

Mismatch and unemployment in local labour markets

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Mismatch and unemployment in local labour markets (Regional Migration and Labour Markets theme)

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Abstract

This paper examines employer-jobseeker mismatch and the extent to which the time needed to fill vacancies is affected by characteristics and practices of employers in two different travel to work areas. Unemployment due to mismatch has been explained in economic literature as a function of factors such as changes in market structure, information asymmetry caused by inefficient job matching processes such as employment agencies, and lack of workforce flexibility in terms of geographic mobility, wages and skills. Policy measures aimed at reducing mismatch have largely concentrated upon increasing worker flexibility by way of skills training and benefit sanctions together with schemes to increase job search efficiency on the part of the worker.

National policies may be effective at reducing the level of unemployment nationally, but they do not take into account the diverse nature of local labour markets. To reduce unemployment in regions with an inherently low demand for labour it may not be sufficient to implement the supply side measures as described above. It has been argued that skill shortages are only a subset of more general recruitment difficulties amongst firms, although many studies equate the two. This paper suggests that supply side factors in general are a subset of recruitment difficulties, particularly in regions with a low demand for labour. It was hypothesised that for both TTWAs there are particular demand side determinants of mismatch unemployment, reflecting the nature and attitude of employers, that would be associated with vacancy duration.

The paper reports findings from a series of 126 in-depth interviews carried out with employers in the Edinburgh and Bathgate TTWAs. The interviews generated information of a quantitative and qualitative nature on the characteristics, attitudes and recruitment practices of employers, together with the time taken to fill the last vacancy. Using results from a multiple regression of vacancy duration against the independent variables, evidence is found that firm characteristics, employer reputation, recruitment standards, gender preference, type of contract and methods of recruitment all have a significant effect on vacancy duration. Evidence was found of significant differences between the areas in the factors associated with vacancy duration.

Local labour market; mismatch; Skill shortage; Job contracts; Vacancy duration; Training policies

I INTRODUCTION

This paper considers the causes of mismatch unemployment by examining the importance of employer and vacancy characteristics in prolonging vacancy duration in local labour markets. While research and government policy has highlighted deficiencies in the skills and other characteristics of jobseekers as a major cause of unemployment, the corresponding role of employers has received relatively little attention. There is a need to redress this imbalance and thereby provide a more complete understanding of the causes of unemployment and policies to reduce it. When considering persistently high levels of unemployment in local labour markets it is important to analyse mismatch between employer and jobseeker expectations, in a low labour demand environment. In such circumstances it is argued therefore that skill shortages, and indeed many supply side factors, can be considered as a subset of more general recruitment difficulties rather than the problem being primarily or solely one of skill shortages *per se* or skill mismatch. Hence the importance of a number of specific non-supply side factors need to be examined in order to fully explain the extent of mismatch unemployment.

Over the last decade, the issue of the international competitiveness of economies has been a central thrust of macroeconomic policy in the European Union (EU), UK and elsewhere (DTI, 1998). A key element of this, particularly in the UK, has been policies of labour market liberalisation aimed at improving flexibility. This has included a strong emphasis on training together with stricter legal controls on trade union activities, removal of wages councils and several employee protections, the encouragement of a strong management culture and persistent demands made on the general labour force to become more flexible (see SNOWER, 1995 for a review of policies). These are essentially the policy prescriptions which logically flow from the competitive market paradigm of much of labour economics. In the context of the UK this approach to improving international competitiveness was rooted in the argument that one of the UK's fundamental economic constraints was one of an inflexible, low-skilled, low mobility labour force and hence represented a key supply-side constraint to economic growth.

In policy terms, it continues to be a persistent feature of UK employer surveys on labour market issues that one of the major obstacles to increased production and/or expansion is the lack of skilled and experienced workers available to firms at any given time (DfEE, 1996). This has been consistently viewed by national and local agencies as fundamentally a supply-side problem which can only be properly addressed by long term investment in human capital. Basically the policy response has been an almost universal implementation of Say's Law but undertaken at the local level by a myriad of agencies responsible for local economic development. The standard explanations for persistent unemployment have particularly focused on the supply-side (OECD, 1994). However, while supply side issues are important, after nearly two decades of supply-side orientated labour market policy in the UK unemployment in many local labour markets remains high and persistent. Hence, greater understanding of demand-side factors, such as the role of employer expectations and practices is necessary (BLANCHFLOWER and FREEMAN, 1994; SHACKLETON, 1995).

The supply-side emphasis (in both theory and policy) tacitly accepts a view of the demand for labour as a given - for example, at the extreme it is controlled solely by the profit maximisation criterion and presents *de facto* the true number and true quality of workers which firms wish to employ. However it is extremely rare in the mismatch or search literature that the declared *ex ante* needs of employers are critically assessed (OSBERG, 1995) yet the *ex post* skill profile of many employers in the UK does not often conform to these *ex ante* requirements. Even in the category of highly qualified labour in the R&D sector PEARSON (1995) argues that: '.. if the UK has a problem in terms of R&D skills then it is one of a lack of demand rather than a lack of supply.' (PEARSON, 1995, p.54).

That is not to suggest that employers are in some sense giving the wrong signals to the education and training sectors but rather that the true labour skill requirements of a particular

vacancy tend to be mis-specified due to a number of valid reasons from the employer's perspective. In other words there exist non-supply side causal factors of mismatch unemployment. Such a possibility is not fully addressed in standard theories of unemployment. Some employers may claim the existence of a skill shortage if they receive less applications for a vacancy than they would like, even though there may be more applicants than vacancies. However, this may be due to poor wages, conditions or inappropriate recruitment methods. These factors are considered below.

It has also been argued that competitive models have had limited success in explaining involuntary, cyclical or structural unemployment MANNING (1995). In addition, an analysis of skill shortage in Britain argues that there is no evidence of intensive shortage amongst craft and skilled manual labour, and indeed those occupations often cited as at risk of shortage (scientific and professional) exhibit some of the lowest levels of skill shortage (BOSWORTH, 1993). A study undertaken to update labour market information by the Tyneside and Durham Training and Enterprise Councils in 1995 found that fewer than 10% of over 500 employers considered lack of skills as a barrier to future company growth (JONES and PALEY, 1995). This suggests that greater emphasis should be given to factors affecting labour demand, and that supply side models and policy prescriptions are likely, by themselves, to be only partially effective at the local level.

There may be rigidities in the transmission of vacancy information which act to make vacancies harder to fill than they otherwise would be - particularly within the local labour market. It is argued here that the reasons for this are not simply to be found in a skill or spatial mismatch *per se*, at the local level, but rather the requirements of employers are not wholly understood by job-seekers, and the attributes and requirements of job-seekers, for example job contracts and the opportunity to use skills, are not wholly understood by employers. Hence, rather than a spatial or skills mismatch, the problem may also be one of presentation of skills on the part of the jobseekers and either mis-specification of, or fundamentally unattractive employment propositions from employers.

One example is that what the UK may be experiencing with persistent unemployment is a highly localised *hysteresis*. Not only has the capital base been eroded in many local labour market areas but the skills and experience base has also depreciated to a significant extent. A major problem in some of the UK's local labour markets is that many of the long term unemployed, and even those in low paid employment, are effectively excluded from mainstream society (GREEN, 1997). A possible explanation is that many of the long-term unemployed are not seriously considered by employers for jobs since it is presumed they lack certain characteristics which the employers consider important, such as skills and experience. However, if as argued by KEEP and MAYHEW, (1995) the skill level required by most employers for most vacancies in the economy *as a whole* is in fact low, then we need to consider whether employers are seeking other characteristics which are either not present and/or are very difficult to assess in most workers. Similarly in the US while high skill levels are required in *new* jobs (e.g. JOHNSTON and PACKER, 1987), when all jobs in the economy are considered, it has been argued that there is little evidence of major shifts in skill requirements and occupation across the labour market as a whole (National Centre on Education and the Economy, 1990; MISHEL and TEIXEIRA, 1991).

The purpose of this paper is therefore to discuss the importance of employer and vacancy characteristics and to present some evidence on the degree of influence that such factors have in contributing to vacancy duration and hence mismatch unemployment. The paper is structured as follows. The next section presents a theoretical analysis of mismatch unemployment and assesses the extent to which the causal factors have been examined in the economic literature. The third section details the specification of the model used to examine the influence of employer and job vacancy factors upon unemployment (vacancy duration) and outlines the

methodology used in the empirical research. Section four presents the results, both descriptive and analytical from the survey of employers. The final section examines the policy implications and presents the main conclusions.

II A THEORETICAL PERSPECTIVE OF MISMATCH UNEMPLOYMENT

Unemployment can be classified broadly as either equilibrium, where supply of and demand for labour are equal, or disequilibrium due to a shortfall in labour demand (for instance as a result of insufficient aggregate demand in the economy, or a wage level above that required for market clearing), and mismatch unemployment can be regarded as a subset of equilibrium unemployment. In other words, the underlying problem of mismatch unemployment is not one of inequality of overall supply and demand in the labour market, but of the failure to adjust and clear in specific sub-markets. The causes of labour market failure that are responsible for mismatch unemployment result from imperfections on both the supply (worker) and demand (employer) sides, and also from factors exogenous to the employer-jobseeker relationship. In any local labour market there may be unemployment due to both mismatch and the lack of demand.

We turn now to an examination of the components of mismatch which determine the level of labour market efficiency. There has been extensive research into the supply side causal factors of mismatch unemployment (HOLZER, 1988; MINFORD *et al*, 1990; HOLZER, 1991; LAYARD *et al*, 1991) highlighting mismatch in areas such as skill shortages, spatial mismatch due to geographical immobility, wage demands in specific markets and the search channels used by jobseekers. As mentioned above, it is argued here that supply side factors can be considered a subset of recruitment difficulties and that the importance of a number of specific non-supply side factors need to be examined in order to fully explain the extent of mismatch unemployment. Specifically, we classify these non-supply side factors into four principal areas: employer characteristics, the nature of vacancies, the recruitment practices used by employers and the nature of the relevant labour market.

Characteristics of employers such as size, sector and reputation may affect the attractiveness of vacancies to jobseekers. RUSSO *et al* (1996) look at the effect of employers' characteristics and practices on the distance between employees' place of residence and work, arguing that harder to fill vacancies will exhibit a greater distance. They find that large firms are associated with greater recruitment distance, whereas firms in the manufacturing sector are associated with a shorter distance. BOSWORTH (1993) examines the effect of certain firm-specific variables on skill shortages and finds that firms which are large, independently owned and in the hotel and catering sector are associated with higher levels of skill shortages whereas retail, distribution and business service firms experience fewer skill shortages. Additionally, studies in the US have shown that employers with a poor reputation amongst workers have been found to attract fewer applicants (FOMBRUN and SHANLEY, 1990; GATEWOOD *et al*, 1993).

Secondly, the nature of vacancies include areas such as requirements made by employers (for example education, experience and personal skills). A mis-specification of requirements can arise due to information asymmetry between employers and jobseekers (POLACHEK and YOON, 1987), leading to mismatch unemployment. VAN OURS and RIDDER (1993) find that vacancy duration is higher when high levels of education and experience are required. RUSSO *et al*. (1996) find that vacancies requiring high levels of qualifications and experience are associated with greater recruitment distance, while vacancies which require little or no qualifications and impose no age restriction are associated with a shorter distance. BOSWORTH (1993) finds that professional/management and part time vacancies are associated with high levels of skill shortages. CAMPBELL and BALDWIN (1993) argue that skill shortages are only a subset of recruitment difficulties in general, and investigate the role of employer and job vacancy factors in hard to fill vacancies. They find that vacancies offering unsociable hours and low wages experienced the highest levels of recruitment difficulty. Also examined is any discrimination by employers in areas of sex, race or employment status. COLLINSON *et al* (1990) found that married women are regarded as less likely to be committed to work than men, while research by GRIFFITH *et al* (1991) shows that long term

unemployment sends negative signals to potential employers. The type of contract offered with a vacancy may also be influential. CAMPBELL and BALDWIN (1993) for example find that unsocial hours were a factor in 21% of hard to fill vacancies. This is a growing source of recruitment difficulty as firms adopt increasingly flexible work patterns (HAKIM, 1993; WATSON, 1994).

The third principal category concerns the recruitment practices used by employers. The use of methods such as employment agencies is increasing by both employers and jobseekers (WATSON, 1994), hence there exists a requirement to assess the impact of their use. ROPER (1988) examines the effects of employers' recruitment practices on vacancy duration, and finds that firms which use more than one recruitment method, along with those which use informal recruitment methods and the Employment Service experience the shortest vacancy duration, while firms who advertise in national newspapers experience the longest duration. RUSSO *et al.* (1996) find that firms with efficient personnel departments and those who use informal interactive recruitment methods are associated with a larger recruitment distance. However, COLLINSON (1998) finds that formal recruitment practices adopted by employers were associated with a more accurate requirements specification which would imply a shorter vacancy duration.

Finally, the nature of the external macro-economic environment will determine factors which may influence the level of mismatch unemployment. Aggregate supply and demand within the local labour market can be measured directly through unemployment and vacancy rates, while other labour market characteristics may influence the degree of efficiency. These include volatility in the sectoral mix of the labour market resulting in skills mismatch, and inefficiency in matching technologies such as job centres and employment agencies (CROMB, 1993).

We can therefore offer the following hypotheses regarding the causal factors of mismatch unemployment (MMU).

$$H0: \quad MMU = f(s, wf, sc_w)$$

$$H1: \quad MMU = f(s, wf, sc_w, c_v, c_e, sc_e, ee)$$

where:

s = skills

wf = workforce flexibility

sc_w = search channels used by job seekers

c_v = vacancy characteristics

c_e = characteristics of employers

sc_e = search channels used by employers

ee = external environmental factors

The remainder of this paper focuses upon whether the vacancy characteristics, characteristics of employers, search channels used by employers, and external environmental factors are significant and deserve greater research and policy efforts.

III AN EMPIRICAL MODEL

(a) Model Specification

The model uses the duration of employers' last vacancy as the dependant variable. Previous studies have used similar measures of mismatch unemployment such as CAMPBELL and BALDWIN (1993) who examined the probability that a firm will experience a vacancy which was hard to fill, but did not look at the severity of this difficulty¹. Duration is measured in weeks for employers' most recently filled vacancy rather than an ongoing vacancy and as such is not influenced by the timing of the interview relative to the date the vacancy was first advertised. The independent variables are chosen to represent possible employer and job vacancy determinants of mismatch unemployment, plus a measure of the impact of the external environment as outlined in the previous section. These variables are expected to affect the difficulty of filling, and hence the duration, of the employers' most recent vacancy.

With respect to vacancy characteristics, we would expect a higher level of skill and expertise requirements to increase vacancy duration. The factors which would indicate a possible mis-specification of job requirements by the employer are the level of skills required for the vacancy, represented by the level of educational qualifications, (*QUALEVEL*), work experience, (*EXPERIENCE*), possession of professional and/or vocational qualifications, (*PROFQUAL*) and possession of good communication skills (*COMMUNIC*). In addition to these skill requirements, a requirements mismatch may arise due to discrimination by the employer in an area which may not be related to the applicant's ability to perform at work. Two variables have been included to measure such discrimination, whether the employer is willing to accept applicants of either gender, (*EITHER*), and the importance to the employer of applicants being either employed or unemployed for less than six months compared to those unemployed for over 6 months, (*EMP_STU*). It is expected that discrimination by sex and employment status will increase vacancy duration. Due to the low numbers of racial minorities in both the local labour markets and the sample (see below), this variable was omitted as a possible independent variable.

The vacancy characteristics which would imply a qualitative mismatch in terms of job offers which are unattractive to jobseekers are whether the contract is full-time, (*FTIME*), whether permanent, (*PERM*), whether the job involves shift work or unsocial hours, (*SHIFT_UN*) and the existence of benefits (such as profit related pay, company pension), (*BENEFITS*). It is expected that the offer of full-time and permanent contracts and employee benefits will reduce vacancy duration, whereas shift work and unsocial hours will be associated with an increase.

Variables are also included to represent vacancy characteristics which are likely to represent features of the relevant labour market. These are the salary offered, (*SALARY*), which does not represent the relative salary for the job offered but is an absolute figure and therefore more likely to be an indicator of the market rate for the type of job, and variables on the general types of job, i.e. whether the vacancy is manual, (*MAN_VAC*), skilled, (*SKIL_VAC*), or management, (*MGT_VAC*). Conventional labour market theory would suggest that vacancies with higher salaries and skilled and management positions should increase duration due to a shortage of skilled labour, and also as firms exhibit more rigorous selection procedures for senior positions.

¹ BOSWORTH (1993) measured both the existence and intensity of skill shortages, and while the study is valuable in its own right, the current paper aims to assess the impact of a range of possible determinants upon mismatch unemployment and therefore requires a direct and neutral measure of unemployment of which skill shortages are only a component. Vacancy duration provides a measure of the intensity of a hard to fill vacancy, unlike a dichotomous variable, providing us with a measure as to the extent of the recruitment difficulty.

The variables representing employer characteristics are whether manufacturing or service sector, (*MAN_IND*) so as to control for broad industry characteristics, whether independent or a subsidiary, (*INDEP*) as independent firms may be more flexible in their recruitment practices thus reducing duration, the percentage of existing employees who are part-time, (*PC_PT*), and the percentage of existing employees who are in skilled occupations, (*PC_SKILL*). These variables may have counteracting effects upon duration. In addition the reputation of the employer as an organisation will have an impact on the attractiveness of a vacancy, this is represented by the presence of trade unions in the workplace, (*UNION*), and the provision of child care facilities, (*CRECHE*). It is expected that both union presence and child care facilities will reduce vacancy duration (although due to the low numbers in the sample providing creche facilities this variable was later omitted from the model). Finally, the size of the firm by employee numbers, (*N_EMPS*) is included. Larger firms may have more formalised recruitment processes which may increase the accuracy of job specifications (although this should be controlled for by the existence of a personnel department), reducing duration, but may also be bound by corporate rigidities which slow down recruitment. Similarly larger firms may be more attractive to jobseekers by way of higher salaries or job security, thus reducing duration, however they could also be more strict in their specification of qualifications which may increase duration.

An important aspect of mismatch as mentioned earlier are the recruitment practices used by employers which, if ineffective, may result in suitable job seekers being unaware of vacancies. The variables chosen to represent employers' recruitment practices are whether they recruit through a job centre, (*JOB_CENT*), employment agency, (*AGENCIES*), the press, (*PRESS*), word of mouth, (*W_O_MOUTH*), speculative applications, (*SPEC*), and whether they advertise UK wide as opposed to locally, (*UK*). We are open minded as to the expected direction of these variables. It is possible recruitment agencies may be used because the employer may expect or already have experienced recruitment difficulties, and such vacancies may offer a shorter term contract than those advertised directly, both of which may increase vacancy duration. In addition there are three variables chosen to represent the internal recruitment practices of employers, these are the number of interviews held for the job, (*INTERVS*) which is expected to increase vacancy duration, the existence of a personnel department, (*PER_DEPT*) which is expected to decrease duration as vacancies may be better specified and the recruitment process carried out more effectively. The overall level of autonomy the employer has in the recruitment process (*OV_AUTON*), which will be total for independent firms and measured on a scale for subsidiaries, is expected to decrease duration.

The level of labour demand in the external environment is controlled for through the separate analysis of the two different local labour markets, the characteristics of which are outlined in the following section.

Hence the full equation is:

$$\text{Vacancy Duration} = f(\text{QUALEVEL}, \text{EXPERIEN}, \text{PROF_QUA}, \text{COMMUNIC}, \text{EITHER}, \\ \text{EMP_STU}, \text{PERM}, \text{SHIFT_UN}, \text{SALARY}, \text{FTIME}, \text{BENEFITS}, \\ \text{MAN_VAC}, \text{SKIL_VAC}, \text{MGT_VAC}; \\ \text{MAN_IND}, \text{INDEP}, \text{PC_PT}, \text{PC_SKIL}, \text{UNION}, \text{N_EMPS}; \\ \text{JOB_CENT}, \text{AGENCIES}, \text{PRESS}, \text{W_O_MOUT}, \text{SPEC}, \text{UK}, \text{INTERVS}, \\ \text{PER_DEPT}, \text{OV_AUTON})$$

Before considering the results, the following section outlines the survey itself.

(b) Survey

The areas covered by the surveys are the contiguous Edinburgh (ETTWA) and Bathgate travel-to-work-areas (BTTWA), situated in east central Scotland. The ETTWA represents an urban labour market with a large financial and services employment base and the BTTWA covers both rural and urban areas and has a relatively larger manufacturing base. Unemployment rates at the time of the survey were 4.9% in the ETTWA and 6.2% in the BTTWA.

The Lothian Business Index and the Lothian Region Development Authority data set provided us with an extensive database of employers covering both TTWAs. The firms were in non-retailing industries and were stratified by SIC. A random sample of 20% in each industrial sector was selected from each TTWA. Interview requests were made and a total of 126 interviews were conducted between October 1996 and February 1997. The sample consisted of 77 firms from the ETTWA and 49 from the BTTWA, representing 15% and 22% of the database for each TTWA respectively.

Data were collected by means of a structured questionnaire administered via a series of face-to-face interviews. Employers were questioned on firm type and occupational structure, the nature of their most recently filled vacancy (e.g. job type, contract, search channels used, qualifications required) and the duration of that vacancy. The next section presents the broad descriptive statistics of the survey and then presents the result of the testing the model set out above.

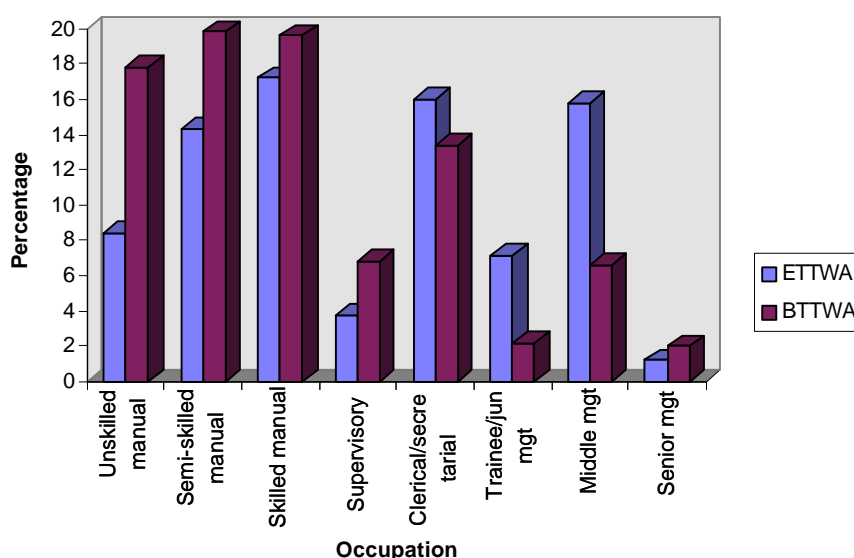
IV RESULTS

(a) Descriptive Statistics

The Nature of the Most Recent Vacancy

Employers were asked to detail the nature of their last vacancy in terms of type, fill period, wage level and contract nature (permanent, temporary, full-time, part-time). There were significant differences between the two TTWA's (as expected) in all these aspects of the employers' last vacancy. The results are illustrated in Figure 1 below.

FIGURE 1 OCCUPATIONAL BREAKDOWN OF LAST VACANCY ADVERTISED



In the BTTWA 58% of jobs advertised were for unskilled, semi-skilled and skilled occupations compared with 41% in Edinburgh, reflecting the industrial nature of the Bathgate economy as compared with the more predominant white-collar nature of the Edinburgh labour market. In the BTTWA 20% of vacancies were filled within a week - compared with 2% in Edinburgh and this may be indicative of the relative high proportion of jobs advertised by word of mouth in this area. By 4 weeks 72% of the BTTWA vacancies were filled and only 2% were unfilled within 12 weeks.

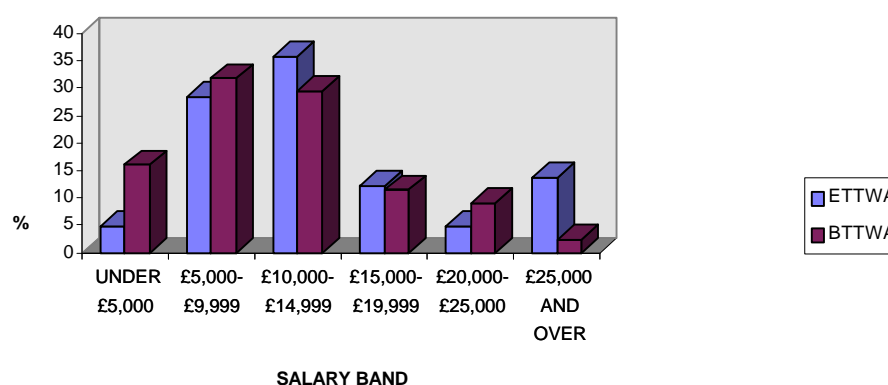
In the ETTWA the majority of vacancies were filled within 4 weeks and by twelve weeks 9% were unfilled - significantly more than in the BTTWA. The reasons for the hard to fill vacancies are explored below. However, taken together these data suggest there is no widespread problem in these two TTWA's for employers in filling most vacant posts. Hence it is difficult to be other than sceptical about the argument that there is a serious skill shortage in these areas since the vacancy types covered many occupations at many levels. This is particularly the case when we consider that in the ETTWA 53% of vacancies arose through quits and 42% through expansion. The corresponding proportions for the BTTWA were 44% and 33%. The remaining reason for a vacancy was given as 'other' which includes termination, retirement and unspecified reasons.

In terms of employment contracts only 15% of vacancies advertised in the ETTWA were for temporary posts but in the BTTWA this figure was 31% and roughly half of these arose from the need for extra staff to meet increased seasonal or short-term demand. This is an important aspect of the flexibility employers are increasingly seeking in both labour markets. Apart from the flexibility such contracts offer employers they can also act to reduce non-wage employment costs such as sickness pay, training, redundancy and other aspects of the social cost to employers of full time contracts. This aspect of mismatch has little to do with skill shortage in these local labour markets, but is linked to the demand side being qualitatively different in its requirements from the supply side. A solution involving skills training is therefore unlikely to address this problem in the case of the long-term or short-term unemployed.

In the ETTWA 85% of the vacancies were for full time and 15% for part time employment, and in the BTTWA the respective figures were 80% and 20%. There were, as expected, very significant differences in the benefits associated with the vacancies in the two TTWA's, reflecting the nature of the vacancies in terms of the proportion in each area which were unskilled/skilled and professional/managerial.

This is clear from Figure 2 below, where the ETTWA modal salary was between 10,000 and 14,999, whereas in the BTTWA this was 5,000 to 9,999. A salary of under 5,000 was offered in 5% of vacancies in the ETTWA, but in 16% of vacancies in the BTTWA. At the opposite end of the scale, 14 % of vacancies in ETTWA commanded a salary of over 25,000, whereas the corresponding figure in BTTWA was only 2%. In nearly 90% of the vacancies in the latter area the wage offer was less than average earnings for the local economy - indeed, nearly 50% of the BTTWA vacancies offered wage levels which would have required some form of State income support if the person taken on was a head of a household with no other income earners.

FIGURE 2 PERCENTAGE OF VACANCIES FOR EACH ANNUAL SALARY BAND



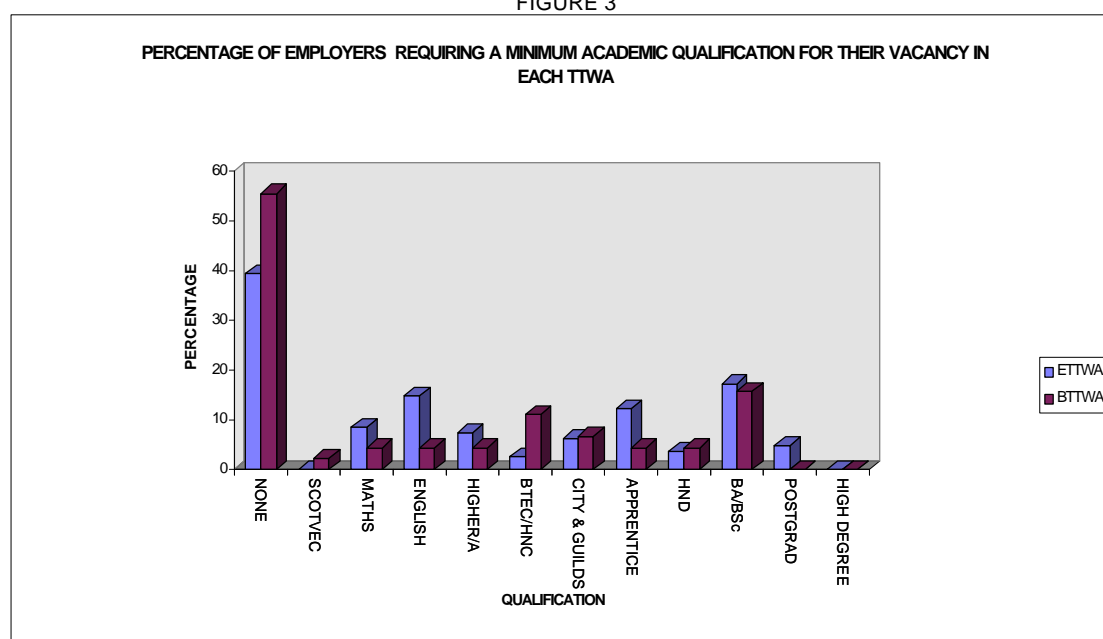
A very large proportion of the long-term unemployed are in this position therefore their reticence towards temporary work should not be surprising. Even in the ETTWA over one-third of the vacancies fell into this category. The wage levels offered by most of these vacancies are in fact more consistent with those to be found in most unskilled jobs in the UK. When we consider the skill requirements for these posts this becomes clear.

Skill Requirements of the Most Recent Vacancy

Employers were asked to divide skill requirements into two areas: those skills which are recognised through some form of certification and are mainly of the traditional, practical type and those wider personal skills which are often attested to as being a particular problem such as those listed above (teamworking, problem solving, communication, etc.). In the case of the former there is little evidence that a shortage actually exists in either of the TTWA's. There is however some evidence there may well be a degree of skill mismatch in the case of the wider personal skills although the interpretation of this is ambiguous in practice for a number of reasons discussed below.

Figure 3 below shows that in both areas, a large share of vacancies required no recognised academic or other qualifications (40% in the ETTWA and 56% in the BTTWA) which largely explains the wage structure in the vacancies available. It is noteworthy however that just under one-fifth of the vacancies required degree level candidates. Between these two extremes of the skills spectrum very few of the vacancies even required the most basic formal qualifications in numeracy and communication ability. It is also notable that a technical qualification (BTEC/HNC) was only required by 11% of the vacancies in the BTTWA and only by 3% of those in the ETTWA. In addition, SCOTVEC Certificates/GNVQ's were stated to be minimum requirements for only 2% of the vacancies in the BTTWA and for none at all in the ETTWA.

FIGURE 3



These latter figures are particularly important since it is these qualifications which are supposed to deliver what employers want. Quite clearly, the employers in this sample have yet to be convinced of the value of such qualifications (especially the SCOTVEC qualification) and we must also consider the possibility that, for most vacancies arising in these labour markets, they are quite unnecessary in any case. Indeed it would appear that a training need is not really expressing itself at all in these areas, yet over 50% of the Local Enterprise Company's budget is devoted to training. It may therefore be the case that employers are seeking other skills which are not normally associated with recognised academic or technical qualifications. This is considered below.

Employers were asked to state the personal characteristics they were looking for in a job applicant, the results are shown in Table 1 below.

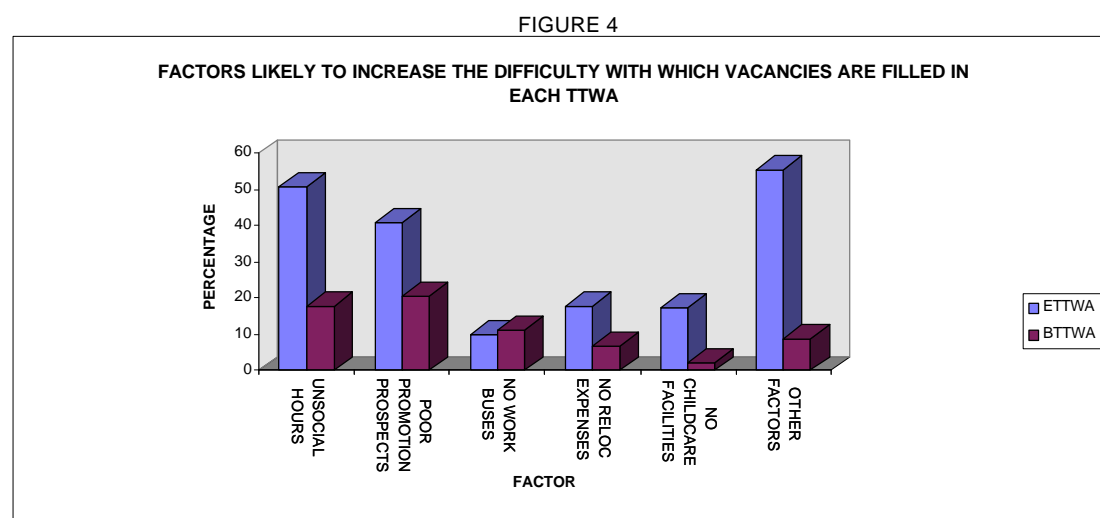
Table 1 Proportion of Employer Sample Stressing ‘Other’ Skills

	ETTWA	BTTWA
Teamworking ability	98%	91%
Communication skills	95%	89%
Time keeping	95%	89%
Company commitment	89%	84%
Problem solving ability	67%	71%
Business awareness	54%	41%
Leadership qualities	30%	28%
Current job status	32%	18%

The majority of skills stated by employers are qualities that most applicants could reasonably be expected to possess. A possible exception is the ‘Employed/unemployed for less than 6 months’ category, which relates to the long-term unemployed specifically and suggests a significant degree of resistance (32% in the ETTWA and 18% in the BTTWA) by firms towards employing someone who has been unemployed for six months or more. The concern here, from a policy point of view, is that this resistance seems to be independent of the recognised and other skills of the long-term unemployed. In other words, even an experienced and well qualified person who has been out of work for 6 months or more faces a significant barrier in managing to be even considered for a vacancy. If this is a more widespread problem than indicated in this survey then it also suggests that providing training places, as opposed to work placements, are of limited value to the long-term unemployed.

Hard to fill Vacancies

Employers were asked to identify what they considered to be the main reasons why some vacancies were hard to fill. These categories were not mutually exclusive, most employers had more than one reason why they believed a vacancy was hard to fill. The results are summarised in Figure 4 below.



The largest proportion of employers in the sample identified unsocial hours, poor promotion prospects and 'other' factors as the main barriers to recruitment in these vacancies. Over 70% of the ETTWA employer sample who reported 'other' reasons cited a shortage of applicants with the appropriate skills, but only 10% of the BTTWA employer sample did so. This difference may be explained to some extent by the greater availability of better jobs in the ETTWA.

(c) Regression Results

As the dependent variable, duration (in weeks) taken to fill last vacancy, was a continuous variable, multiple regression was used to analyse the effects of the independent variables discussed above. The results are presented in Table 2 below.

Table 2 Results of Multiple Regression of Vacancy Duration by Employer Characteristics

Variable	ETTWA		BTTWA	
	Coefficient	(t-value)	Coefficient	(t-value)
(Constant)	8.768	0.865	10.878	1.626
QUALEVEL	-0.052	-0.033	-0.270	-0.186
EXPERIEN	-3.889	-0.960	-1.341	-0.346
PROF_QUA	-6.677	-2.547**	-4.758	-1.314
COMMUNIC	-7.020	-1.533	6.295	1.202
EITHER	4.363	1.872*	-0.797	-0.401
EMP_STU	-1.999	-0.976	1.379	0.538
PERM	-2.813	-0.784	-0.342	-0.131
SHIFT_UN	-0.653	-0.325	2.491	1.067
SALARY	2.867	2.703**	-1.069	-0.367
FTIME	-8.957	-2.893***	11.418	1.245
BENEFITS	-1.441	-0.618	0.410	0.143
MAN_VAC	-1.539	-0.516	-0.308	-0.096
SKIL_VAC	0.872	0.366	7.932	2.293*
MGT_VAC	-2.655	-0.992	15.940	1.826
MAN_IND	-1.788	-0.736	9.284	2.133*
INDEP	-1.314	-0.656	2.400	0.924
PC_PT	-0.064	-1.388	0.140	2.167*
PC_SKIL	0.088	2.560**	-0.075	-1.606
UNION	-3.496	-1.574	-8.065	-2.305*
N_EMPS	-0.001	-0.298	0.006	2.389*
JOB_CENT	2.984	1.091	-2.563	-0.985
AGENCIES	11.373	4.196***	-6.865	-1.159
PRESS	3.332	1.276	-5.332	-1.270
W_O_MOUT	-0.519	-0.187	-1.124	-0.352
SPEC	2.630	0.688	-5.347	-1.250
UK	5.468	1.754*	12.867	3.149**
INTERVS	2.784	1.807*	-2.237	-1.056
PER_DEPT	2.159	0.995	3.097	1.422
OV_AUTON	-2.029	-1.305	-5.543	-2.146*

*** significant at 1% level

** significant at 5% level

* significant at 10% level

Looking at vacancy characteristics, in terms of requirements specification, only one variable, (*PROF_QUAL*), had a significant (negative) effect on unemployment duration. This implies that mis-specification of requirements in terms of excessive skill levels are not a factor in increasing vacancy duration in either TTWA. In the ETTWA, a gender blind attitude to recruitment, (*EITHER*), had a significant positive effect on vacancy duration. This may be because employers who specify a gender may have a more focused picture of their requirements, which could speed up the recruitment process. In addition, employers attitudes towards the short versus long term unemployed (*EMP_STU*) was insignificant at 10% for both TTWAs. These results imply that mis-specification in terms of discrimination is also unimportant. However, the attractiveness of the vacancy does appear to have some effect. An offer of a full time contract (*FTIME*) is highly significant in reducing vacancy duration in the ETTWA, implying that such positions are easier to fill due to a greater willingness for unemployed workers to undertake full time work, in other words a prevalence of part time work represents a qualitative mismatch of requirements resulting in equilibrium unemployment. Salary level (*SALARY*) has a significant positive effect on vacancy duration in the ETTWA, this may reflect a skill shortage amongst the higher paid professions or may be indicative of stricter recruitment practices at such levels, or the longer notice that such job seekers must give to their current employers. We would argue that vacancies which pay higher salaries are paying for human capital and are therefore filling positions of responsibility. The cost involved in an incorrect appointment for such a vacancy in terms of both salary paid and negative impact on firm performance would be far higher than for a lower level vacancy, hence firms will spend longer selecting an appropriate high level candidate. Further evidence of this is provided in the BTTWA where skilled vacancies are significant in increasing vacancy duration.

There are notable differences between the two TTWAs in terms of the influence of employer characteristics on vacancy duration. In the BTTWA the firm size (*N_EMPS*), percentage of part time employees (*PC_PT*) and industrial sector (*MAN_IND*) are all positively significant. Vacancy duration increases significantly with a greater number of employees possibly because large firms may operate more formalised and bureaucratic recruitment practices which will extend the time required to fill vacancies. In the ETTWA, firms with a greater percentage of skilled employees (*PC_SKIL*) were associated with longer vacancy duration. Assuming such firms recruit a similar proportion of skilled workers, this may reflect either a shortage of skilled workers, or the adoption by employers of more stringent recruitment practices for skilled than for non skilled vacancies, whether justified or not. In addition, employers with a trade union presence in the workforce (*UNION*) experienced significantly shorter vacancy duration times in the BTTWA. This may simply be the result of trade unions pushing up wages within the firm and hence increasing the attractiveness of vacancies. Alternatively it may be that a union presence increases the attraction of vacancies due to other factors such as better conditions of employment and/or that a union presence indicates an employer who enjoys a favourable reputation for employee welfare in other areas. It is also notable that this union effect is only present in the BTTWA, where there is a greater prevalence of manufacturing industry, with an associated traditionally strong union presence.

Certain types of recruitment channels used also significantly increase vacancy duration. The use of recruitment agencies (*AGENCIES*) and the number of interviews (*INTERVIEWS*) increase duration in the ETTWA, and advertising the vacancy UK wide (*UK*) increases duration for both TTWAs. All of these recruitment practices could be seen as a reaction by the employer to failure to recruit by less costly methods, implying that either there is insufficient supply of labour locally to meet demand, or that other recruitment channels such as Job Centres and the local press are inefficient job matching technologies. Another possibility is that it is the more highly skilled, professional vacancies that tend to be filled through agencies, that require a more thorough interview process and are advertised in the national press. What we may be observing here is some form of professional effect, similar to the effect of a high salary, where skilled vacancies take longer to fill as discussed above. The overall autonomy

that an employer has in the recruitment process (*OV_AUTON*) is significant in decreasing vacancy duration. Employers who do not have formal recruitment procedures dictated by parent companies may be more flexible in the implementation of informal recruitment methods and in shortening conventional procedures.

The results from the regression equations do not imply that a skill requirements mis-specification is the principal determinant of increased vacancy duration for either TTWA. However they do indicate that there are other factors related to employer practices and characteristics which have a significant effect on duration, particularly the type of firm and the methods of recruitment practices employed.

V POLICY IMPLICATIONS AND CONCLUSIONS

As suggested in the introduction, local policy approaches towards unemployment in the UK have largely been supply-side inspired. These have ranged from a rapid succession of mass training schemes to liberalisation of the labour market and the introduction of stricter welfare and unemployment benefit rules. The emphasis upon these 'passive' deregulation solutions have been criticised for poor design, poor funding and lack of focus. The UK's lack of emphasis on active policy spending is in sharp contrast to Ireland, Holland, Italy, Germany and Belgium but more in line with policy practice in France TOWERS (1994).

A fundamental problem with the UK approach is that it presupposes the demand for labour in the economy is buoyant enough to absorb the unemployed into jobs if only the rigidities on the supply side were removed, and increasing the skills and particularly the flexibility of workers in general would reduce the upward pressure on wage levels of skilled workers. However in the case of the two local labour markets in the present study there is no evidence of wage pressure for skilled workers since the demand for them is low. The regression results for unemployment duration indicate that most of the requirements of employers and their terms of employment are not significant in increasing duration, so it would appear that there is limited evidence that demand side problems are a factor in mismatch unemployment. However, given the numbers of employers who, for instance, specify that an employee must be short term unemployed or currently employed in order to be considered for a post, combined with the lack of influence of that attitude on duration, there is little evidence of a supply side recruitment problem. What is often argued by policy makers is that there exists a shortage of skilled labour. This is also not supported by the results from this study. For example, in the ETTWA vacancies for which professional/vocational qualifications are required take less time to fill than those for which no such qualifications are required, which points to a more plentiful supply of skilled than unskilled labour given the terms and conditions of the jobs. This combined with the fact that very few firms state a requirement for such skills implies that the supply of labour exceeds the demand in skilled occupations in such areas.

Even in the case of the UK's active policies, the degree of success is not particularly strong in terms of getting people back into work, particularly the long-term unemployed (FAIRLEY, 1996). There may be a positive feedback from supply-side flexibility into increased firm competitiveness and hence increased product (and labour) demand, although there is limited evidence for this as yet with regard to training for the unemployed. On the other hand training for those already in employment is essential for firm competitiveness.

In addition certain types of recruitment methods used by employers have the effect of lengthening vacancy duration. After controlling for certain types of vacancies, the use of recruitment methods such as national advertising and specialist recruitment agencies implies that firms believe that they will not fill vacancies using quicker and cheaper methods. There may well be a role for training agencies to address this issue in relation to the job specifications which employers draw up since this may lead to an improvement in the information content of vacancies which are advertised through the media and JobCentre network. It may also be beneficial to examine the efficiency of local job matching agencies such as Job Centres to ensure that they are providing an accurate and comprehensive information service, and that such agencies are being utilised to their full potential by both employers and jobseekers.

Recent work in the United States argues that a policy emphasis towards minimising unemployment spells through work, as opposed to training, strongly maintains the re-employment wage rate (SENINGER, 1997; La LONDE, 1995). Given the screening out effect on the long-term unemployed suggested in this paper it would seem both sensible and realistic to shift the emphasis away from training and towards job placement, although there will remain some people who will require training in basic and/or higher skills to enter the job market at an

appropriate level. This is more in line with the approach being increasingly adopted in Germany and Sweden and has the distinct advantage of reducing both the stigma associated with unemployment and the rate of depreciation of work experience skills which training programmes seem unable to do. This is particularly important if employers themselves do not place significant value on the training programmes so far provided or on the qualifications they generate such as SCOTVECs and our evidence suggests that this is the case.

One approach currently suggested is that by SIMMONDS and EMMERICH (1996) which argues that unemployment in local communities can be addressed directly through the creation of intermediate labour markets (ILM's). These ILM's essentially represent a transient stopover between unemployment and re-employment in so-called 'social economy organisations' providing proper wages in sustainable jobs which are of direct benefit to the local community in which the jobs are created. The EU Commission (1995) has identified 17 areas of work which fit smoothly into this concept ranging from the provision of home services to tourism. A particular advantage of the ILM approach is that it can be fine tuned to the type of jobs a local community actually wants. This is important since, as is shown in this paper, even neighbouring TTWAs differ considerably from each other. This may not always be reflected in the training and other intervention policies adopted by national or regional development agencies whose policies cover a number of TTWA's. Such a strategy would require funding arrangements quite different from past conventions operated within the UK for labour market programmes (PRIESTLEY, 1997). For example, specifically in the BTTWA, vacancy duration is significantly longer amongst larger employers, employers in the manufacturing sector and those with a greater percentage of part time employees. The BTTWA has a large electronics manufacturing base which provides many unskilled jobs, skill shortage is not a problem in these labour markets. Indeed the authors have encountered cases where applicants for vacancies within this sector have been unsuccessful due to them being overqualified. What may be experienced here could be mismatch unemployment resulting from complex, and often inappropriate, recruitment practices by the large manufacturing employers, together with a prevalence of unattractive part time vacancies. Areas such as the BTTWA may therefore benefit from a shift from previous local economic development policies, which have promoted an arguably ill-matched combination of skills training together with attracting large overseas manufacturing employers who offer many unskilled vacancies, towards a policy of promoting the indigenous SME sector in areas where the added value of the product/service is higher, thereby increasing the demand for skilled labour and reducing mismatch unemployment.

An employment policy focusing on the demand side of the labour market at both the macroeconomic and local level of the economy is an alternative which has received limited support in the UK in recent years but is one which, increasingly, may well be a significant long term solution to unemployment. Past policies have essentially been successful in shifting out the labour supply curve, particularly in the case of female workers, but this has been coupled with a definite reduction in the demand for male labour. Even in the case of female workers whose share of jobs has increased in the UK the modal employment contract has been and continues to mainly be of a temporary and/or part-time nature.

In conclusion, while supply side policies such as skills training and incentives to reduce welfare dependence remain important, these will be more effective if implemented in conjunction with complementary non-supply side policies. These should not be limited to measures designed to increase aggregate demand at the macro level, but should include more specific local and regional policies to ensure a qualitative match of the requirements of employers and jobseekers. Failure to implement such parallel policies may only result in a surplus or underutilisation of skilled labour.

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