
EXPLORING LOCAL AREAS, SKILLS AND UNEMPLOYMENT: THE RELATIONSHIP BETWEEN VACANCIES AND LOCAL UNEMPLOYMENT

Andy Dickerson
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This report is the second in a series entitled *Exploring Local Areas, Skills and Unemployment*. The work explores the relationship between vacancies and unemployment using the 2001 Employers Skill Survey (ESS2001). It builds upon an initial spatial analysis (Green and Owen, 2002), mainly at the local Learning and Skills Council (LLSC) level, and is followed by a report on a set of case studies in LLSCs in which a relatively high incidence of hard-to-fill and skill-shortage vacancies is coupled with relatively high unemployment (Hogarth *et al*, 2003a). A synthesis report which brings together the findings of all three components of the project is also available (Hogarth *et al*, 2003b).

This report investigates the distribution and determinants of vacancies at the establishment level, with a focus on the importance of local labour market conditions, particularly unemployment, for firms' recruitment activities.

Key Findings

- Vacancy incidence and vacancy rates tended to be higher in establishments located in areas where unemployment was lower, and *vice versa*. That is, there is a negative relationship between vacancies and the local unemployment rate. In this important sense, local labour markets would appear to be working as expected, even in a period of (close to) full-employment.
- This negative relationship between vacancies and local unemployment was weaker for hard-to-fill vacancies and weaker still for skill-shortage vacancies. This finding is unsurprising since these are exactly the jobs that the unemployed are least likely to be qualified for, indicating that skill mismatch is part of the problem. For the majority of vacancies which are unrelated to skill shortages, recruitment is rather more responsive to changes in local unemployment.
- The analysis showed that the local area that an establishment is located in has a relatively large effect on how common skill shortages are. The industry sector has a much smaller effect on the skill shortage vacancy rate, and region, size and whether it was public/private a smaller effect still.
- Even though they were much more likely to have at least one vacancy, vacancy rates were lower for larger establishments than for smaller establishments.

Background

This paper is the second in a series exploring the relationship between vacancies and local unemployment. The project - entitled *Exploring Local Areas, Skills and Unemployment* - has three components.

The first stage (Exploratory Data Analysis at Local Area Level, Green and Owen, 2002) presents a spatial analysis of the 2001 Employers Skill Survey (ESS2001) at the local Learning and Skills Council (LLSC) level. It finds that the relationships between hard-to-fill and skill-shortage vacancies and local unemployment, while negative as expected, are very weak. In particular, it identifies a number of LLSCs which have relatively high vacancies and high unemployment and suggests that these LLSCs merit further consideration since they do not conform to the conventional Beveridge or UV curve relationship. Three of these apparently 'paradoxical' LLSCs (namely Birmingham and Solihull LSC, East London LSC and Lancashire LSC) are chosen as the location for the case studies in the third stage of the project in order that an analysis can be made of the underlying processes which give rise to the recruitment difficulties and employment relationships in these localities (Employer case Studies, Hogarth *et al*, 2003b).

This second stage of the project investigates the relationship between vacancies and local unemployment in further detail, again using the ESS2001. In particular, it describes and analyses the distribution and determinants of vacancies at the establishment level. In addition, it investigates the importance of local unemployment for vacancies at the establishment level once the other factors

which determine vacancies have been taken in account.

The Distribution of Job Vacancies

The first part of the report describes the distribution of job vacancies of different kinds. At the time of the ESS2001 survey (November 2000 - March 2001), 14.5 per cent of establishments in England reported that they had at least one vacancy (vacancy incidence). Around 7.5 per cent of establishments had vacancies that were hard-to-fill and 3.7 per cent of establishments had some vacancies which were hard-to-fill because of skill-shortages amongst the applicants.

The analysis showed that the local area that an establishment is located in has a relatively large effect on how common skill shortages are. The industry sector has a smaller effect on the skill shortage vacancy rate, and region, size and whether it was public/private a smaller effect still.

Looking at broader geographical areas there is relatively little regional variation in vacancy incidence or vacancy rates when compared to the differences in vacancies between industries. Around one quarter of education, health and social work, and public administration establishments reported that 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 national average. However, the hotels and restaurant industry had the highest vacancy rate, with over 4 per cent of jobs in the sector vacant at the time of the survey. This is probably a reflection of the high job turnover in this particular industry.

The Determinants of Job Vacancies

The analysis shows that larger establishments are more likely to have at least one vacancy but tend to have lower vacancy rates than smaller establishments. Thus, the modelling strategy allows the determinants of vacancy incidence to differ from the determinants of the vacancy rate. 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. However, despite this, there remains considerable variation in vacancies which cannot be accounted for by the observable differences between establishments. This is partly a consequence of the high level of labour turnover (vacancy flows) in relation to the number of vacancies at any point in time (vacancy stock). Even for two otherwise identical establishments, at any point in time, one may currently have some unfilled jobs while the other may not.

The results indicate that, in general, vacancy incidence and vacancy rates tend to be higher where local unemployment is lower, and *vice versa*. This result is consistent with much of the previous research in this area. Local labour markets therefore seem to operate in the manner predicted by standard models of the matching process between the unemployed and the vacancies available, even in a period of (close to) full-employment, giving rise to a downward sloping Beveridge or UV curve. This negative relationship between vacancies and unemployment exists for total vacancies, and also for the differing subsets of vacancies in general, but it is weaker for hard-to-fill and for skill-shortage vacancies in particular. This finding accords with prior

expectations since these are exactly the types of vacancies that the unemployed are least likely to be qualified for and thus least able to fill.

Policy Implications and Conclusions

Even having accounted for a large number of factors which can affect the level of vacancies, vacancy rates are still quite dissimilar between otherwise similar establishments. However, despite this variation, the major finding in this report is the existence of strong negative relationship between establishment-level vacancies and local unemployment when the factors which 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 composition for example - and there is, of course, some variation in the magnitude and statistical strength of the responsiveness of vacancies to changes in local unemployment across LLSCs, on average, the empirical evidence clearly reveals that vacancies are higher where unemployment is lower and *vice versa*. This is indicative of the local labour markets operating in the expected manner - there would appear to be no evidence for any pervasive problems in the allocation of workers to jobs and jobs to workers.

From a policy perspective, this finding does not negate the role of institutions designed to facilitate the operation and functioning of labour markets. Rather, the results in this report indicate that differences in vacancies and local unemployment rates are more a consequence of the composition of employment and unemployment in the local area than any systematic failure of the local

labour market to operate and adjust in the expected manner.

Additional Information

The reports are available electronically, free of charge, on the Skillsbase website www.skillsbase.dfes.gov.uk or the research website www.dfes.gov.uk/research/. Hard copies are available from Prolog: 0845 60 222 60 or email dfes@prolog.uk.com quoting code ELA 1 - 4. For further information contact Vikki Caulfield: email vikki.caulfield@dfes.gsi.gov.uk or Tel 0114 259 4309.

Copies of the Research Brief (RBX04-03) are available free of charge from DfES Publications, PO Box 5050, Sherwood Park, Annesley, Nottingham, NG15 0DJ.

References

Green A E and Owen D (2002), *Exploring Local Areas, Skills and Unemployment: Exploratory Data Analysis at Local Area Level*, Department for Education and Skills

Hogarth T, Devins D, Hasluck C, Jacobs C and Johnson S (2003a), *Exploring Local Areas, Skills and Unemployment: Employer Case Studies*, Department for Education and Skills

Hogarth T, Wilson R, Daniel W, Devins D, Dickerson A, Green A, Hasluck C, Johnson S, and Owen D (2003b), *Skill Shortages, Vacancies and Local Unemployment: A Synthesis of the Exploring Local Areas, Skills and Unemployment Analyses* Department for Education and Skills