

# **Left Behind Localities and Levelling Up: Skills and Productivity**

**Skills and Productivity Board**

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**May 2022**

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# Introduction

The previous Secretary of State's Question 3 asked the Skills and Productivity Board: "how can skills and the skills system promote productivity growth in areas of the country that are poorer performing economically?"

There is a huge academic literature on productivity in general and specifically on the links between productivity and skills<sup>1</sup>. Much of this work has a strong geographical dimension. Currently many organisations and groups,<sup>2</sup> as well as individual academics, are engaged in active research programmes in this field. There are several recent "state of the art" reviews<sup>3</sup> and this note does not aim to repeat them. Rather it attempts to extract some important themes that are relevant for the work of the DfE. In doing this it has two aims:

1. Making DfE aware of key issues so it can consider the role skills may play – recognising that many, if not most, of the issues raised lie far outside the Department's direct remit.
2. Examining how skills and skills systems might make an effective contribution to increasing local productivity.

The paper presumes that levelling up initiatives will be tailored to the different needs of different localities, irrespective of the extent to which these initiatives are centrally or locally organised and directed. The note presents a list of items which the DfE might want to keep in mind as it develops its future work programmes.

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<sup>1</sup> Some of this literature is concerned with a general analysis of the links between education or skills and productivity. See, for example, Hanushek and Kimko (2000), Holmes (2013), Islam et al. (2014), Krueger and Lindahl (2001), and Sianesi and Van Reenen (2003). A closely related strand concentrates more exclusively on the returns to education. See, for instance, Barro and Lee (2015), and Card (2001).

<sup>2</sup> These organisations and groups are listed in Annex A.

<sup>3</sup> See, for example, Grimshaw & Miozzo (2021), McCann & Vorley (2020). See also McCann (2018).

# Context and key concepts

## Levels of disaggregation and regional disparities

Locality can be measured at various levels of disaggregation. Driven by better data and by policy initiatives, research has increasingly concentrated less on broad regions and more on smaller geographical entities<sup>4</sup>.

Place-based inequalities are greater in England than in most of its traditional comparator countries. These inequalities have many dimensions, both economic and social. Low productivity is central, leading to low wages and relatively low living standards. The problem is that this can and does become part of a vicious circle of cause and effect from which it is difficult to escape. An area can find itself in a low- income equilibrium reflected in all dimensions of its economic and social fabric. It might well be possible to take measures that attempt to enhance the efficiency with which the economy of that area functions by, for example, improving the match between the supply and demand for skills. However, addressing just one aspect of the area's disadvantage is likely to pay limited dividends. It suffers from a systemic problem for which systemic measures are likely to be needed if it is to escape from its low-income equilibrium.

Income disparities between the broad regions of England (NUTS 1) diminished in the mid-twentieth century but this narrowing reversed in the 1980s and 1990s). Since then, there has been a slight narrowing. But within these broad regions inequality, as measured by productivity differences, has increased (Zymek and Jones, 2020). As McCann (2020) puts it, “unless one defines spatial areas very narrowly, then the issue of intra-area inequalities becomes important”. This, he argues, is particularly significant for the four nations of the UK - “inequalities within the UK are also across such short distances with enormous local productivity variations evident within just a two-hour

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<sup>4</sup> The most commonly used official levels of disaggregation, including by the ONS, are: NUTS 1, 2 and 3 (from largest to smallest). NUTS 1 subdivides the UK into Scotland, Wales, and Northern Ireland and nine broad regions of England. NUTS 2 has 40 subdivisions – in England corresponding to groups of counties and groups of districts in Greater London. NUTS 3 has 174 subdivisions – in England corresponding to counties, unitary authorities, or districts. Recently the ONS has started to replace NUTs (Nomenclature of Territorial Units for Statistics) with International Territorial Levels (ILTs).

driving time, whereas within Spain comparable variations would only be evident across a seven-hour driving time, and in Italy and the United States across a 10-hour driving time”

Zymek and Jones divide NUTS 3 regions (see footnote 4 for description) into four categories: steaming ahead, losing ground, catching up, and falling behind. Of those places that are steaming ahead 25 are cities or “parts of cities”. Eight of them are in the London metropolitan area. Also in this category are Bath, Bristol, Derby and Southampton. However, not all cities have fared so well, and Zymek and Jones cite Cheshire et al. (2014) in emphasising that many cities, including Coventry, Newcastle, Portsmouth, and Wolverhampton, have “been underperforming the national average”.<sup>5</sup> At the same time some “non-city” areas are in the steaming ahead group – for example Cheshire and Hampshire. At the other end of the spectrum, most of the areas classified as falling behind are coastal ones. In presenting this picture Zymek and Jones stress the continuing importance of what they call “regional clubs”. Thus, most of the English steaming ahead places are in the South East, whilst most of the falling behind areas are on the West Coast or in the North of the country. A recent picture at the broader regional level is given by Clark (2019).

McCann (2016) puts the problem of regional disparities in stark terms. “The extent to which the productivity performance of the UK’s prosperous regions has outperformed both EU and OECD averages over the last two decades is almost exactly countered by the extent to which the UK’s weaker regions have under-performed those same averages over the same period. While London and its hinterland are prosperous on almost every indicator, today almost half the UK population live in regions whose productivity levels are no better than the poorer parts of the former East Germany and poorer than the US states of Mississippi and West Virginia. Indeed, given the UK’s geographical scale, the UK interregional contrasts are something akin to US states of Massachusetts and Connecticut being adjacent to Alabama and Mississippi.”<sup>6</sup>

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<sup>5</sup> See Martin et al (2018) for an analysis of the performance of cities across the OECD.

<sup>6</sup> Some systematic international comparisons are given by Floerkemeir et al (2021).

## Taxonomies of success and failure

*Lagging* areas fall into three broad categories: those, like Cornwall, which have been disadvantaged in the very long-term; those which suffered from the secular decline of a dominant sector(s) – parts of the North West, for instance; and those which experienced a major macroeconomic shock from which they failed to recover. The second and third categories often overlap but this is not always the case.

Rice and Venables (2020) consider the third category, examining the impact on local authority districts (LADs) of the large and rapid decline of manufacturing between the mid 1960s and the early 1980s. They find what they call persistence. Two thirds of the LADs with highest deprivation rates in 2015 had experienced these large negative shocks 40 years before. Moreover, they found that “the places that experienced negative shocks were not, on average, drawn from atypical starting points”. In other words, there were initially fairly prosperous areas (parts of the West Midlands, for instance) that shared the pain with areas that were already lagging, and they have been no more likely to recover from the shock. As we contemplate a rapidly, and to an extent unpredictably, changing economy, the message from Rice and Venables is that large shocks can easily destroy healthy ecosystems and that it is difficult (though not impossible) to construct new ones. However, there were exceptions to persistence, and Rice and Venables make particular mention of Corby. Corby was almost entirely dependent on its steel plant. This was shut down in the early 1980s, leading to a local unemployment rate of over 30%. Yet today Corby is thriving, with one reason for this considered below. Unfortunately, there have not been enough Corbys.

Approaching disparities from the other end of the spectrum, researchers have constructed a typology of *successful* localities. Some have benefitted from “place fundamentals”, others from “sorting” and yet others from “agglomeration” – explained in turn below.

Place fundamentals refer to localities that thrive because of geographical location. Historically, this referred to such advantages as proximity to sources of raw materials or natural features that enabled, for instance, the construction of large ports. Although geography might appear less important in this digital age, in fact it is still significant. One, but by no means the only, reason for the successful resurrection of Corby was its geographical location. As Rice and Venables put it, “the town has the advantage of a good location in the East Midlands, close to the geographic centre of England and to

main road and rail routes between London and the north.” Certainly, and notwithstanding the scaling back of HS2, improving transport links (road, rail, and air) remains a central pillar of the Government’s declared strategy.

Sorting describes a sort of virtuous circle whereby successive cohorts of talented and skilful (usually young) people gravitate to places where there are exciting and well-paid employment and career opportunities. And these places have already attracted similar people, helping to establish plentiful leisure and entertainment amenities and attractive living spaces – the classic gentrification process. The presence of a talented pool of labour attracts new businesses, thus bolstering the virtuous circle.

There are two sorts of agglomerations – localisation and urbanisation – that experience external economies of scale. ‘Localisation’ describes localities where groups of firms operate in the same industrial sector, Detroit (cars) and Seattle (aerospace) being oft-cited examples. Firms are spread across different stages of the supply chain and can take advantage of proximity in terms of exchange of information and coordinated planning. Employers benefit from the presence of a large supply of labour suitable for that sector, thereby creating positive externalities for each other. ‘Urbanisation’ describes localities where there are firms in different sectors but where there is a single employer (or a small number of them) that enjoys increasing returns to scale. Other activities spring up around that employer. Some are part of the large employer’s supply chain; others provide services to its workers. Positive externalities are created by the presence of a large labour pool and good physical and services infrastructure.

Later in the paper we shall consider whether these taxonomies of failure and success can provide guidance for local escape strategies. First, we discuss the problems faced by lagging areas in more detail.

# The Problems Faced by Lagging Areas

## Sectoral composition

Productivity varies across broad sectors of the economy and one possible reason why some localities perform poorly is that they specialise in low productivity sectors. Researchers have explored this issue at various levels of geographical disaggregation and generally have found that differences in sectoral mix account for only small proportions of local productivity differences<sup>7</sup>. However, these findings leave open the possibility that finer disaggregation within sectors would tell a different story. Brown et al (2021) investigate this. As they put it, "we...investigate the degree to which sectoral productivity outcomes in Local Enterprise Partnership (LEPs) areas are influenced by the mix of activities versus other place-based effects." They identify more than 700 sub-sectors and use firm-level data from the Inter-Departmental Business Register (IDBR). They decompose the relative productivity performance of each of the 38 LEP areas into that attributable to sub-sectoral composition effects and that attributable to what they call local capacity effects.

For most LEPs local capacity effects are found to be more important than sub-sectoral specialisation, but results vary depending on economic performance in that LEP. In the high performing areas, sub-sectoral specialisation effects tend to dominate. In the middle performers, local capacity assumes greatest relative importance. In the low performers, although local capacity is the more important, specialisation effects are also a significant drag on productivity. Some of their detailed results are reproduced in Annex B.

There are two important caveats. The first is methodological. The authors themselves emphasise that their research is not an exhaustive exploration of the relationship between locality and sectoral disaggregation and that their statistical procedures involve

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<sup>7</sup> For example, Gibbons et al (2013) investigate the spatial dispersion of wages (which can be regarded as a crude proxy for productivity) and find that most of it can be explained by the personal characteristics of workers rather than place-specific effects. By contrast, two other papers report results which could be more consistent with place-specific effects. Rice and Venables (2004) find that productivity dispersion between regions (at the NUTs 3) level are largely accounted for by productivity differences within occupations. Beatty and Fothergill (2019) examine productivity at the city and sub-region level and argue that once corrections are made for industrial and occupational composition, spatial efficiency differences are quite small.



some steps that are prone to errors of omission and/or commission. These include converting firm level turnover data into gross value-added (GVA) estimates and using GVA per employee rather than GVA per employee hour as their measure of productivity. It could also be that the extent of disaggregation means that an individual firm is being tracked in any given locality rather than the structure of a larger sub-sector. The second is a matter of interpretation. The decomposition methodology may lead some readings of the results to ignore the likelihood that there is an interdependence between the structure of industry on the one hand and various place related factors on the other. For example, historical lack of capital for investment in an area may have dictated the structure of production. Or relatively low demand for skill consequent upon the structure of production may influence local capacity via the amount and type of human capital available in a particular area.

As already indicated, other researchers have considered this issue of the impact of industrial composition. Some of them examine productivity directly, others examine wages as a proxy for productivity. The geographical units considered differ, and some of the research examines occupational composition alongside industrial composition. However, the research of Brown et al seems the best starting point for further consideration of compositional effects. The same team have recently produced a second paper that examines “alternative spatial definitions” for the study of local productivity (Nelles, Brown et al, 2021). The key point is that, notwithstanding the research devoted to the local composition of production, it remains a key issue in exploring why some localities are lagging and in contemplating strategies to improve their economic performance. We know that productivity gains in a locality are likely to be dependent on how the sectoral mix changes.

## **The anatomy of lagging regions**

Countless authors have produced a catalogue of possible reasons as to why certain localities are low productivity ones. These include workforce attributes, capital availability, communications, transport and housing infrastructure, geography, and local institutions and governance. This is reflected in the Levelling Up White Paper’s (HM Government, 2022) six “capitals” as drivers of “spatial disparity” - physical capital, human capital, intangible capital, financial capital, social capital, and institutional capital. The lack of clear general conclusions emerging from the research illustrates two simple facts. The first is that there is rarely, if ever, one single problem, which if addressed, will

significantly transform the fortunes of a locality. The second is that the mix of problems faced by a lagging locality is often specific to that locality.<sup>8</sup>

Here we highlight three active areas of research where further investigations would prove fruitful. This is not to suggest that it is the business of the DfE to dive into them but rather to emphasise their importance in thinking about the constraints on and effectiveness of local skills formation, particularly in a policy environment that emphasises local strategies and actions.

### **Narratives that create common purpose**

McCann (2018) emphasises the importance of knowledge diffusion and innovation systems and how comparatively weak they are in the UK. He acknowledges that the reasons for this are poorly understood. One possible culprit is inadequate management. This, he argues, is a particular concern with regard to SMEs. He writes: “there remains an important unresolved question as to whether it is specific management practices which raise productivity or the promotion of improved SME leadership mindsets, networking and ability to access tacit knowledge.” Recent work by Collier and Tuckett (2021) investigates more broadly this issue of mindsets. They use socio-psychological theory to consider “the role of narratives” in “making investment decisions under uncertainty”. Narratives are formed by collective ideas within a networked community and affect decisions within that community, creating externalities or what Collier and Tuckett call “extra-market effects” that impact on investment. Based on “in-depth pilot interview studies”, they compare the narratives prevailing in Wales and the West Midlands. In Wales, they describe the narrative as a “fragmented” one which blames others (inside and outside the Principality) for economic failure, as backward looking, and as one that exhibits “a passive mentality of victimhood”. The business owners and managers they interviewed claimed that they faced pervasive anti-business sentiment particularly in governmental circles. One interviewee claimed that “devolution had made things worse”. By contrast, Collier and Tuckett found that the narrative in the West Midlands was, although fragmented, more forward looking, did not assign blame and exhibited a sense of purpose. The business community saw devolution as an opportunity. They argue that the narrative in the West Midlands gives local leadership an opportunity

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<sup>8</sup> See Mealy and Coyle (2019) for a recent analysis of some of these issues.

to shape it into an agreed strategy for the future. In Wales the narrative inhibits local action particularly since the business community believes that the political leadership is part of that negative narrative.

As Collier and Tuckett put it, “we show the potential for local leadership to use well-constructed narratives to coordinate fragmented agents to cooperate on a common purpose and more generally propose a framework to understand how low-income equilibria become stable but might be re-set.” They base their findings on pilot cases studies of just two areas and further research is following this promising line of inquiry.

### **Investment and decentralised banking**

McCann notes that start-ups and SMEs grow slowly in some regions of the country - the scaling-up problem. In fact, a large proportion of fast growing adaptable new companies – so-called gazelles - are located in the South East. This is another area where more research is needed. McCann himself cites the work of Dodds and Hamilton (2007). They emphasise the importance of “founder-related variables” (motivation, education, skills, experience, imagination, and the like) in simulating fast growth. Important as these clearly are, other factors relating to place are also likely to play a significant role in inhibiting scaling-up. Lack of access to capital has long been mentioned as one of these factors. The Levelling Up White paper recognises this in a number of its proposals – for example in its declared aim to “invest at least 55% of its total domestic R & D funding outside the Greater South East by 2024-25”; in its target of “£100m of investment in three new Innovation Accelerators”; and in its proposals for British Business Bank Regional Investment Funds and for the Global Britain Investment Fund. In recent years researchers have emphasised a structural dimension to this problem – the absence of a decentralised banking system. Mayer et al (2021) argue that decentralisation is characterised by “geographical dispersion of banks with close proximity to their borrowers and strong long-term relationships between banks and their borrowers based on soft, tacit, as well as hard, codified information.” They demonstrate the advantages of local banking in economies as diverse as the US, Germany, and Sweden. In the UK banking is highly centralised and there are “weak relationships between banks and their borrowers”. Their policy conclusion is that the government should promote banking at the regional and local level.

## **Workplace relations – job quality and links to productivity**

A third important research gap noted by McCann is workplace relations broadly defined. There is a great deal of work on job design and job quality. In the UK this has often been connected to campaigns for “fair wages”, a presumption (less soundly based than often thought) being that better job quality necessarily leads to higher productivity. However, there is scope for more investigation of the conditions under which job quality could be improved and the consequences of this for productivity. This is because skill formation is not just about discrete training episodes but also about learning and developing on the job, which in turn could be vitally dependent on the design of that job.

A linked theme concerns the ability of employees to positively influence employer strategy and process. Freeman and Medoff (1984), wrote about the “two faces” of unionism. The first face is where the union simply attempts to put up wages or improve some other aspect of terms and conditions in a sort of zero-sum game with the employer. The second face is where the union expresses the “collective voice” in a non-zero-sum game. The exercise of this voice might convey information (otherwise not fully or only partially available to the employer, and not articulated by individual employees) about grievances, about safety, skill development needs or other aspects of working conditions. Or it might be about suggesting an improvement in a particular work process, or it might convey worries that employees have about future developments. It could well be that, once alerted, the employer can take appropriate actions whose cost is outweighed by the consequent gain to productivity – potentially to the advantage of both sides.

This array of factors, and their roles in affecting productivity positively or negatively, will vary from locality to locality. So, therefore, will the precise nature of the skill/education interventions needed, the ability to act on those needs, and their likely impact on productivity.

# What Does This All Mean for the Role of Skills in Levelling Up Strategies

The government published its national growth strategy last year in *Build Back Better*. This has been followed by the recent publication of the Levelling Up White Paper. It is unclear how the Local Growth Strategies previously prepared by the Mayoral Combined Authorities and LEPs stand in relation to this new national strategy. However, Local Skills Improvement Plans (LSIPs) remain very much on the agenda – with this new policy and several key considerations explored below.

## Local Skills Improvement Plans

As part of the Skills Accelerator, the Government announced eight trailblazer LSIPs where the “endorsing employer representative bodies” are the local chambers of commerce.<sup>9</sup> Employers are meant to work in collaboration with local colleges and other providers of post-16 technical education and training. Strategic Development Fund (SDF) pilots have been running alongside these eight LSIP Trailblazers. The administrative structure is much the same for a further ten areas that are running just SDF pilots.<sup>10</sup> In all ten of these areas the lead colleges named are part of a consortium of mainly local FE colleges. In three of them one or more local universities are also involved.

DfE documents describe the Trailblazer Initiative as trialling a new system that would make LSIPs “a new part of a local skills infrastructure that will give employers, through local employer representative bodies, a clear and strengthened role in local skills planning”. The plans are intended to look ahead for three years, then reviewed and updated regularly.

The Department describes the SDF as designed to “begin building the local collaborations that will create a stronger and more efficient overall delivery infrastructure and support a more co-ordinated offer across the local area”. The Department continues

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<sup>9</sup> They cover the following areas: West of England; Cumbria; South Yorkshire; Leicestershire; Kent; Tees Valley; Lancashire; and Sussex.

<sup>10</sup> They are: Cheshire South and West; Derby College; Fareham College; Halesowen College; Milton Keynes College; Tech Partnership Grimsby; Telford College; Truro and Penwith College; Warwickshire Colleges Group; West Nottinghamshire College.

“They will also support the development of a high-value curriculum offer in support of longer-term skills priorities” in a local area and “strengthen the relationship with employers”.

It is intended that the draft Trailblazer LSIPs will be delivered by the end of March 2022. It will be important for the Department to rigorously assess these drafts before taking further steps. This is where the taxonomic analysis outlined in this paper could prove useful.

### **What should DfE look for in LSIPs?**

The main aim of the Trailblazers appears to be to match supply and demand for skills in the present and in the near future. The arrangements are basically inviting employers to determine what skills they need/will need and to transmit their requirements to local skills providers. Below are some of the key conditions to ensure LSIPs support better matching.

- Does the relevant employer representative body<sup>11</sup> adequately represent the full range of employer interests in the locality? This has been a concern about some of the Local Skills Reports drawn up by the Skills Advisory Panels.
- Have they employed a labour market information system that adequately assembles data from individual employers and is fully representative of those employers?
- But do individual employers have this data? Too often, they do not (McKinsey, 2020). As McKinsey suggests, company/organisation skills audits are often primitive to non-existent. Without such audits even short-run skills planning is compromised. As for the longer term, skills planning seems to be the exception rather than the rule.
- A careful analysis of identified skill shortages and skills gaps. By a skill shortage we mean a failure to recruit people with the right skills. This may reflect a general shortage of these skills in the locality, or it might reflect other difficulties or inadequacies in the recruitment process, not least a failure to offer adequate pay.

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<sup>11</sup> Chambers of Commerce led the development of trailblazer LSIPs but this will widen to include other representative bodies in future

If it is the former, then that is a signal to either attempt to increase supply from local providers or to widen the geographical area of recruitment. The concern is that even if the latter is the appropriate diagnosis, there may be a knee-jerk response amongst local providers to increase supply. It could be just as difficult to construct suitable responses to identified skills gaps. There is a tendency for some employers to expect their workers to be “oven-ready” in all respects. Yet, many of the deficiencies they identify in surveys relate to soft or non-cognitive skills that could be enhanced within their organisation rather than through the intervention of an external provider.

- Do local providers have the capacity to deliver what is needed? If this involves significant changes in the current offer of FE colleges, then this could present major difficulties. This is not just a matter of financial resource but also of personnel. If, for example, employers identified a need for more training provision in a particular engineering skill, how easily and quickly could adequately qualified trainers be found? Or, if employer need suggested that some current areas of FE provision were no longer required or should be scaled back, how many FE staff redundancies would this involve and what would be the cost? Very importantly, to what extent will local universities be included in skills planning exercises? The Skills Bill would place a duty on HE institutions to have regard to LSIPs (in the same way it does for FE providers), and reaction of many parts of the HE sector to the Levelling Up White paper bears testimony to an anxiety to have a role.
- Who is going to pay? Serious consideration needs to be given to cost sharing, particularly after years of declining work-based training. Employers should play their part, not only by putting their money where their mouths are but in ensuring that their workplaces are designed in such a way as to foster skills development. Historically we have seen employers showing reluctance to pay for training and to become over-reliant on government subsidy. Both cause and effect of this has been the demise of training departments in many organisations and correspondingly a reliance on external providers.

If plans are consistent with these (demanding) conditions, then we will see better matching of demand and supply. The critical question is by how much this will improve local productivity. If the locality contains large numbers of low productivity employers or, at the extreme, is in a low skill/low income equilibrium, the answer is that productivity gains will be limited.

## **Skills planning in relation to wider local growth strategies**

The relatively short time horizons embedded in the LSIP Trailblazers may suit skills matching but be less suited to local growth strategies. On the one hand, it makes sense to concentrate on the near term, given the difficulty of forecasting skills supply and demand in the longer term. On the other hand, reliance on short term matching will not be enough to achieve the sort of transformations needed in the severely lagging areas of the country. This requires a longer-term strategy for each locality. The demand for skill is a derived demand and it is only when we know what priorities the strategy produces that we can make sensible judgements about that demand and therefore the appropriate supply response. Hopefully local growth strategies, in whatever form they finally emerge, will provide the requisite information about these aspirations and priorities.

There are two key, immediate issues for the DfE in relation to local growth strategies:

The first is the extent it needs to/should get involved in making judgements about the viability of any given local growth strategy. To an extent, it would seem difficult not to, if it is to make sensible recommendations about how long-term skills planning fits into the picture. At the very least the DfE needs to understand that strategy.

The second concerns the interplay between local and national action. For example, it may be that a particular locality envisages developing activity in financial services with an associated increase in the demand for accountants and other financial specialists. It is far from clear that increasing the supply of people in these professions should be thought of as a task solely for local education providers. Indeed, the array of local plans and strategies are likely to yield commonalities in terms of required skills. That then becomes an issue of national, as much as of local provision. Our HE establishments need to be national providers and not just local ones. London Economics (2020) discusses Oxford University's contribution to the economy at both the national and more local level. Of course, the relative importance of the national and local will vary across the sector but this example illustrates a vital general point. Even if localities are given considerable local autonomy in their decision making, national government needs to retain an essential coordinating and monitoring role in order to ensure that the totality of micro decisions makes sense in the aggregate.



## Using taxonomies to understand local problems and solutions

If the locality is a low productivity one, the bottom line is that in the medium to long term we need to consider why, and this is where our taxonomy becomes relevant. There is a limit as to what can be achieved in a two or three year period and, without significant change in many dimensions of the local economy, progress will be limited. Local strategies need to consider precisely what problems need to be tackled and the priorities for action and intervention. Only then does skills policy come fully into play.

Three narratives have been outlined – place fundamentals, sorting and agglomeration. As Zymek and Jones put it: “Does the strategy clearly articulate a particular local problem, or set of problems, it seeks to address? Which of the three narratives ... could explain the problem, or set of problems, identified in the strategy? If the ‘sorting’ narrative is relevant to a proposed intervention, the mobility patterns of workers, in addition to ‘place’ characteristics, become an important consideration. For example, if a local growth strategy proposes training initiatives to fill skills gaps in the workforce, does it also consider how to retain these workers locally once trained? Does the local initiative replicate similar initiatives elsewhere? If so, might it be better to attract workers with the right skills from elsewhere, rather than to ‘home grow’ these skills?” The problem, however, might well be being able to attract skilled workers in the absence of existing agglomeration benefits.

Zymek and Jones go on: “The appropriate evidence base for the ‘agglomeration’ narrative is the trickiest to determine. However, new analytical approaches may make it feasible to provide more objective and compelling evidence of opportunities for strategic investment and expansion at the local level. One of these approaches is ‘economic complexity analysis’. Economic complexity analysis identifies local economic opportunities by spotting high-value economic activities which require similar capabilities as those already in place in a region, but which are currently not a (major) part of a region’s portfolio of productive activities.” Recent work by Bloom et al sheds further light on this line of thought. Using American data, they identify 29 disruptive technologies. Development of these technologies was highly geographically concentrated and led initially to an increase in the demand for highly skilled labour. Over time the jobs produced by these technologies spread across localities, but the average skill required fell, with the highly skilled positions remaining where the initial developments occurred. It would be useful to investigate whether similar patterns are visible in England.

If place is the dominant narrative, then local plans need to consider how best to finesse historical geographic disadvantage. For example, if a locality has been surviving largely on tourism, then it may be unlikely that a strategy which remains reliant on this sector will achieve much in productivity terms. Finding new high-value activities will be challenging. However, some of these areas could benefit from IT developments and the digital age. If blended home and office working does indeed become an extensive phenomenon, then the link between place and productivity could be weakened. High skilled workers may be willing to live in places beyond the commuting distances they were willing to accept pre-COVID, some of the declining coastal towns being obvious candidates. Notwithstanding some loss of activity in their centres, already prosperous urban economies would continue to thrive, but people employed there would take some of their purchasing power elsewhere with obvious benefit to those places.

Whatever the underlying growth strategy, the essential prerequisite for skills to make an optimal contribution to the success of that strategy is an adequate local skills information system. This involves not only assessing demand. It also involves assessing the current *stock* of skills before sensible decisions can be taken about increasing that stock. It may be, for instance that the skills of some workers are being under-utilised. Indeed, Cedefop (2022) has found evidence of considerable such under-utilisation - significantly greater in the UK than the EU average. Furthermore, knowledge about the existing stock of skills is particularly important when individuals are likely to experience rapid change in the composition and content of available jobs. There are likely to be many people being forced out of one occupation who have sufficient transferable skills to enter an alternative occupation with relatively little training.

So, it is clear is that local skills planning will make full sense only when a locality has developed a clear growth strategy. However, there are some education and skills initiatives that may prove valuable independently of any such strategy.

## Possible Initiatives for Further Investigation

As the Levelling Up White Paper recognises, there are some features of the training and education infrastructure (broadly defined) where a lagging area may be deficient, but which, if addressed, could provide benefit irrespective of the precise nature of the intermediating factors between skills and productivity in that locality. This could contribute to the levelling up agenda – certainly for individuals but not necessarily for any given locality.

There appear to be significant spatial differences of early years provision but there is sparse research exploring this phenomenon (Social Mobility Commission, 2017; Abreu, 2018; The Sutton Trust, 2021). Areas for investigation would include the number of children in pre-school and supply issues surrounding early years staff. There is a huge literature, originating from several disciplines, demonstrating the lasting value of early childhood education in terms of the development of cognitive and non-cognitive skills and the enduring effect of this on subsequent labour market performance (see Ansari, 2018 and Hanushek, 2014). Though the pay-off would be many years in the future, improvements here would clearly equip individuals to cope better in a turbulent labour market. However, these individuals might be more inclined to leave their local area for more economically vibrant parts of the country.

There are large spatial differences in educational outcomes, whether we consider primary or secondary education. There are many factors responsible for this, not least parental background. However, work in the US (Hanushek and Woessmann, 2011) has demonstrated that teacher quality has a significant impact on outcomes. Given known patterns of teacher mobility, there is room for more policy-orientated work on how to ensure teacher quantity and quality in some of the more deprived areas.

Many commentators have bewailed the general inadequacy of careers advice to secondary school students and adults (see, for example, Careers England, 2019). There is scope for research on the extent to which it varies by locality and on what can be done to improve it. This is particularly important for two reasons. The first is that we are at a time when national policy is aiming to strengthen the vocational offering at school and to offer a real choice between an academic route, usually leading to university, and an apprenticeship route that might or might not lead into tertiary education and the academic route. If this initiative is to be successful, informed choice is essential. The second

relates to adults who face a rapidly changing labour market where detailed advice on the transferability of their skills will be vital. It is encouraging that Sir John Holman is currently leading an independent review on careers guidance and will make long-term recommendations for the careers guidance infrastructure in the summer of this year. Part of his work addresses greater alignment between local and national careers, employment and skills initiatives.

Improvements in areas such as these would help the levelling up agenda in that they would enhance the labour market prospects of individuals. The extent of that individual enhancement, as well as the impact on local productivity, would depend on the structure of local production and the associated demand for skills. Some beneficiaries of the initiatives outlined above would be matched to better jobs than they might otherwise have obtained. Others might not be able to find suitable jobs, depending on the extent and structure of the demand for skill. At least, however, they would be better equipped to find suitable work outside their locality. Thus these levelling up measures would benefit individuals but the extent to which they improved the productivity of any particular locality would depend on the complex of factors describes earlier.

## Concluding comments

Levelling up requires an improvement in the productivity of poorer areas of the country. Only with higher productivity are we likely to see higher real wages. The contribution of skills and skills systems will vary from locality to locality.

The immediate priority is to achieve better matching between the demand and supply of skills. However, this will make only a modest contribution to levelling up in an area where the demand is for relatively low-level skills; the quality of production and of jobs will need to be improved. To make a greater impact, skills plans need to be part of a larger planning exercise, as is presumably the intention behind running SDF pilots alongside some of the LSIP Trailblazers. Success of such locally based strategies will depend, to an extent, on obtaining better local labour market information. In part, the responsibility for providing this information rests with employers.

Notwithstanding this need to incorporate skills and education within a wider set of initiatives, there are some specific actions that could certainly improve the prospects of individuals in lagging areas; the extent to which they would also enhance that area's productivity would depend, *inter alia*, on the subsequent mobility of the individuals concerned (see Advani, Cornish and Crawford, 2022).

Finally, we return to the issue of devolution of strategy and action. The precise interplay between the centre and the localities is and will remain a matter of vital concern (see Keep, 2022). Precisely what discretion should be given to the localities, and how large will be the accompanying funding? And what exactly should be the local decision-making unit? The devolved Adult Education Budget suggests Combined Authorities, though currently this leaves some areas of the country uncovered. The intention is for LSIPs to mirror geographical boundaries of existing Combined Authorities – or Local Enterprise geographies where there is no Combined Authority. Alongside this comes the question of who the local decision makers should be – elected politicians (as in the Combined Authorities) or unelected groups (such as chambers of commerce in the LSIP Trailblazers). What is clear is that the local unit needs to be smaller than the traditional standard regions. The question is how much smaller. The Levelling Up White Paper promises “deeper devolution” and in the process suggests a central role for Mayoral Combined Authorities but many uncertainties remain.

## Annex A: Research on skills and productivity

Among organisations, networks and programmes working on skills and productivity are the following. Nearly all have a regional dimension.

The Industrial Strategy Council, sponsored by BEIS, was established in 2020 and wound up in 2021. It was composed of “leading men and women from business, academia and civil society” and aimed “to provide an expert impartial view of the impact of the Government’s Industrial Strategy”.

The Productivity Institute is funded by ESRC and run from the Alliance Manchester Business School. It “brings together world-leading experts from a range of disciplines and backgrounds, working directly with policymakers and businesses to better understand, measure, and enable improvements in productivity across the whole of the UK.” Apart from an active research programme, it runs five Regional Productivity Forums in England. The Productivity Institute, together with the National Institute of Social and Economic Research (NIESR), has established the Productivity Commission, run from NIESR.

This is but one of several ESRC investments in this area. They include:

- The Productivity Insights Network (PIN) was established in 2018. It is run from Sheffield University and has collaborators in range of other universities. PIN is described as “a network comprising researchers, business leaders and policy makers to generate and benefit from the latest research on improving productivity.” Again, it has an active programme of research and publication.
- The Programme on Innovation and Diffusion (POID), run from the London School of Economics.
- Five research grants at Aston, Strathclyde, Sheffield, East Anglia and NIESR. All started in February 2019. Some have finished, others are due to be completed in early 2022.
- NESTA. Their emphasis is on innovation. See their publication, using Burning Glass data, *Making Sense of Skills: a UK Skills Taxonomy*.
- What Works Centre for Local Economic Growth. This is part of the What Works Network. It is run by LSE and the Centre for Cities. It is funded by the ESRC, BEIS, the Department for Levelling Up, Housing and Communities, and the Department for Transport.

- National Numeracy. A registered charity whose three-year strategy is “to support people with low confidence or competence with numbers, where the need is greatest. We will reach and engage adults with low numeracy, break down confidence barriers and empower them to improve across three themes: in order to help with work, supporting children and managing money. In turn, this will help unlock crucial next steps into training, education and skills-building.”
- The Skills Commission – Policy Connect. Numerous publications.
- Centre for Cities. See above on What Works Centre for Local Economic Growth. The Centre has a variety of projects on levelling up.
- Levelling Up Taskforce. Jointly established by the Prime Minister and the Secretary of State for Levelling Up. Chaired by Andy Haldane.
- Centre for Regional Economic and Social Research, Sheffield Hallam University. Its funding is from a variety of private and public sector sources, including the research councils.
- Social Mobility Commission. A non-departmental public body sponsored by the Cabinet Office. A new Chair (Katharine Birbalsingh) has recently been appointed.

## Annex B: Results of Brown et al.

The two tables are reproduced from Brown et al.

**Table 1: Relative importance of specialisation vs. local capacity effects in explaining deviations in productivity performance from the national average in LEP areas, by sector**

Sector	Sub-sectoral productivity deviation (rank, of 32 sectors)	Spatial productivity deviation (rank, of 32 sectors)	LEP areas where specialisation effects predominate	LEP areas where productivity effects predominate	Specialisation-local capacity ratio
Agriculture, mining, electricity, gas, water and waste	3	4	24	14	1.93
Manufacture of food, beverages, textiles and clothing	12	21	19	19	0.98
Manufacture of wood, petroleum, chemicals and minerals	5	5	23	15	1.42
Manufacture of metals, electrical products and machinery	16	23	27	11	1.43
Other manufacturing, repair and installation	26	27	16	22	0.78
Construction of buildings	31	28	1	37	0.10
Civil engineering	32	12	6	32	0.34
Specialised construction activities	29	25	3	35	0.09
Motor trades	7	6	5	33	0.18
Wholesale trade	1	1	5	33	0.15
Retail trade	17	30	3	35	0.24
Land, water and air transport	6	15	16	22	0.78
Warehousing, transport support, postal and courier activities	19	22	16	22	0.81



Accommodation and food service activities	27	29	5	33	0.34
Information and communication	13	20	2	36	0.20
Financial and insurance activities	2	2	9	29	0.41
Real estate activities, excluding imputed rental	22	17	0	38	0.12
Legal and accounting activities	24	14	1	37	0.15
Head offices and management consultancy	20	11	1	37	0.08
Architectural and engineering activities	23	18	4	34	0.17
Other professional, scientific and technical activities	8	8	5	33	0.32
Rental and leasing activities	9	3	5	33	0.32
Employment activities; tourism and security services	10	16	6	32	0.20
Services to buildings and landscape activities	11	19	21	17	1.26
Office administration and business support activities	25	9	3	35	0.23
Public administration and defence	21	10	10	28	0.33
Education	18	24	15	23	0.59
Human health and residential care activities	28	32	12	26	0.52
Social work activities	30	31	2	36	0.26
Arts, entertainment and recreation	4	7	18	20	1.17
Membership organisations; repair of household goods	14	13	6	32	0.36

Other personal service activities	15	26	12	26	0.44
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Source: Office for National Statistics (IDBR), Cambridge Econometrics. Note: standard deviations weighted by employment share. Ratio calculated as the absolute difference between average specialisation effect and local capacity effect across 38 LEP areas. Sector definitions as defined by ONS in Regional Accounts.

**Table 2: Relative importance of specialisation vs. local capacity effects in explaining overall deviations in productivity performance from the national average in LEP areas (sorted by most to least productive LEP area)**

LEP area	Productivity (relative to England average)	Specialisation-local capacity ratio
London	207%	1.04
Thames Valley Berkshire	123%	0.63
Enterprise M3	107%	0.88
Hertfordshire	99%	0.84
South East Midlands	98%	5.71
Coventry and Warwickshire	90%	1.13
Cheshire and Warrington	88%	0.64
Buckinghamshire Thames Valley	83%	0.46
Solent	81%	0.38
Dorset	81%	0.86
Coast to Capital	80%	0.37
Tees Valley	80%	1.45
Swindon and Wiltshire	79%	0.09
West of England	74%	0.06
Greater Birmingham and Solihull	73%	0.09
Sheffield City Region	72%	0.38
Greater Manchester	70%	0.04
New Anglia	68%	0.06
Humber	68%	0.21
Greater Cambridge and Greater Peterborough	68%	0.25
Leeds City Region	67%	0.15
Stoke-on-Trent and Staffordshire	66%	0.03
Leicester and Leicestershire	66%	0.13
South East	66%	0.21
Oxfordshire	66%	0.67

LEP area	Productivity (relative to England average)	Specialisation-local capacity ratio
Gloucestershire	65%	0.54
Liverpool City Region	64%	0.47
Derby, Derbyshire, Nottingham and Nottinghamshire	63%	0.28
York, North Yorkshire and East Riding	62%	0.23
Worcestershire	61%	0.55
Black Country	59%	0.63
The Marches	58%	0.26
Lancashire	58%	0.30
North East	58%	0.38
Greater Lincolnshire	56%	0.23
Cumbria	54%	1.10
Heart of the South West	50%	0.35
Cornwall and Isles of Scilly	43%	0.54

Source: Office for National Statistics (IDBR), Cambridge Econometrics. Note: ratio calculated as the absolute difference between average specialisation effect and average place-based effects across 38 LEP areas. LEP area definitions exclude overlap.

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