

# Rurality, Productivity and Skills in the East Midlands

## An executive summary report for *emda*

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August 2010

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# **RURALITY, PRODUCTIVITY AND SKILLS IN THE EAST MIDLANDS**

## **Summary Report**

**August 2010**

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# 1. Introduction

## Aims and Objectives

- 1.1 This summary report sets out the findings of research into the relationship between rurality, skills and productivity in the East Midlands. The report has been prepared by the Enterprise Research and Development Unit (ERDU) at the University of Lincoln on behalf of the East Midlands Development Agency (*emda*). The full report, which includes the detailed data analysis that underpins the findings set out in this summary is available separately.
- 1.2 The aim of this study is to develop a better understanding of the relationship between rurality, skills and productivity in the East Midlands. Through this report, *emda* is seeking to explore the linkages between skills and productivity in rural areas, and to identify whether there are factors associated with rurality or remoteness that inhibit the development of skills and productivity, or exacerbate the negative impacts of low skills on productivity. Previous studies<sup>1</sup> in the East Midlands have indicated a gap in the understanding of the relationship between skills, productivity and rurality in the East Midlands, and point to the need for additional research.
- 1.3 The key aims of the project are:
  - To explore and provide an understanding of the relationship between rurality, low skills and productivity;
  - To test the relationship between rurality, low skills and productivity and, specifically, the effect of rurality and remoteness on skills and productivity;
  - To identify the specific factors that may be associated with, or inhibit, skills and productivity in rural and/or remote areas; and
  - To provide a sub-regional analysis of these factors that enables rural and/or remote areas that are particularly disadvantaged by low skills and low productivity to be identified.

## Key Concepts and Definitions

- 1.4 **Productivity** refers to the rate at which the economy adds value and the how effectively the economy uses the resources it has available. Productivity is important because it is a key driver of economic growth and, therefore, economic wellbeing and sustainability.
- 1.5 Traditionally, income is a function of land, labour and capital and qualitative as well as quantitative changes in these factor inputs affect output, i.e. GDP measures. When considering the skills relationship with productivity, we therefore concern ourselves with wider factor input effects on GDP. In addition to these factor inputs, there are 'other' effects on productivity. Total factor productivity includes variables which are not direct inputs, but which can have an effect on output. These include factors such as improvements in technologies or infrastructure. In rural areas, total factor productivity variables may include spatial effects such as agglomeration and connectivity. These may provide 'externalities' that improve productivity, or may qualitatively improve the productivity of factor inputs.
- 1.6 **Skills**, the ability of people to undertake specific tasks, are identified by the Treasury<sup>2</sup> as one of five key drivers of productivity which also include investment, innovation, enterprise, and competition. Skills are also a dimension, or indicator, of *human capital*. As indicated by Gary Becker<sup>3</sup>, there are positive relationships between wealth and prosperity and overall levels of human capital, as measured by multiple indicators (normally education attainment).

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<sup>1</sup> Atherton, A., and Price, L. (2009) *Secondary Centres of Economic Activity in the East Midlands* undertaken by the Enterprise Research and Development Unit on behalf of *emda*

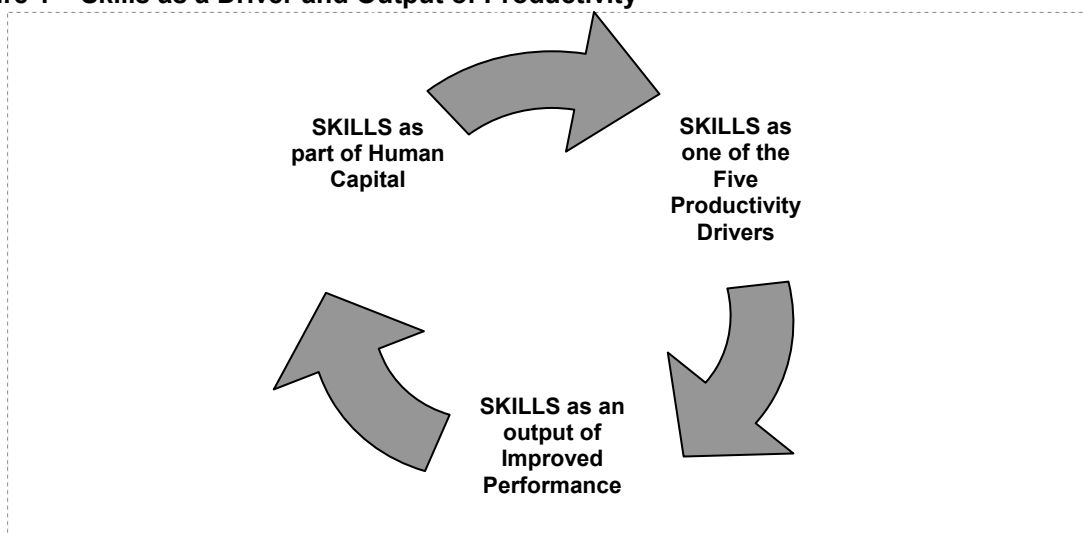
<sup>1</sup> Gambin L, Green A, and Hogarth, T, (2009) *Exploring the Links between Skills and Productivity* undertaken by the Warwick Institute for Employment Research on behalf of *emda*

<sup>2</sup> HM Treasury (2000) *Productivity in the UK: the Evidence and the Government's Approach*

<sup>3</sup> Becker, G (1993) *Human Capital: A Theoretical and Empirical Analysis*, 3<sup>rd</sup> edition, University of Chicago Press

- 1.7 The multiple role of skills within the skills-productivity relationship is conceptualised in figure 1. Skills are identified as one of the five direct drivers of productivity, in that increasing skills within the workforce improves efficiency and increases capacity. Skills are also an indirect driver of productivity as they affect other direct drivers; a skilled workforce is more likely to innovate and adopt new business practices, for example. Skills are identified as an output of improved performance, as firm growth can lead to increasing division or specialisation of tasks and therefore increase demand for skills. Skills can also be identified as a dimension of human capital. Localities with high level skills are associated with higher levels of economic well being, community capacity, and a greater propensity for new business creation.

**Figure 1 – Skills as a Driver and Output of Productivity**



- 1.8 **Rurality** tends to be defined in terms of sparsity of population and size of settlement. Two typologies have been developed to classify rural and urban areas. These have been developed by DEFRA and the Office of National Statistics (ONS). The DEFRA rural and urban definitions (2004)<sup>4</sup> have been developed using analysis of population density and proximity to other nearby settlements. They provide a number of urban-rural classifications for various small geographies – including output area, super output area and ward. The DEFRA classification system takes into account settlement size, and the density and distribution of these settlements. The ONS classification system has been developed to classify areas at local authority district level, and is based on the proportion of people within each local authority district that live in each type of settlement – whether large urban or small rural settlements.
- 1.9 Another dimension of rurality is *connectivity*; the extent to which localities are remote from, or proximate to, large urban centres and transport infrastructure. Many areas that are defined as rural by settlement size and sparsity are not necessarily remote from large urban centres. This is an aspect of rurality which we seek to examine in this study.

### **Determinants of Rural Productivity – Findings from the Literature**

- 1.10 Table 1 sets out the findings from our review of the literature. This sets out the key characteristics of rural areas related to the five key drivers of productivity: enterprise, innovation, investment, competition and skills. We have also added community capacity to reflect the institutional support available to firms and workers, and the effective management of firms. Infrastructure and connectivity are identified through a number of studies as relatively more important for rural areas, and so have also been included as a productivity driver.

<sup>4</sup> DEFRA (2004) *Rural and Urban Classification*, available from DEFRA website : <http://www.defra.gov.uk/evidence/statistics/rural/rural-definition.htm>

**Table 1 - Determinants of Productivity in Rural Areas – Summary**

Enterprise	<ul style="list-style-type: none"> <li>▪ Independent</li> <li>▪ Locally owned and managed</li> <li>▪ Smaller than urban firms</li> <li>▪ High rates of self-employment</li> <li>▪ Increasing in-migrant role in starting businesses</li> <li>▪ Longer established than urban firms</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>▪ Generally less innovative than urban firms</li> <li>▪ Evidence of increased innovation among the most remote rural firms</li> <li>▪ Access to HE, FE and training providers important for innovation</li> <li>▪ Labour intensive production discourages technological innovation</li> <li>▪ Web access a key determinant of rural innovation</li> <li>▪ Increasing agricultural restructuring and diversification</li> </ul>
Competition	<ul style="list-style-type: none"> <li>▪ A weak competitive environment</li> <li>▪ Remote rural firms more likely to develop international/national markets</li> <li>▪ Competitive environment traded for 'quality of life' – suppresses performance</li> <li>▪ EU subsidies and supermarket supply chains constrain local competitive environment in agriculture</li> <li>▪ Self-employed/independently owned firms are less efficient than multinationals</li> </ul>
Investment	<ul style="list-style-type: none"> <li>▪ The most rural areas have the least capital investment</li> <li>▪ Lack of R&amp;D, capital and infrastructure investment limits skills effect on productivity</li> <li>▪ There is limited policy leverage on investment compared to skills</li> </ul>
Community Capacity	<ul style="list-style-type: none"> <li>▪ Rural businesses struggle to access government services and training</li> <li>▪ Rural firms do not work effectively in partnership to overcome these obstacles</li> <li>▪ The ability of firms to introduce changes is key to improving productivity</li> <li>▪ The institutional make up of the community is important in driving rural development</li> <li>▪ Local leadership is key to rural development</li> <li>▪ Aspirations/attitudes are important: whether development is a threat or opportunity</li> </ul>
Infrastructure/Connectivity	<ul style="list-style-type: none"> <li>▪ Limited affordable housing</li> <li>▪ Slow diffusion of broadband infrastructure in most remote areas</li> <li>▪ Remoteness appears to affect productivity more than rurality</li> <li>▪ Journey time affects productivity more than distance</li> <li>▪ Rural areas close to cities are more productive than remote rural areas</li> <li>▪ Rural skills shortages can be attributed partly to location and poor transport</li> <li>▪ There is less commuting in sparse/remote rural areas</li> </ul>
Skills	<ul style="list-style-type: none"> <li>▪ A net out-migration of younger age groups affects skills in rural areas</li> <li>▪ Rural areas have an ageing population, which may affect skills</li> <li>▪ Skills are affected by limited availability of HE, FE and training provision</li> <li>▪ Small rural businesses attach less importance to training</li> <li>▪ The most remote rural areas have seen the largest rise in non-UK migrants</li> <li>▪ Higher level skills (level 4+) have the greatest effect on productivity</li> <li>▪ Policies related to skills development and deployment, innovation and leadership need to be bundled together to ensure firms benefit from technological change and training</li> </ul>

## 2. Research Approach

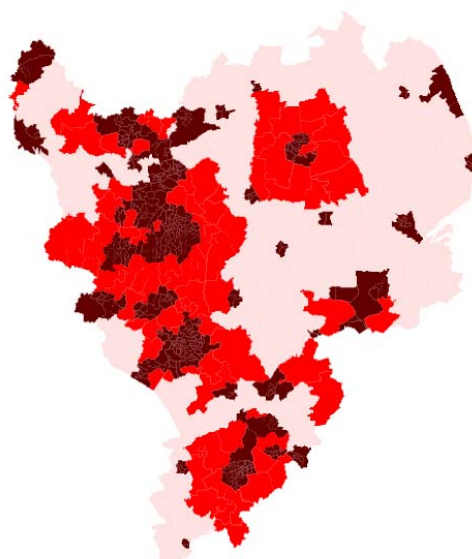
- 2.1 The research was conducted using secondary data sources, and the initial stage of research involved an appraisal of sources to determine the most appropriate variables to include in the study. A number of criteria were used, including geographical level of availability, date of publication, reliability at small geographical levels, and the extent to which they provide a valid measure of (i) rurality, (ii) skills, and (iii) productivity. The sources used were not, however, limited to these three areas and incorporated those recognised through the literature to be drivers of skills and productivity.

**Skills:** Data on NVQ levels from the Census and employer skill requirements from the NESS were gathered as the principal proxies for skills within the resident population and workplace. Within these sources, the proportion of the population with no qualifications, level 2 qualifications (appropriate for entry level to many jobs), and level 4/5 (higher level/professional) were identified as the most relevant. However, other skills levels were also analysed where appropriate.

**Productivity :** We included measures of both the productivity of firms in rural areas, and the income generated by residents living in rural areas. For residence-based productivity, we identified average weekly household income at MSOA level, and gross pay at LAD level. For firm based productivity, turnover per employee from the Inter-Departmental Business Register (IDBR) was sourced from the ONS Regional Team.. This data was made available at MSOA level. Data on turnover per employee was also sourced at LAD level.

**Rurality:** To explore the skills-productivity relationship in rural and, in particular, remote rural areas we needed a clear methodology for identifying whether areas were rural and well connected or rural and remote. We used the DEFRA and ONS rural-urban classifications in our analysis and, to understand which rural areas are also remote, we also included a measure of connectivity. This measured the distance to large urban centres of more than 100,000 within and immediately beyond the East Midlands boundary. Areas that have been identified as 'village, hamlet and isolated dwelling' and 'town and fringe' in the DEFRA classification were merged to create 'rural'. The 'rural' areas were sub-divided into those that are within 20km of a large city, or beyond 20km. The Urban >10k population has been retained as urban. Map 1 sets out the rural remoteness indicator. 'Remote rural' areas are shown in pale pink, 'accessible rural' in red, and 'urban' in dark red.

**Map 1 – Urban, Accessible Rural and Remote Rural Areas**



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## A Wider View of Productivity

2.2 Measures of other factor inputs were also included in the analysis. These include those identified through the literature review, and those likely to have an influence on productivity in rural areas. Data on competition and investment are difficult to obtain for small geographical levels. We have not included data on competition. Connectivity and transport infrastructure provides some indication of the level of government investment, but we have been unable to obtain information on private investment. The drivers that we have sought to measure are set out below.

**Enterprise:** including firm density and business age, derived from the IDBR, and business births, measured by VAT registration/deregistrations. The industrial sector of firms, whether in high value or traditional industries, has also been sourced from the IDBR.

**Employment:** the extent to which people in the local area are available to work can be identified by the economic activity rate. The occupational structure of employment is also explored. This provides another proxy for skills, but also the extent to which workers are working in 'specialised' or 'general' occupations.

**Innovation:** The report produced by Benneworth (2003) for DEFRA suggests that employment in knowledge-intensive businesses and R&D activity are indicators of progress towards high productivity in rural areas. This data was not available at MSOA or LA level. Broadband demand was used as a proxy to indicate the propensity to adopt new technology in remote rural areas.

**Connectivity and Commuting:** explored through the 'distance to nearest city' and 'weighted distance' indicators. We have also analysed the area taken up by road and rail in each MSOA. Commuting data at LAD level has been used to explore the mobility of the workforce, and the extent to which employers source their workforce from local or sub-regional labour markets. Broadband coverage from Point Topic is included as an enabler of online transactions, cost savings, and e-commerce.

**Investment in Skills:** The Rural Advocate's report<sup>5</sup> suggests that, in remote areas, limited availability of training provision compounds skills shortages. We have included data on employer investment in workforce skills, in terms of financial investment, time, and engagement with training providers, from the National Employer Skills Survey.

**Cultural Factors:** A number of studies<sup>6</sup> suggest that low aspirations in remote rural areas inhibit skills development, career progression, and business growth and diversification. For this reason, we seek to include other sources such as the 'Not Entering HE Rate' provided by the Index of Multiple Deprivation. The McLeod Review<sup>7</sup> also suggests that employee engagement is a key determinant of organisational performance. This relates to the culture of the organisation, and the extent to which employees are engaged in its strategic direction and have a say in how it is run.

2.3 Correlation testing and regression analyses were used to explore the relationship between the variables set out above. The income and productivity variables were identified as the dependent variables, with skills considered as both independent *and* dependent. This meant that we explored the relationship of the productivity variables with skills, enterprise, employment, innovation, etc, but also the relationship of skills with all the other drivers. A detailed analysis can be seen in the full report.

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<sup>5</sup> Commission for Rural Communities (2009) *Rural Advocate's Report*

<sup>6</sup> Association of Teachers and Lecturers (2008) *Poverty and Social Exclusion in Rural Areas*; Lincolnshire Assembly *Lincolnshire Economic Strategy 2008-2012*;

<sup>7</sup> McLeod D and Clarke N (2009) *Engaging for Success: enhancing performance through employee engagement* A report to the Department for Business Innovation and Skills

## 3. Key Findings and Conclusions

### A Profile of Remote Rural Areas

- 3.1 Our analysis suggests that remote rural areas are disadvantaged in a number of aspects related to economic performance, workforce and infrastructure. Compared with accessible rural areas, they perform poorly on:
- The levels of skill within the resident population, particularly levels 3 and 4/5;
  - Money generated by firms and earned by workers, measured by weekly household income and turnover per employee;
  - New firm creation;
  - Participation in the labour market, with low levels of economic activity and employment rates;
  - Connectivity, in terms of distance from large urban centres;
  - Availability of 'higher order' jobs, such as managers and professionals occupations, with an over-representation of skilled trades, process/machine operatives and elementary occupations;
  - Aspirations of young people to continue into further and higher education;
  - Propensity for businesses and residents to adopt internet technology; and
  - The ability to attract labour from outside the area, relying instead on a local low skilled labour market. This is particularly the case for areas that are more remote and that have low levels of labour market flows in and out of the district.

### The Relationship between Skills and Income/Productivity in Remote Rural Areas

- 3.2 **Skills and Income:** skills appear to have a greater effect on income in remote rural areas. Areas with high level skills are more strongly associated with high incomes, and those with relatively unqualified populations are more strongly associated with low incomes. This leads to an initial conclusion that skills 'count' in rural areas that are remote from large urban centres.
- 3.3 **Income and Turnover:** few rural areas have both high levels of income and high turnover per employee, which suggests a spatial separation of where people live and work. This makes comparisons of skills and income with firms and turnover problematic. A small number of rural areas demonstrate high levels of income and turnover, and these can be regarded as the areas of the region that are productive both in terms of workplace and income brought into the place of residence. These are primarily accessible rural areas, and include areas of South Northamptonshire, South Derbyshire, Rushcliffe, Melton, East Northamptonshire, and Rutland.

### Determinants of Rural Skills and Productivity

- 3.4 We have identified the following factors as important for the skills-productivity relationship in rural areas.
- 3.5 **Firm Density and New Business Creation:** the number of firms and the presence of micro-businesses are shown to be strongly associated with skills and income in remote rural areas. Remote rural areas with high level 4 qualifications are also likely to show a high number of firms per person, more micro-businesses and a higher rate of new business creation. As with all statistical relationships, it is difficult to establish the direction of any causality, and this relationship may be mutually reinforcing. Vibrant economies with many small independent firms are likely to attract highly qualified workers. However, areas with highly qualified residents are also more likely to sustain the creation and growth of micro-businesses.
- 3.6 **Higher Order Occupations and Industries:** managerial occupations are shown to be strongly associated with high incomes and skills across all areas. However, high skills appear to be more important for obtaining managerial occupations in rural areas. This could suggest that highly skilled residents are more likely to work in managerial occupations in rural than in urban areas and this could be related to the high number of small firms in these areas. This could also reflect the higher level of mobility among highly skilled workers, and that many managers living



in rural areas commute to nearby large urban centres. Conversely, skilled trades are shown to be associated with low incomes across all areas. In the most remote areas, particularly those that are most strongly reliant on agriculture, skilled trades occupations are associated with even lower skills and incomes.

- 3.7 **Labour market participation:** the proportion of people that are economically active and the unemployment rate are shown to be strongly negatively correlated with income and skills in remote rural areas. The relationship of economic activity with skills is stronger in remote rural than accessible rural areas, which suggests that skills are less of a determinant of participation in the labour market in areas close to large urban centres. This could be because of the existence of 'tight' labour markets in urban areas, where there are more jobs than workers, and therefore more opportunities for lower skilled workers to find employment.
- 3.8 Conversely, slack labour markets in remote rural areas, where there are few jobs relative to the size of population, provide fewer opportunities for lower skilled workers to find employment. The large volume of highly skilled workers in accessible rural areas should mean that rural employers have access to a large pool of skilled labour. In reality, however, high skills are associated with high mobility; hence many of the skilled workers who live in rural areas work in jobs based elsewhere. Rural employers can, therefore, find it difficult to recruit suitably qualified or highly skilled workers.
- 3.9 The claimant count has an inverse relationship with level 3 skills and, within the claimant count cohort, the rate of claims among 18-24 year olds has the greatest negative association with level 3 and 4/5 qualifications. This indicates that, in the remote rural East Midlands, areas with low levels of people qualified to level 3 and 4/5 are more likely to demonstrate high levels of unemployment. Low skilled residents, and particularly young residents with low skills, appear to have less chance of finding employment in the remote rural labour market. The relatively high rates of unemployment among young people in remote rural areas could be indicative of the lack of entry level employment opportunities for low skilled workers in these areas, and also a reflection of cultural factors and aspirations (discussed in more detail below).
- 3.10 **Connectivity and Commuting Flows:** connectivity to large urban centres is shown to be associated with skills and incomes across all areas of the East Midlands, but even more so in remote rural areas. Rural areas that lie more than 30km from a large urban centre demonstrate below average weekly household income and low skills levels. Connectivity also has an influence on a number of other indicators, such as the aspirations of young people, unemployment, economic activity, and propensity to adopt new technology.
- 3.11 In our analysis of commuting flows in the East Midlands local authority districts, we have identified that many rural areas that are remote from large urban centres have low in- and out-flows of commuters. These are areas where the majority of people who live in the district also work in the district, and the majority of people who work in the district live in the district. We have defined these areas as having a 'contained' labour market, as the majority of residents find employment in their local area and the majority of employers source their workforce from the local labour market. Our analysis shows that contained labour markets are likely to have low levels of new business creation, and an older business population, with lower levels of turnover. Residents are more likely to have lower skills, lower pay, and are more likely to be working in elementary, service and skilled trade occupations. Economic activity rates are also lower in these areas, which suggests that there is insufficient critical mass in the economy to support the population. Traditional agglomeration theories suggest that this should lead to out-commuting or out-migration to centres of greater economic activity. Further research could identify the causes of individuals' immobility but we suggest that distance, cost, low skills and a lack of awareness or aspirations are all important factors.
- 3.12 **Aspirations and Cultural Factors:** Aspirations are lower in remote rural areas, particularly remote areas with low incomes. Young people in remote rural areas are less likely to aspire to further and higher education, and this in turn is likely to affect employment rates and incomes among young people in these areas. People in remote rural areas are less likely to access internet technology and, therefore, receive time and cost efficiencies brought about by e-commerce and e-government. This suggests that low skills and low aspirations may have

become self-reinforcing in remote locations, where low skills, incomes and labour market participation endure through successive generations.

## Key Findings

- 3.13 **Skills matter in rural areas:** the analysis suggests that high level skills in remote rural areas are more strongly associated with higher order occupations. Conversely lower skills are associated with lower incomes and lower order occupations. This is different to urban areas where skills appear to be less of a determinant of employment, and securing a well paid job. This could be because of greater availability of employment opportunities in urban areas, and in a labour market where there are more jobs than workers, there is more potential for unskilled workers to find employment.
- 3.14 **Local skills levels may be self reinforcing:** Areas with lower skills levels may lose skilled people and not attract in employers or residents with higher level skills. The converse is that places with higher skills levels attract people and employers, so positively reinforcing local skills levels. This fits with cumulative causation theory, where agglomerations of firms and skilled labour create multiplier effects that in turn attract more firms and skilled labour. Rural areas with low skills levels may therefore 'become' less skilled over time, in relation to urban areas. The low aspirations associated with remote rural locations are also likely to feed into the self-reinforcing nature of low skills in these areas.
- 3.15 **Dynamism of the labour market:** A key emerging theme is that remote rural economies are more suppressed than urban economies, because there are fewer jobs, lower levels of employment, and because there is less scope for specialist skills. These factors create a number of dynamics specific to remote rural labour markets:
1. Rural labour markets are inherently constrained by their limited size and this is reinforced by the spatial dispersion of labour (living in smaller and more sparsely distributed settlements) and jobs (due to the greater preponderance of SMEs in rural areas). The limited size and spatial dispersion of labour and employment in rural areas mean that these areas do not demonstrate the benefits of agglomeration of jobs/employment, such as transfer of know how, that is seen in urban labour markets. The rural labour market can be described as 'thin' in terms of its size and density.
  2. Rural labour markets are likely to be less specialised than urban labour markets, because they are relatively smaller and more dispersed. In large settlements, there is sufficient scale to allow for specialisation and this is demonstrated in the greater proportions of highly specialised and professional occupations in urban areas. Conversely, higher proportions of generalist manual skills are likely to be found in less specialised labour markets. Increasing specialisation within the workforce, and the development of specialist skills, are associated with improved performance. This is, therefore, more likely to happen in urban rather than rural firms.
  3. Rural labour markets are 'slack', as they have few jobs relative to the size of the workforce when compared with the 'tight' labour markets of urban areas. This means that there are few options for alternative employment which leads to under-employment and under-utilisation of skills. Remote rural labour markets are also shown to be more 'contained' in that they attract in fewer workers from elsewhere, which also causes difficulties for local employers seeking to recruit skilled workers.
- 3.16 **Labour market dynamics – tightness vs. specialisation:** both 'tightness' and specialisation affect economic performance. As follows, areas with specialisation in skills and a 'tight' labour market will generate higher GVA, whereas areas where there is less specialisation and a 'slack' labour market will have low GVA and not be as competitive or prosperous. Figure 1 below illustrates the implications of these factors for different types of rural area.

**Figure 1 - Labour market dynamics in rural and urban areas – tightness vs specialisation**

Tight (High proportion of jobs relative to working population)	<b>'traditional' production &amp; low-value services (including seasonal)</b>	<b>Prosperous market towns, business clusters</b>
Tightness of labour market	<b>Challenged local economies (remote rural areas)</b>	<b>Urban hinterland and accessible rural</b>
Slack (few jobs relative to working population)		
	'Flat' skills / Generalist	Level of skills specialisation      Specialised

3.17 The four types of labour markets identified through this matrix are:

- **Challenged Local Economies** are those with few job opportunities and low levels of skills. Areas of East Lindsey, North East Derbyshire and Bolsover fall within this category. These can be interpreted as districts with low levels of labour productivity, based on the low skills levels, and also low levels of area-based productivity given that there are fewer jobs per head of population.
- **Traditional production and low value services economies** are again characterised by low skills but have a higher number of jobs locally. South Holland, Boston and Wellingborough appear in this category, as they offer a large number of low skilled jobs.
- **Prosperous market towns and business clusters** are characterised by high skills and high numbers of jobs. Unlike the challenged local economies, these districts have high labour and high area-based productivity. Areas of Rutland, Harborough and the Derbyshire Dales fall in this category.
- **Urban hinterland and accessible rural areas**, which are seen as zones of out-commuting. Rushcliffe, and to a lesser extent South Derbyshire and South Northamptonshire appear in the category. The lack of jobs is not a problem here as the workforce is more highly skilled and therefore more mobile.

3.18 In each of the 4 quadrants, the question of mobility is important for understanding the dynamic of the labour market. Remote rural labour markets are contained, rather than open, because of their poor connectivity to other job markets. A second matrix is therefore presented with "containment" on the vertical axis:

**Figure 2 – Labour market dynamics in rural and urban areas– openness vs. specialisation**

Open	<b>Transient low skill economy</b>	<b>Dynamic high skill economy</b>
Openness of labour market	<b>Undynamic, low skill economy</b>	<b>Strong market town or business cluster</b>
Contained		
	'Flat' skills / Generalist	Level of skills Specialised

- 3.19 Combining these matrices, we can identify localities that appear in the bottom left quadrant in both cases. What we see is that the former coalfields now appear in the top left quadrant as they are within commutable distance to larger urban job markets with opportunities for lower skilled employment. The undynamic, low skill economies are highlighted as South Holland, Boston and East Lindsey.
- 3.20 While low skills and a mobile population is not the ideal situation, it does mean that a high proportion of the population are engaging in economies beyond the immediate region which may provide access to work-based learning, a greater range of jobs and potentially higher incomes.
- 3.21 Where districts are in the bottom left quadrant for both matrices, individuals lack access to alternative employment and skills development opportunities. The local economy can be regarded as undynamic due to lack of inward and outward movement, fewer business starts, lagging wage levels, lagging skills levels and higher levels of unemployment.
- 3.22 Remote rural businesses within the type of economy shown in the bottom left quadrant are likely to face greater difficulties recruiting the staff they need. This is because of the low skills of the local labour market, low in-flows of labour from elsewhere, and also poor connectivity associated with remote areas. The limited availability of skilled labour has implications for labour productivity, as firms may not be able to find employees with the skills or experience required. As discussed above, firms in urban and accessible rural areas have access to a greater pool of skilled labour, and so are able to develop specialisation within the workforce, which is associated with improved performance. Remote rural firms are likely to be less specialised, and with limited access to skilled workers, are likely to be less competitive.
- 3.23 Left to market forces, these “challenged local economies” should see significant levels of out-commuting and out-migration. However, connectivity, low skills levels, low aspirations and low incomes are barriers to mobility. The sense that low skills can create immobility becomes a serious issue for more rural locations. In tight labour markets, low-skilled employment opportunities are more readily available but in rural areas the options for these individuals are significantly restricted. The cycle of low skills → low income → low mobility → low aspirations → low skills development creates a stagnant local economy characterised by fewer business starts, low levels of demand and less competitiveness. By contrast, districts with greater flows of in- and out-commuting are able to integrate into areas with greater economic potential and overcome some of the disadvantages of rurality.
- 3.24 The most challenged rural localities can be described as having thin, generalist, slack and contained labour markets. Their economies are suppressed, as they have limited opportunity for specialisation and, therefore, scope to increase productivity. This is little potential for the development of higher skills or high wages, nor the creation of career opportunities or

progression routes for people working in remote rural economies. Poor connectivity and low aspirations in these areas can mean that these disadvantages become self-reinforcing. This suggests that policy could focus on facilitating the development of ‘thicker’ labour markets in rural areas, on increasing mobility and connectivity, or facilitating business creation, growth, and innovation to increase employment opportunities.

