

BULLETIN

Skills shortages, vacancies and local unemployment

Introduction

In the last decade, unemployment has halved and job vacancies more than doubled. As a result, there is now one vacancy for every two unemployed people who are looking for work. Ten years ago this ratio was nearer to one vacancy for every 10 unemployed people.

This project¹ examines the relationships between employers' recruitment difficulties, job vacancies and local unemployment in order to understand why there are still workers without jobs and jobs without workers. A mixed-methods approach is adopted which results in three separate research reports. Each examines different but inter-related aspects of the question:

- First, there is an exploratory data analysis of the Employers Skill Survey 2001 (ESS2001). This describes and analyses the spatial relationship between vacancies – particularly those which are hard-to-fill and/or result from skill-shortages amongst the applicants – and unemployment across the 47 local Learning and Skills Council (LSC) areas in England (Green and Owen, 2002).
- Second, there is an econometric analysis of the determinants of vacancies at the establishment-level, with a focus on the relationship between vacancies and local labour market conditions, including the local unemployment rate. This analysis is also based on secondary analysis of ESS2001, together with a range of other data sources used to provide detailed local labour market information (Dickerson, 2003).

¹ The research summarised in this Bulletin was commissioned by the Department for Education and Skills (DfES) under the project title: *Exploring local areas, skills and unemployment*. There are four separate research reports: Green and Owen (2002), Dickerson (2003) and Hogarth *et al.* (2003a, 2003b). The four reports are available electronically, free of charge, on Skillsbase (www.skillsbase.dfee.gov.uk) or on the DfES research website (www.dfes.gov.uk/research/). Printed copies of the reports are available from Prolog: 0845 60 222 60 or email dfes@prolog.uk.com. The views expressed in this Bulletin are those of the authors of the reports and should not necessarily be attributed to DfES. Contact: andy.dickerson@warwick.ac.uk.

- Third, there is a set of semi-structured interviews examining the recruitment practices of 100 employers in three local LSC areas which are experiencing relatively high rates of hard-to-fill vacancies, as indicated by ESS2001, and relatively high local unemployment rates (Hogarth *et al.*, 2003a).

A comprehensive synthesis of the three reports is also available (Hogarth *et al.*, 2003b).

Exploratory data analysis at local area level

The first report examines the spatial relationships between vacancies and unemployment at the local LSC level. Particular attention is focussed on those vacancies which are designated 'hard-to-fill' by employers, and the subset of these hard-to-fill vacancies that remain open because of low numbers of applicants with the required skills, qualifications or work experience that the company demands. The latter are called skill-shortage vacancies.

The key findings of this report can be summarised as follows. Firstly, there is evidence of a North-South divide in both hard-to-fill and skill-shortage vacancies. Figure 1 shows the number of hard-to-fill and skill-shortage vacancies in the 47 local LSCs measured as a proportion of employment. Darker-shaded areas indicate local LSCs with more vacancies of each type per person in employment, while the lighter-shaded areas indicate fewer vacancies per person in employment.

Despite the evidence of a North-South divide, it is apparent that this broad regional perspective disguises considerable intra-regional variation in the incidence of hard-to-fill and skill-shortage vacancies. For example, in the East of England, local LSC areas in the western part display a higher incidence of such vacancies than those in the east. Similarly, in the South East region, skill deficiencies leading to greater vacancies are particularly acute in an arc of local areas to the north, west and south of London, but are less pronounced in Kent/Medway.

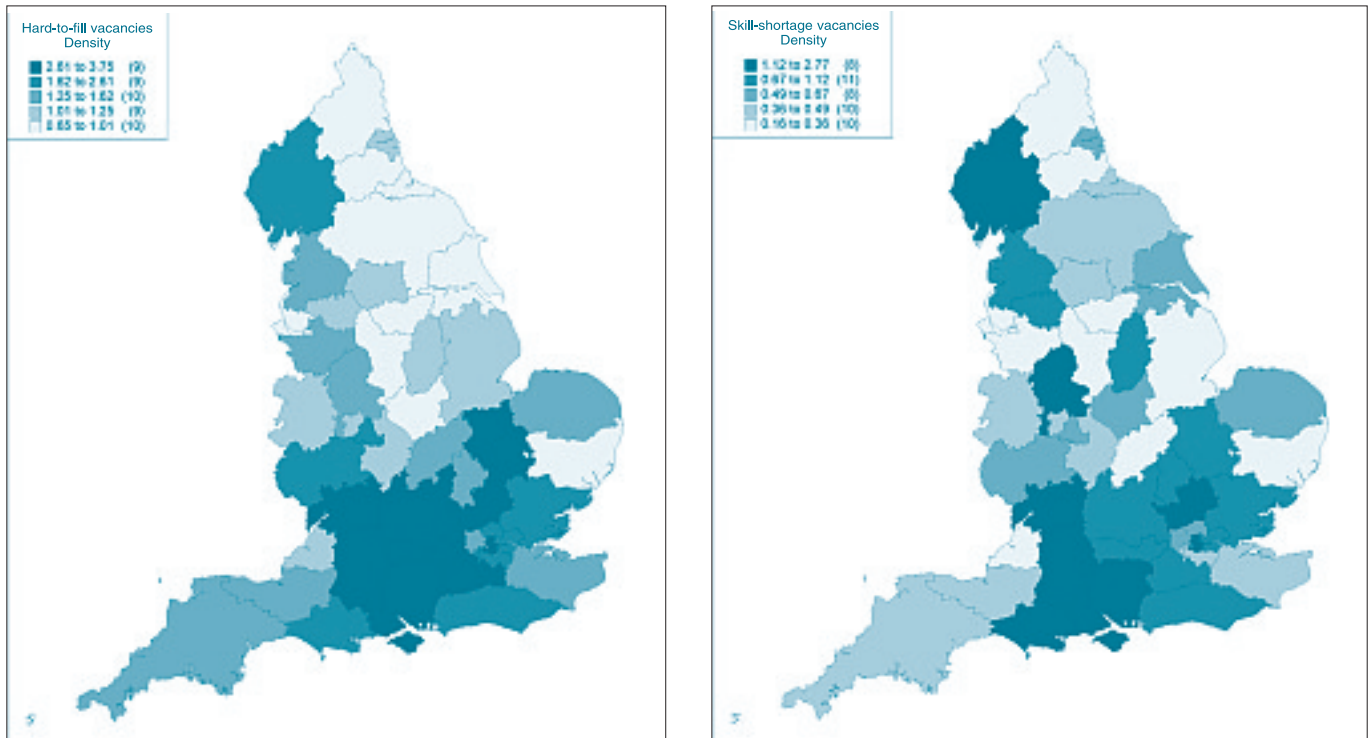


Figure 1: Hard-to-fill and skill-shortage vacancies. Source: Green and Owen (2002)

Secondly, an examination of the relationship between hard-to-fill and skill-shortage vacancies and the local employment and non-employment rates reveals, in most instances, a negative relationship as expected.

That is, in general, areas with higher than average hard-to-fill and skill-shortage vacancies tend to have lower than average unemployment/non-employment rates, and *vice versa*. This pattern is consistent with the normal functioning of local labour markets.

The relationships involving hard-to-fill vacancies are more evident than those involving skill-shortage vacancies. However, in general, the vacancy-unemployment relationships are, statistically, quite weak. In particular, some metropolitan LSC areas – such as London Central and London East – have a relatively high incidence of hard-to-fill and skill-shortage vacancies and also have relatively high unemployment. The areas covered by Cumbria, Lancashire, Birmingham/Solihull and Devon/Cornwall LSCs share similar characteristics, although to a lesser extent.

This variation suggests that the levels of hard-to-fill and skill-shortage vacancies cannot be explained solely in terms of the ‘tightness’ of the local labour market as measured by unemployment at the local level. A number of other factors which may potentially impinge on the local vacancy-unemployment relationship are identified in the report:

- A situation of relatively high unemployment alongside relatively high numbers of vacancies could reflect a mismatch between the skills required for the jobs available and those possessed by the unemployed;
- There may be problems with the mechanisms for allocating people with skills to the jobs available;

- There may be problems with the motivation and intentions of the unemployed which prevent them from searching 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 relationship between vacancies and local unemployment

Despite the statistically weak relationships between hard-to-fill and skill-shortage vacancies and local unemployment described in the first report, at the economy-wide level and over time there is clear evidence of a strong inverse relationship between total vacancies and aggregate unemployment.

Figure 2 plots the Employment Service statistics on job vacancies and local unemployment as notified to Jobcentres – which are estimated to represent approximately one-third of all vacancies nationally – and total unemployment. As unemployment rose in the early 1990s and then fell, the stock of vacancies correspondingly fell and then rose strongly. This inverse relationship between vacancies and unemployment is called the ‘Beveridge Curve’.

A better understanding of the determinants of vacancies is clearly important in order to explain the unemployment-vacancy relationship. Thus, the second report conducts a detailed multivariate analysis of the factors that lead to some establishments having vacancies while others have none – that is, the report examines the determinants of vacancy ‘incidence’.

In addition, the factors that influence how many vacancies establishments have as a proportion of the total number of jobs

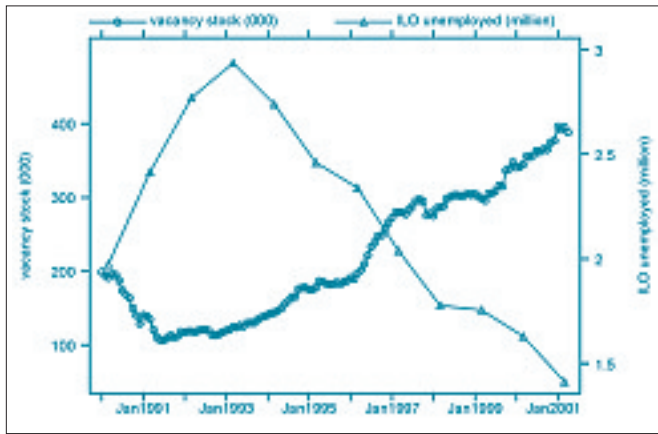


Figure 2: Vacancies and unemployment in the UK 1990-2001. Source: Dickerson (2003)

are investigated – that is, the report also examines the determinants of the vacancy ‘rate’. A wide range of establishment and firm characteristics, as well as local labour market factors, are taken into account. This set of factors includes the local unemployment rate, and thus the report also examines whether a local Beveridge curve can be identified at the establishment level once the impact of the many other determinants of vacancies have been controlled for.

The key findings of this report can be summarised as follows. Firstly, at the time of the ESS2001 survey in Spring 2001, approximately 15 per cent of establishments in England reported they had at least one vacancy and that just under three per cent of all jobs were unfilled.

There is relatively little spatial variation in vacancy incidence or vacancy rates when compared to the differences in vacancies between establishments in different industries.

About one quarter of education, health and social work, and public administration establishments reported they had some vacancies, with those in the education and health sectors tending to report vacancies that were hard-to-fill – up to twice the average national rate.

However, hotels and restaurants had the highest vacancy rate, with over four per cent of jobs in the sector vacant at the time of the survey. This is probably a reflection of the high employee turnover in this particular industry.

Secondly, having taken account of multifarious measurable factors affecting vacancies, the report shows that both vacancy incidence and vacancy rates tend to be higher in establishments located in local LSC areas where unemployment is lower, and *vice versa*.

That is, there is a negative relationship between establishment-level vacancies and the local unemployment rate. This result is consistent with much of the previous research.

Thirdly, the negative relationship between vacancies and local unemployment is weaker for hard-to-fill vacancies and weaker still for skill-shortage vacancies than it is for total vacancies. This finding is unsurprising given the preponderance of unskilled individuals amongst the unemployed – skill-shortage vacancies are precisely the kinds of jobs that the unemployed are least likely to be qualified for.

For these vacancies, which represent about one in five of all vacancies, a skill-mismatch between the ‘jobs without workers’ and the ‘workers without jobs’ is undoubtedly part of the problem. However, for the majority of vacancies which are unrelated to skill shortages, recruitment is rather more responsive to differences in local unemployment rates.

Finally, while a large number of establishment, firm, industry and local labour market characteristics are found to be significant determinants of vacancy incidence and the vacancy rate, there remains considerable variation in vacancies between otherwise similar establishments which cannot be accounted for. This is partly a consequence of the high level of labour turnover – or vacancy flows – in relation to the number of vacancies at any point in time – the vacancy stock.

Despite this variation, the major finding in this report is the existence, overall, of a strong negative relationship between establishment-level vacancies and local unemployment when the factors that are systematically related to vacancies and local unemployment are taken into account.

While vacancies and/or unemployment may be greater in some areas than others – due to their particular sectoral and structural composition for example – on average, the empirical evidence reveals that vacancies are higher where unemployment is lower and *vice versa*. This is indicative of local labour markets operating in the expected manner.

Employer case studies

While the evidence in the first and second reports points to a negative unemployment-vacancy relationship at the local level, as highlighted in the first report, there are a number of local LSC areas which exhibit recruitment difficulties – as evidenced by a relatively high incidence of hard-to-fill and skill-shortage vacancies – and also a high unemployment rate.

In this sense, these areas lie above the Beveridge curve. The third report selects around 100 establishments in three such areas – Birmingham/Solihull LSC, Lancashire LSC and London East LSC. Using a semi-structured interview schedule, employers were asked about their recruitment difficulties and their responses to these difficulties.

The main findings from these case studies can be summarised as follows.

Firstly, some hard-to-fill vacancies arise as a consequence of pay and conditions of employment being insufficient to attract staff of the calibre required. Typically, these hard-to-fill vacancies are for semi-skilled and relatively unskilled jobs where the tasks can be learned-by-doing during the induction training period. This suggests the skills required to fill these jobs are fairly low-level and therefore not in short supply.

Relative wage levels and unattractive working conditions are also likely to be related to labour turnover. An inability to recruit staff because wages are too low, for example, is also likely to be reflected in problems of retaining staff if better jobs are available elsewhere, and, indeed, the case studies indicate that high labour turnover is a major cause of recruitment problems.

In contrast to these low-skilled vacancies, hard-to-fill vacancies for higher level occupations arise because of an absolute shortage

of the skills required in the labour markets in which the employers are operating.

Secondly, the analysis shows that many employers tend to 'muddle through' in response to recruitment problems. That is, they make the best of available resources but typically do not significantly alter their behaviour in response to recruitment problems. However, some employers have more responsive human resource policies. They give attention to staff retention, for example by offering more flexible hours of work, or provide greater training and development opportunities.

As a consequence, these employers appear to have fewer recruitment problems and lower staff turnover. Some employers contend that, if it is impossible to recruit fully-experienced and skilled workers, the only alternative is to train their existing employees to the required standard. This offers some form of career progression and also brings benefits in terms of better labour retention.

Thirdly, while many employers do not discriminate against the unemployed *per se*, in practice relatively few consider the unemployed to be a likely source of new employees. Indeed, the employers surveyed were disinclined to use Jobcentres to advertise vacancies. Rather, they tend to look for alternative sources of labour amongst the economically inactive, including the recently retired, early retired, new immigrants or women returning to the labour force, to fill their vacancies.

Fourthly, the analysis found many hard-to-fill vacancies resulted from employers having a rather specific set of requirements for any would-be recruit. Whilst they are willing to lower their recruitment standards to a certain degree, they nevertheless require recruits to reach the standard required within a short period of time – typically, the probationary period.

If this is not thought to be likely, some employers are willing to let a vacancy lapse because the costs of recruiting an unsuitable applicant are thought to be greater than not recruiting at all. Indeed, as reported by several respondents in larger organisations, the administration costs associated with hiring and firing can be considerable.

Finally, the evidence from Lancashire LSC points to its more rural areas being a source of recruitment problems. Where employers occupy a rather remote location and have vacancies for relatively low paid jobs, then the capacity of people to travel far to fill those jobs is limited by the availability of public transport and the costs of travel.

This is not, however, a problem unique to rural locations. Whilst it may be more acute in Lancashire LSC, the inability of people to travel far when jobs are low paid means that employers in Birmingham/Solihull LSC and in London East LSC are also dependent upon their local labour supply. This reliance on the local labour market is further exacerbated if shift work and/or early morning starts are required, since public transport may not be available at these times.

Conclusions and Key Findings

The study was designed to explore the relationship between recruitment problems and unemployment at a local level and to elicit the views of employers on their recruitment difficulties and

on the unemployed as a potential source of labour. The research consists of an exploratory data analysis at local area level, an establishment-level multivariate analysis of the relationship between vacancies and local unemployment and, finally, a set of qualitative interviews with employers who are experiencing recruitment difficulties in local LSC areas where the levels of unemployment and vacancies are both relatively high.

Recruitment problems tend to be concentrated in southern England between west London and Bristol, stretching north into Oxfordshire and south to the English Channel. In general, these are also areas of low unemployment.

However, only a weak negative statistical relationship is found between hard-to-fill and skill-shortage vacancies and local unemployment, and there are a number of local LSC areas where high levels of unemployment and serious recruitment problems co-exist.

Once account is taken of various measurable establishment and local labour market differences, an establishment-level negative relationship between total vacancies and local unemployment is revealed. However, there is considerable variation in the data partly as a consequence of high labour turnover.

Moreover, while higher vacancy rates tend to be associated with lower local unemployment rates, and *vice versa*, this relationship is much weaker for skill-shortage vacancies. This finding is evidence of a skills-mismatch, as these are exactly the jobs for which the unemployed are least likely to be qualified.

Whilst the unemployed are only a small part of the reserve labour force, they are heavily disadvantaged for a host of occupational, social, demographic and psychological reasons. In general, they are viewed poorly by employers who appear to favour other types of labour, such as the retired, early retired, migrant workers – especially in London – and women returning to work.

In response to their recruitment problems, many employers tend to 'muddle through' rather than significantly alter their recruitment policies and practices. However, the case study evidence suggests those employers engaging in more training and development of their staff experience fewer recruitment difficulties and lower staff turnover.

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