
EXPLORING LOCAL AREAS, SKILLS AND UNEMPLOYMENT: EXPLORATORY DATA ANALYSIS AT LOCAL AREA LEVEL

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The *Exploratory Data Analysis at Local Area Level* report is the first in a series (entitled *Exploring Local Areas, Skills and Unemployment*) which explores the relationship between hard-to-fill and skill shortage vacancies and unemployment, aiming to understand local variations better in order to inform local policy initiatives. This work builds on initial spatial analysis using the 1999 Employer Skills Survey. The further stages of the research involve econometric analysis and in-depth case studies, focusing on local areas where there is a relatively high incidence of hard-to-fill and skill-shortage vacancies co-existing alongside relatively high unemployment levels.

Key findings of the exploratory data analysis are as follows:

The research reveals some evidence for a North-South divide in both hard-to-fill and skill-shortage vacancies. However, a broad regional perspective disguises the variation that is apparent within regions.

Within most regions there are marked local variations in the incidence of hard-to-fill and skill-shortage vacancies. For example in the South East region skill deficiencies are particularly acute in an arc of local areas to the north, west and south of London, but are less pronounced in Kent/Medway.

The research shows a relatively high incidence of hard-to-fill and skill-shortage vacancies co-existing alongside relatively high unemployment levels in some metropolitan areas - such as London Central and London East. Cumbria, Lancashire, Birmingham/Solihull and Devon/Cornwall also share similar characteristics, but to a less marked extent.

The analyses presented in this exploratory report suggests that the level of skill deficiencies cannot be explained solely in terms of the 'tightness' of the local labour market, as measured by the unemployment rate. The report identifies other potential factors which may give rise to this paradox:

- skills mismatch.
- problems with mechanisms allocating people with skills to jobs.
- problems with the motivation and intentions of the unemployed.
- shortcomings in the efficiency and effectiveness of employers' search for labour.

Background

The National Skills Task Force acknowledged that a national skills strategy needs an explicit and coherent spatial component with local action tied to local needs. The establishment of the Local Learning and Skills Councils (LLSCs) and Learning Partnerships provide further impetus for developing knowledge of skill requirements at a sub-regional level.

This report is the first stage in a multi-method research project designed to explore the apparently paradoxical co-existence of high vacancy rates and high levels of local unemployment. This project builds on initial spatial analysis which was undertaken using ESS1999¹. This first stage of the work uses The Employers Skill Survey 2001 (ESS 2001) and aims to establish if this 'paradox' exists and, if so, in which areas. The work then aims to set out some hypotheses as to why any paradox may occur as a basis for the further elements of this project, where this relationship will be explored in more detail.

IER, PRI and IFF² were commissioned to undertake the research which is organised into three inter-related stages.

- Exploratory data analysis of the Employers Skill Survey 2001 database to analyse the relationship between skill-shortage vacancies and unemployment at the Local LSC level
- Econometric analysis which examines the issues raised in the exploratory spatial report in more detail
- Semi-structured interviews with employers with skill-shortage related vacancies in areas where unemployment is high

The results of the project will inform local policy responses on the basis that a

better understanding of local issues will allow more focused local policy responses.

A North-South divide

The research reveals some evidence for the North-South divide in both hard-to-fill and skill-shortage vacancies. The Eastern region, the South East, London and the South West all record an incidence of hard-to-fill and skill-shortage vacancies in excess of the England average. Yorkshire & the Humber, the North East, the North West and the East Midlands record a lower than national average incidence of such vacancies.

However, a broad regional perspective disguises the variation that is apparent within regions.

Intra-regional differences

Within most regions there are marked local variations in the incidence of hard-to-fill and skill-shortage vacancies. In the Eastern region local areas in the western part of the region display a higher incidence of such vacancies than those further east. In the South East region skill deficiencies are particularly acute in an arc of local areas to the north, west and south of London, but are less pronounced in Kent/Medway. Only in Yorkshire & the Humber and the North East do all local Learning and Skills Council areas record a lower than average incidence of vacancies.

Gloucestershire, Wiltshire/ Swindon, Bournemouth/ Dorset/Poole, Hertfordshire, Surrey, Berkshire, Oxfordshire/ Buckinghamshire/Milton Keynes, East Sussex/ West Sussex/Brighton & Hove and London Central display a higher than average incidence of hard-to-fill and skill-shortage vacancies on all measures used in the analyses.

Analysis based on a grouping of local districts into areas with similar socio-economic and demographic profiles reveals that 'Inner London' and 'Prosperous England' have the highest

¹ Employers Skill Survey: Skills, Local Areas and Unemployment (2001) produced by IER on behalf of DfES

² The Institute of Employment Research, University of Warwick, the Policy Research Institute at Leeds Metropolitan University and IFF Research Limited

incidence of hard-to-fill and skill-shortage vacancies. However, skill deficiencies are not confined to these areas, with 'Remoter rural areas' facing particular problems of hard-to-fill and skill-shortage vacancies. The 'Coalfields' display the lowest incidence of such vacancies.

Skill deficiencies and unemployment

Examination of local variations in hard-to-fill and skill-shortage vacancies alongside unemployment and non-employment rate measures reveals (in most instances) a negative relationship - i.e. in general, low unemployment rate areas tend to have a higher average incidence of hard-to-fill and skill-shortage vacancies than high unemployment rate areas, and vice versa. However, in statistical terms, the relationships are either weak or not significant. In general, the relationships involving hard-to-fill vacancies are stronger than those involving skill-shortage vacancies, and are weaker than those observed with ESS1999 data (at a time when the overall level of skill deficiencies was higher than in 2001). The weakness of the relationship implies considerable variation in the relationship between unemployment and vacancies at the local level.

This variation suggests that the level of skill deficiencies cannot be explained solely in terms of the 'tightness' of the local labour market, as measured by the unemployment rate. This underlines the complexity of the association between unemployment and vacancies at local level. The report identifies other potential factors which may give rise to this paradox:

- The situation of relatively high unemployment alongside relatively high numbers of vacancies available could reflect skills mismatch.
- There may be problems with mechanisms allocating people with skills to jobs.
- There may be problems with the motivation and intentions of the unemployed preventing them from seeking effectively for jobs.

- There may be shortcomings in the efficiency and effectiveness of employers' search for labour, such that individuals with the necessary skills are overlooked.

The report presents a typology of LLSC areas on the basis of observed relationships between unemployment and vacancy levels at local level. The typology shows a relatively high incidence of hard-to-fill and skill-shortage vacancies co-existing alongside relatively high unemployment levels in some metropolitan areas - such as London Central and London East. Cumbria, Lancashire, Birmingham/Solihull and Devon/Cornwall also share similar characteristics, but to a less marked extent. (From this group, London East, Birmingham/Solihull and Lancashire were selected for more detailed case study analysis in order to provide further insight into the 'paradox' of high unemployment co-existing alongside a higher than average incidence of vacancies.)

Further descriptive analyses

The report presents information on the reasons for hard-to-fill and skill-shortage vacancies, with a 'low number of applicants with skills' identified as the single most important reason across high, medium and low unemployment rate areas. 'Lack of work experience' emerges as a more important reason for hard-to-fill and skill-shortage vacancies in high unemployment rate areas than in medium or low unemployment rate areas.

There are marked local variations in the profile and incidence of hard-to-fill and skill-shortage vacancies by occupation, industry and establishment size. (The influence of these dimensions of variation in understanding the incidence of skill deficiencies is explored in more detail using multivariate econometric techniques in another part of the project.)

The local and regional patterns revealed in these exploratory analyses provide useful

comparative information for the development of skills strategies and raise important issues concerning balanced regional development both between and within regions.

Additional information

Copies of this Research Brief (RBX06-02) and the full report (ref ELA1) are available free of charge from DfES Publications, PO Box 5050, Sherwood Park, Annesley, Nottingham NG15 0DJ (tel: 0845 222 60). Both can be accessed at <http://www.dfes.gov.uk/research/> and also at www.skillsbase.dfes.gov.uk.

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