroom flat was over twice as high as for the whole of England, and almost 3 times higher than in the North East.²⁴ For those on low wages in high-cost areas, this can be an especially big problem: not only because housing and other necessities will tend to take up a relatively high fraction of their budget, but also because those working in lower-wage jobs often benefit less from the agglomeration that drives up costs in the first place. In large cities, those on low pay can therefore be worse off than those working in similar jobs in smaller towns.²⁵ Compounding these within-area inequalities in big metropolises, local amenities in high-density areas are often built to cater disproportionately for high earners.²⁶ A hipster cafe selling £5 flat whites, or a new high-end escape room venue, might do little to increase the local amenity value for someone on minimum wage.

In fact, there may be even more caveats for the lower paid when it comes to the benefits of living in high-density areas, depending on the line of work they are in. As discussed, a key

²² Drayton, L., Levell, P. and Sturrock, D. (2023), The micro-geography of housing supply in England, working paper, <https://congress-files.s3.amazonaws.com/2023-07/The%2520Microgeography%2520of%2520Housing%2520Supply%2520in%2520England.pdf>.

²³ Overman and Xu (2022), Spatial disparities across labour markets.

²⁴ See North, A. (2023), Private rental market summary statistics in England, ONS, www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/privaterentalmarketsummarystatisticsinengland.

²⁵ Diamond and Moretti (2023), Where is standard of living the highest? Local prices and the geography of consumption.

²⁶ Diamond, R. (2016), The determinants and welfare implications of US workers' diverging location choices by skill: 1980–2000, *American Economic Review*, 106(3), 479–524.

feature of agglomeration economies is interactions and knowledge spillovers between individuals. In particular, interacting with high-skill, high-pay workers in an innovative firm can be beneficial in creating learning opportunities and networks, thereby facilitating the matching of workers to jobs that are well suited to their skills and career progression.²⁷ Because cities – and in the UK’s case, London in particular – tend to contain a disproportionate number of graduates, one might think that workers with lower levels of education in such cities would have a greater chance of working in this sort of environment than if they were in less urban areas. But in fact, the high density of workers in cities also has the effect of increasing the viability of agencies specialising purely in the flexible supply of workers of a single occupation. In 2011, 58% of elementary workers in London were in occupationally segregated workplaces, compared with just 18% in other regions.²⁸ Such occupational segregation can be found in the hospitality sector everywhere, and increasingly in occupations such as security, cleaning and even human resources.

This discussion highlights the importance of not considering spatial inequalities in a vacuum – or of thinking about ‘levelling up’ areas in a vacuum. The same forces that can leave behind large areas of the country can also create difficulties for those on lower incomes who are in the supposedly ‘lucky’ areas. These individuals will experience many of the costs of agglomeration (high housing costs, pollution etc.) but it is less assured that they will reap all of the benefits. A very similar caution applies to poorer areas that might experience an overall improvement in economic fortunes (perhaps due to the success of some sort of levelling-up programme), and hence an increase in the price of land. Depending on how policy is designed, people on low incomes in those poorer areas will not necessarily be the ones who reap the benefits, but they will still face the higher costs.

²⁷ Lhuillier (2024); Martellini, P. (2022), Local labor markets and aggregate productivity, working paper, Federal Reserve Bank of Minneapolis, https://economics.yale.edu/sites/default/files/martellinip_jmp.pdf; Crews, L.G. (2023), A dynamic spatial knowledge economy, unpublished paper, www.levicrews.com/files/p-dske_paper.pdf; Aghion, P., Bergeaud, A., Blundell, R.W. and Griffith, R. (2023), Social skills and the individual wage growth of less educated workers, SSRN Scholarly Paper, <https://doi.org/10.2139/ssrn.4578419>.

²⁸ Xu (2023), The changing geography of jobs.

Are we in a 'bad' equilibrium?

We have explained how spatial clustering of economic activity can improve productivity, but that in the presence of barriers and costs to internal migration, it also disequalises economic opportunity across people.

But disparity in opportunity can also become an efficiency issue, because it means that some talents are under-utilised. Efficiency requires that the set of people doing a job are the people best suited to doing that job. If factors besides suitability for the tasks of the job (and the preferences of workers themselves) come into play, the resulting 'mismatch' creates inefficiency. This point has been made powerfully in recent years by research on the impacts of growing labour market opportunities for women and ethnic minorities, which have not only narrowed inequalities but also made the country as a whole better off by meaning that it is not wasting talent.²⁹ The higher the barriers to spatial mobility are, the more one could think of spatial inequalities in the same light. More clustering of economic activity means economic opportunity moving far away from a growing segment of the population. That segment's talent will then tend to be under-utilised.

But if, by creating this form of mismatch, geographical disparity in opportunity can be inefficient, then is it always the case that agglomeration brings a trade-off between efficiency and equity? Or is it possible for a country to unambiguously 'go too far' in terms of spatial concentration, meaning that a less extreme form of concentration could be more efficient – by enabling a better use of talent – while also spreading opportunities more equally?

²⁹ Hsieh, C.-T., Hurst, E., Jones, C.I. and Klenow, P.J. (2019), The allocation of talent and U.S. economic growth, *Econometrica*, 87(5), 1439–1474.

Reflections on directions for policy

When an individual firm or person decides where to locate, their decision is by definition marginal in nature – meaning that they take the locations of all other firms and people as given, and then decide where is best for them to be in light of that. The aim of spatial policy is grander in scale: to reverse the fortunes of currently distressed areas very likely involves encouraging more clustering of activity (i.e. agglomeration effects) in those areas, resulting in many firms and people relocating. These aims are normally justified on equity grounds, but we can also think about efficiency in this bigger-picture manner. If a large share of bankers suddenly moved to Sheffield, would they be less productive? We would normally use the fact that they are in London (and not Sheffield) as evidence of London being better for their career. But this is a marginal argument – one additional banker wondering where to locate should definitely move to London because other bankers are there. Indeed, that is why the market produces this outcome – it is full of people and firms making marginal decisions about what is best for them given the spatial concentration of activity that already exists, which they cannot affect. But if, instead, bankers and their employers all moved together, bringing agglomeration benefits with them, it is less clear whether London would still hold anything special. Due to the self-perpetuating nature of clustering, the current geographical distribution of economic activity could to some extent simply be a historical fluke, and a big enough policy push could break it, potentially leading to a higher-productivity equilibrium. Quite what the push should be, and how big it would need to be to break the equilibrium in this way, is another issue, and beyond the scope of this piece. But targeted tax cuts, like those linked to the UK's current freeports policy, are one example of this sort of attempt. In other words, in this scenario perhaps the benefits of some of London's agglomeration could be replicated elsewhere, with the added benefit that this would move opportunity closer to more of the nation's talent.

For presumably some combination of the reasons discussed, governments often do think that something should be done about spatial inequality. Billions are being spent trying to address it. The case for intervention of some kind is not hard to make. The sorts of coordination problems and externalities just discussed imply that there is little reason to have confidence in the market naturally resulting in the optimal spatial distribution of economic activity from an efficiency perspective; and even a well-functioning market is never a guarantor of equity.

The role of housing is integral here and cannot be separated from the policy approach to

'levelling up'. To the extent that equality underlies concerns over geographical inequality, it is essential to understand who ends up gaining if a disadvantaged area succeeds – perhaps due to some government policy push – in attracting greater numbers of workers and businesses. This depends on what happens to housing. With an unresponsive housing supply and increasing populations, housing costs will rise due to greater demand to live there coupled with little change in supply. Hence local owner-occupiers and landlords will see the biggest gains.³⁰ The poorest often lose the most, as they are more likely to be renters, who will pay the higher housing costs, and to work in jobs that don't benefit (as much) from agglomeration economies. Indeed, some may find that agglomeration results in them doing agency work, which may well harm their career, as discussed already.

Of course, another group who will be better off overall are those who move into the area to take advantage of the improved opportunities. Indeed, some might argue that the focus of spatial policy should be to encourage as many people as possible to move to areas that are already thriving, rather than to turn around the fortunes of other areas. That approach, more than any other, would be critically dependent on ensuring more flexible housing supply in those areas (particularly in London) if they are not to be an engine of greater inequality – or else they will become even less affordable for those on low incomes. Even then, there are very likely other barriers to mobility that are important to people besides housing costs. People are attached to where they come from and what and who they know. A risk of focusing only on expanding already-thriving areas – apart from the fact that the problem of congestion may at some point become overwhelming – is that some of those people from other areas just get left even further behind.

By now it should be clear that a central issue is how costly it is for people to move across space, whether in a direct financial sense, in terms of time or in terms of people's wellbeing being dependent on living close to their established communities. Another way of trying to ameliorate this constraint is by tackling transport infrastructure, so that, for example, workers can access more jobs from a given location of residence. Hanley and colleagues show that high-speed rail connections foster collaborative innovation in China, and Sotelo finds that roads increase agricultural welfare on average, but that 20% of farmers lose out.³¹ Greater connectivity can thus come with its own trade-offs. Local 'brain drain' can leave behind less-educated and relatively poorer individuals in locations experiencing out-migration.³²

³⁰ Roback, J. (1982), Wages, rents, and the quality of life, *Journal of political Economy*, 90(6), 1257–1278.

³¹ Hanley, D., Li, J. and Wu, M. (2022), High-speed railways and collaborative innovation, *Regional Science and Urban Economics*, 93, 103717; Sotelo, S. (2020), Domestic trade frictions and agriculture, *Journal of Political Economy*, 128(7), 2690–2738.

³² Britton and others (2021), London calling? Higher education, geographical mobility and early-career earnings.

Reduced transport costs can also increasingly cluster high-paying jobs in already high-opportunity locations. Transport infrastructure projects too evidently come with their own potential set of trade-offs. However, they are likely to increase productivity in aggregate. In combination with other policies, they therefore have the potential to make a positive difference.

Conclusion

A key question in the UK is whether agglomeration has become excessive. With its single big metropolis area in the South East and reliance on a few industries, the UK economy is distinctively more concentrated than those of other European countries and the US. Has the UK settled into a 'bad' equilibrium, with greater inequality and lower social mobility, but also lower aggregate productivity, than might result from a lower level of spatial agglomeration? Existing quantitative evidence on the costs and gains from agglomeration in the UK is scarce. This is a very challenging question for research, but one that should be prioritised.

However, from a distributional perspective the broad-brush consequences of the current situation are clearer. At least 2 groups stand out as being clear losers from the status quo. First, high-skilled individuals in low-density locations far from London face a dearth of opportunities, especially if they do not come from a well-off family background. For these individuals, the extreme economic geography of the UK acts as a limit on the power of education as an engine of social mobility: the returns they will or would get from that education are blunted, because relatively few jobs around them would make full use of it. Internal migration is one response, but this comes with downsides, and the upfront costs are particularly likely to be financially prohibitive for those from poorer backgrounds. Second, low-skilled individuals in high-density locations (and especially London) face high living costs and an occupationally segregated labour market. Lots of people in both of these groups are mismatched with their current location, but movement costs, location preferences and potentially negative scale effects (i.e. congestion) mean that just getting people to move is unlikely to be the solution. It is difficult to escape the conclusion that it is important to move opportunities towards more people.

Bibliography

- Aghion, P., Bergeaud, A., Blundell, R.W. and Griffith, R. (2023). Social skills and the individual wage growth of less educated workers. SSRN Scholarly Paper. <https://doi.org/10.2139/ssrn.4578419>.
- Allen, T. and Donaldson, D. (2020). Persistence and path dependence in the spatial economy. Working Paper w28059. National Bureau of Economic Research.
- Bambra, C. (2016). Health divides: where you live can kill you. Policy Press.
- Bell, B., Blundell, J. and Machin, S. (2018). Where is the land of hope and glory? The geography of intergenerational mobility in England and Wales. Discussion Paper CEPDP1591. Centre for Economic Performance, LSE.
- Bell, A., Chetty, R., Jaravel, X. Petkova, N. and Van Reenen, J. (2019). Who becomes an inventor in America? The importance of exposure to innovation. *The Quarterly Journal of Economics*, 134(2), 647–713. <https://doi.org/10.1093/qje/qjy028>.
- Benson, R., Duffy, B., Hesketh, R. and Hewlett, K. (2021). Attitudes to inequalities: The IFS Deaton Review of Inequalities. Institute for Fiscal Studies. <https://ifs.org.uk/inequality/attitudes-to-inequalities>.
- Bergman, P., Chetty, R., DeLuca, S., Hendren, N., Katz, L.F. and Palmer, C. (2019). Creating moves to opportunity: experimental evidence on barriers to neighborhood choice. Working Paper w26164. National Bureau of Economic Research.
- Bessis, H. (2016). Competing with the continent: the role of cities in their national and European economies. Centre for Cities. www.centreforcities.org/reader/competing-with-the-continent/role-cities-national-european-economies.
- Bilal, A. and Rossi-Hansberg, E. (2021). Location as an asset. *Econometrica*, 89(5), 2459–2495.
- Brandily, P., Distefano, M., Donnat, H., Feld, I., Overman, H.G. and Shah, K. (2022). Bridging the gap: what would it take to narrow the UK's productivity disparities? Resolution Foundation.
- Britton, J., Waltmann, B., Xu, X. and van der Erve, L. (2021). London calling? Higher

education, geographical mobility and early-career earnings. Institute for Fiscal Studies.
<https://ifs.org.uk/publications/london-calling-higher-education-geographical-mobility-and-early-career-earnings>.

Bryan, G. and Morten, M. (2019). The aggregate productivity effects of internal migration: evidence from Indonesia. *Journal of Political Economy*, 127(5), 2229–2268.

Brühlhart, M. and Mathys, N.A. (2008). Sectoral agglomeration economies in a panel of European regions. *Regional Science and Urban Economics*, 38(4), 348–362.

Carlino, G. and Kerr, W.R. (2015). Agglomeration and innovation. In Duranton, G., Henderson, J.V. and Strange, W.C. (eds), *Handbook of regional and urban economics*, volume 5 (pp. 349–404). Elsevier Science Direct.

Centre for Cities (2022). Defining cities. www.centreforcities.org/wp-content/uploads/2022/08/2022-PUA-Table.pdf.

Chen, J., Glaeser, E.L. and Wessel, D. (2019). The (non-) effect of opportunity zones on housing prices. Working Paper w26587. National Bureau of Economic Research.

Combes, P.P. and Gobillon, L. (2015). The empirics of agglomeration economies. In Duranton, G., Henderson, J.V. and Strange, W.C. (eds), *Handbook of regional and urban economics*, volume 5 (pp. 247–348). Elsevier Science Direct.

Combes, P.-P., Duranton, G., Gobillon, L., Puga, G. and Roux, S. (2012). The productivity advantages of large cities: distinguishing agglomeration from firm selection. *Econometrica*, 80(6), 2543–2594.

Crews, L.G. (2023). A dynamic spatial knowledge economy. Unpublished paper. www.levicrews.com/files/p-dske_paper.pdf.

Criscuolo, C., Martin, R., Overman, H.G. and Van Reenan, J. (2019). Some causal effects of an industrial policy. *American Economic Review*, 109(1): 48–85.

Dauth, W., Findeisen, S., Moretti, E. and Suedekum, J. (2022). Matching in cities. *Journal of the European Economic Association*, 20(4), 1478–1521.

De La Roca, J. and Puga, D. (2017). Learning by working in big cities. *The Review of Economic Studies*, 84(1), 106–142.

Department for Business and Trade (2024). UK trade in numbers (web version). www.gov.uk/government/statistics/uk-trade-in-numbers/uk-trade-in-numbers-web-version.

- Diamond, R. (2016). The determinants and welfare implications of US workers' diverging location choices by skill: 1980–2000. *American Economic Review*, 106(3), 479–524.
- Diamond, R. and Moretti, E. (2023). Where is standard of living the highest? Local prices and the geography of consumption. Working Paper w29533. National Bureau of Economic Research.
- Drayton, L., Levell, P. and Sturrock, D. (2023). The micro-geography of housing supply in England. Working paper. <https://congress-files.s3.amazonaws.com/2023-07/The%2520Microgeography%2520of%2520Housing%2520Supply%2520in%2520England.pdf>.
- Duranton, G. and Overman, H.G. (2008). Exploring the detailed location patterns of UK manufacturing industries using microgeographic data. *Journal of Regional Science*, 48(1), 213–243.
- Ehrlich, M.V. and Overman, H.G. (2020). Place-based policies and spatial disparities across European cities. *Journal of Economic Perspectives*, 34(3), 128–149.
- Ellison, G., Glaeser, E.L. and Kerr, W.R. (2010). What causes industry agglomeration? Evidence from coagglomeration patterns. *American Economic Review*, 100(3), 1195–1213.
- Gaubert, C., Kline, P.M. and Yagan, D. (2021). Place-based redistribution. Working Paper w28337. National Bureau of Economic Research.
- Glaeser, E.L. and Resseger, M.G. (2010). The complementarity between cities and skills. *Journal of Regional Science*, 50(1), 221–244.
- Gruber, J., Johnson, S. and Moretti, E. (2023). Place-based productivity and costs in science. *Entrepreneurship and Innovation Policy and the Economy*, 2(1), 167–184.
- Guaitoli, G. (2024). Firm localness and labour misallocation. Working paper. Department of Economics, University of Warwick. https://warwick.ac.uk/fac/soc/economics/staff/gguaitoli/guaitoli_gabriele_jmp.pdf.
- Hanley, D., Li, J. and Wu, M. (2022). High-speed railways and collaborative innovation. *Regional Science and Urban Economics*, 93, 103717.
- Helmets, C. and Overman, H.G. (2017). My precious! The location and diffusion of scientific research: evidence from the Synchrotron Diamond Light Source. *The Economic Journal*, 127(604), 2006–2040.
- Hou, S. and Milsom, L. (2021). The butcher, the brewer, or the baker: The role of occupations

in explaining wage inequality. Department of Economics Discussion Paper. Oxford University.

<https://ora.ox.ac.uk/objects/uuid:55dd8c28-ea13-4e9b-8cce-82dfe6ba251f/files/sjd472x31z>.

Hsieh, C.-T. and Moretti, E. (2019). Housing constraints and spatial misallocation. *American Economic Journal: Macroeconomics*, 11(2), 1–39.

Hsieh, C.-T., Hurst, E., Jones, C.I. and Klenow, P.J. (2019). The allocation of talent and U.S. economic growth. *Econometrica*, 87(5), 1439–1474.

Joyce, R., Pope, T. and Roantree, B. (2019). The characteristics and incomes of the top 1%. Briefing Note BN 254. Institute of Fiscal Studies.

Khan, J., Powell, T. and Harwood, A. (2011). Land use in the UK. Office for National Statistics (ONS).

Marshall, A. (1890). *Principles of economics*. Eighth edition. Cosimo Inc.

Martellini, P. (2022). Local labor markets and aggregate productivity. Working paper. Federal Reserve Bank of Minneapolis. https://economics.yale.edu/sites/default/files/martellinip_jmp.pdf.

McCann, P. (2019). Perceptions of regional inequality and the geography of discontent: insights from the UK. *Regional Studies*, 54(2), 256–267.

Michaels, G. and Rauch, F. Resetting the urban network: 117–2012. *The Economic Journal* 128(608), 378–412.

Milsom, L.H. (2024). Doomsday to today: 1000 years of spatial inequality in England. Department of Economics, KU Leuven. <https://feb.kuleuven.be/research/economics/ces/documents/DPS/DPS2024/DPS%202402.pdf>.

Moretti, E. (2021). The effect of high-tech clusters on the productivity of top inventors. *American Economic Review*, 111(10), 3328–3375.

Moretti, E. (2022). Place-based policies and geographical inequalities. The IFS Deaton Review of Inequalities. Institute for Fiscal Studies. <https://ifs.org.uk/inequality/place-based-policies-and-geographical-inequalities>.

Moretti, E. and Yi, M. (2023). Size matters: matching externalities and the advantages of large labor markets. Working Paper 32250. National Bureau of Economic Research.

Morikawa, M. (2011). Economies of density and productivity in service industries: an analysis

- of personal service industries based on establishment-level data. *The Review of Economics and Statistics*, 93(1), 179–192.
- Nakamura, E., Sigurdsson, J. and Steinsson, J. (2022). The gift of moving: Intergenerational consequences of a mobility shock. *The Review of Economic Studies*, 89(3), 1557–1592.
- Neumark, D. and Simpson, H. (2014). Place-based policies. In Duranton, G., Henderson, J.V. and Strange, W.C. (eds), *Handbook of regional and urban economics*, volume 5 (pp. 1197–1287). Elsevier Science Direct.
- North, A. (2023). Private rental market summary statistics in England. ONS. www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/privaterentalmarketsummarystatisticsinengland.
- ONS (2023). Regional economic activity by gross domestic product, UK: 1998 to 2021. Statistical bulletin, 25 April.
- ONS (2024). Explore: which towns attract people with advanced education? www.ons.gov.uk/peoplepopulationandcommunity/educationandchildcare/articles/explore-which-towns-attract-people-with-advanced-education/2024-03-15.
- Overman, H. and Xu, X. (2022). Spatial disparities across labour markets. *The IFS Deaton Review of Spatial Inequalities*. Institute for Fiscal Studies. <https://ifs.org.uk/inequality/spatial-disparities-across-labour-markets>.
- Puga, D. (2010). The magnitude and causes of agglomeration economies. *Journal of Regional Science*, 50(1), 203–219.
- Redding, S.J. and Sturm, D.M. (2008). The costs of remoteness: evidence from German division and reunification. *American Economic Review*, 98(5), 1766–1797.
- Roback, J. (1982). Wages, rents, and the quality of life. *Journal of Political Economy*, 90(6), 1257–1278.
- Serwicka, I. and Swinny, P. (2016). Trading places: the geography of businesses and jobs in Britain. Centre for Cities. www.centreforcities.org/reader/trading-places/geography-businesses-jobs-britain.
- Sotelo, S. (2020). Domestic trade frictions and agriculture. *Journal of Political Economy*, 128(7), 2690–2738.
- Stansbury, A., Turner, E. and Balls, E. (2023). Tackling the UK’s regional economic inequality: binding constraints and avenues for policy intervention. *Contemporary Social Science*, 18(3–4), 318–356.

- Storper, M. and Venables, A.J. (2004). Buzz: face-to-face contact and the urban economy. *Journal of Economic Geography*, 4(4), 351–370.
- Vitali, A. (2022). Consumer search and firm location: theory and evidence from the garment sector in Uganda. Working Paper. Centre for Economic Policy Research.
- World Bank (2022). Trade in services (% of GDP): OECD members, United Kingdom, United States, France, Germany, Italy. <https://data.worldbank.org/indicator/BG.GSR.NFSV.GD.ZS?locations=OE-GB-US-FR-DE-IT>.
- Xu, X. (2023). The changing geography of jobs. Institute for Fiscal Studies.