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ESTIMATING THE WILLINGNESS TO MOVE WITHIN
GREAT BRITAIN: IMPORTANCE AND IMPLICATIONS

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Estimating the willingness to move within Great Britain: Importance and implications

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Abstract

The migration of labour is a mechanism through which local and regional labour market differentials can be reduced. It is likely that this mechanism will assume greater importance in the future so long as government assistance to deprived areas continues to decline, firms remain relatively immobile and European integration proceeds. However, Britons are thought to have relatively low migration rates, especially in comparison to their North American counterparts. Therefore in this paper, microdata are examined to establish the characteristics of individuals who are least willing to move and to compare the willingness to move of Britons with those of people from other countries. It is found that individuals from only a few other countries, including the US, are more willing to move within their own borders and that the willingness to move of Britons is higher than those of residents of several EU member states. Personal characteristics are found to be important determinants of the willingness to move, with the lowest educated the least willing and recent migrants the most willing to move. However, only small differences are found across spatial areas within Britain suggesting that there is not a great desire to move from the less prosperous parts of the country. The paper concludes with a discussion of the policy implications of the findings.

Keywords: Migration; Local and regional labour markets.

JEL-Codes: J61, R23.

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1. Introduction

According to the claimant count measure, unemployment in the United Kingdom (UK) recently fell to its lowest level for 27 years. Allied to the fact that many commentators have suggested that the North-South divide, especially in terms of unemployment, has narrowed (e.g. Martin, 1997), one would expect the issue of regional inequalities to have dropped down the economic policy agenda. This is a view that appears to have been shared by recent UK governments since the amount of regional assistance to deprived areas has been substantially reduced over the past two decades (Taylor and Wren, 1997). However, the claimant count unemployment rate is a very narrow economic indicator and hides a number of important differences including the persistence of local unemployment blackspots, low employment rates in some regions and the widening of regional income and earnings differentials. These facts imply that there remains a need for either a market or government response to reduce spatial labour market inequalities, otherwise the labour market will be inefficient (Borjas, 2001). Therefore, given the scaling down of regional policy and the reluctance of firms to take advantage of lower labour costs in other areas, it is important for labour migration to increase if these differentials are to be reduced.

However, it is often argued (e.g. Pencavel 1994; Eichengreen, 1993; Hughes and McCormick, 1987) that the level of internal migration in the UK and other European countries is too low, especially when compared to the United States (US). Furthermore, labour market flexibility is likely to become ever more important as European monetary increases (Eichengreen, 1993). Therefore in this paper, the factor that underlies an individual's migration decision i.e. their willingness to move (WTM) is examined. As well as focusing on the effect that different socio-economic

characteristics have on an individual's WTM, the paper also compares the WTM of Britons with those of individuals from other countries. The questions that are analysed in the study also enable us to examine the attitudes of individuals towards moving either locally or longer distances, so the effect of characteristics on prospective moves of varying distances can thus be explored.

The remainder of the paper is structured as follows. Section 2 contains a discussion of the nature of the spatial labour market differences that have been present in the UK in recent times. The mechanisms by which these inequalities can be reduced or removed are then analysed in Section 3. The data sets to be used in the econometric analysis are introduced in Section 4, whilst the results can be found in Sections 5 and 6. The former contains estimates of the willingness of Britons to move, whilst in the latter, the results for Great Britain and 22 other countries are reported. Section 7 summarises the main findings of the paper and discusses its policy implications.

2. Regional economic problems in the UK

Spatial economic inequalities were present in the UK for the majority of the twentieth century. For example, Scott (2003) reports that in 1951 the unemployment rate in Wales was over three times as high as it was in the South East, whilst Gross Domestic Product (GDP) *per capita* in Wales was just 84 per cent of the UK average. Wide regional disparities continued to be observed at the end of the 1970s despite the relatively generous regional aid that had been allocated to deprived areas in the preceding decades. There was also clear evidence of a north-south divide in earnings and unemployment during the 1980s, even after controlling for socio-economic and demographic factors (Blackaby and Manning, 1990; Blackaby and Murphy, 1995).

However, a convergence in regional unemployment rates has occurred since the early 1990s.¹

The narrowing of regional unemployment rates is clearly demonstrated by the information presented in Table 1. In particular, the statistics indicate that regional unemployment differences remained relatively small throughout the 1990s. Even when levels of unemployment rose during the mid-1990s, unemployment rates in each of the regions remained within four percentage points of the UK average. By 2000, the UK claimant count unemployment rate had fallen to 3.7 per cent, with only the North East and Northern Ireland experiencing an unemployment rate in excess of 5 per cent. The duration of unemployment spells also converged across regions during the 1990s. Most notably, the percentage of claimants who were unemployed for more than one year in Northern Ireland was substantially lower, whilst in general, the remainder of the regions were clustered around the UK average.

Unemployment as a proportion of vacancies was also much lower in all regions in 2000 than in either 1990 or 1995. The North East continues to suffer from a low number of vacancies relative to unemployment but the highest unemployment-vacancies ratio, in both 1995 and 2000, could be found in London. This is in sharp contrast to the situation observed in other Southern regions, notably the South East and the South West, where notified vacancies amounted to well over 30 per cent of the stock of unemployed in 2000.

¹ Martin (1997) discusses the evolution of regional unemployment rates in the UK since the 1960s and the reduction in the differentials that took place during the recession of the early 1990s.

The unemployment situation at the local level also appears to have improved, with the incidence of Local Authorities (LAs) or Unitary Authorities (UAs) with unemployment rates in excess of 8 per cent falling dramatically during the second half of the decade, from 41.7 per cent of the 434 LAs/UAs in the UK in 1995 to just 5.3 per cent in 2000. Despite these encouraging signs, some unemployment blackspots remain, especially in Northern Ireland and also in some parts of London (Webster, 2000). This can be seen from the standard deviation in unemployment rates within Government Office Regions (GORs). Furthermore, the traditional north-south divide appears to re-emerge when these statistics are examined since the variation in unemployment rates in each of the northern regions is higher than it is in all of the southern regions, with the exception of London.

However, the relatively encouraging unemployment picture is not repeated when earnings and income are considered in Table 2. The ‘peripheral’ or northern regions lag well behind those in the south in terms of average earnings, with these differentials tending to increase during the 1990s. London stands out as the region with the highest earners, but earnings are also relatively high in the surrounding South East and Eastern regions. Cameron and Muellbauer (2000) argue that the ONS figures are even an underestimate of the true earnings differential. However, Duranton and Monastiriotis (2002) suggest that the increase in the aggregate earnings differential between London and the South East and the remainder of the UK between 1982 and 1997 was due to a convergence in the rate of return to education across the country. They find that early on in the period, workers in London and the South East received lower returns to education than their counterparts in other parts of the country but by 1997 these returns were more or less equal. They conclude that the aggregate earnings

differential is mainly due to differences in educational attainment and industrial structure between London and the South East and the rest of the country.² Nevertheless, the regional earnings differentials are very noticeable, although it should of course be acknowledged that prices, and house prices in particular, are much higher in London and the South East. Hence cost of living differences could remove a significant proportion of the earnings advantage enjoyed by some of those living in London and the South East.

Information presented in Table 2 further indicates that neither is the employment situation as healthy as the claimant count unemployment figures would suggest. This is because the claimant count does not capture hidden unemployment and inactivity, which are particularly high in some of the peripheral regions. With large numbers of unemployment benefit claimants transferring to invalidity benefit, the claimant count figures can grossly underestimate the 'real' level of unemployment in some areas (Fothergill, 2001). It can be seen from Table 2 that employment rates are particularly low in regions such as the North East, Northern Ireland and Wales, where less than 70 per cent of working age individuals were in employment in 2000, compared to over 80 per cent in the South East.

Due to the large number of individuals claiming benefits in some regions and hence differences in the proportion of tax payers, *per capita* disposable household income may be a more appropriate indicator with which to consider regional income differentials. When this variable is expressed as a percentage of the national average,

² Rice (2002) finds significant regional variation in post-compulsory education participation rates and human capital attainment. She attributes this to differences in underlying attitudes towards further education and training across regions.

it is lower than the equivalent earnings figure for some regions, most notably the North East, where disposable household income is less than 83 per cent of the UK figure. In addition, disposable household income in Scotland and the South West fell relative to the national average during the 1990s. In contrast with the variation in unemployment at the local level, the greatest dispersion in disposable household income is seen in London and the South East, with a relatively low standard deviation observed in all of the peripheral regions apart from Northern Ireland, which is the result of Belfast being the sole area in the province that is relatively prosperous. Linacre (2002) also reports substantial variation in the composition of household income across the country. For example, the compensation of employees accounts for 62 per cent and benefits only 6 per cent of household income in Swindon, compared to 47 per cent and 17 per cent in the North of Northern Ireland and 41 per cent and 10 per cent in South West Wales respectively.

Regional income inequality is even more acute if GDP differentials are examined. For example, GDP *per capita* was 77.3 per cent, 77.5 per cent and 80.5 per cent of the UK average in 1999 in the North East, Northern Ireland and Wales respectively. The existence of deprived areas in the UK is further highlighted by the fact that several areas are now eligible for Objective 1 funding as a consequence of their GDP *per capita* being less than 75 per cent of the European Union (EU) average. From 2000 onwards, the areas that are able to attract this type of funding are Merseyside, South Yorkshire, West Wales and the Valleys, Cornwall and the Isles of Scilly.

3. Reducing regional inequalities

The principle market response for correcting local and regional economic disparities is migration. The migration that takes place could either apply to that of labour and/or of firms. Classical economic theory would predict that this mechanism should be effective in reducing regional imbalances. A movement of labour from a deprived to prosperous area reduces labour supply in the former and increases it in the latter, thereby reducing wage and unemployment differentials. Alternatively, a movement of firms in the opposite direction would cause labour demand to increase in the deprived area and hence raising relative wages and employment in the deprived area.

These predictions also hold in a dynamic setting, as shown by Möller (2001), who develops a theoretical framework to analyse regional adjustment dynamics. The dynamic wage setting and unemployment equations for region r that Möller (2001) derives are:

$$\dot{w}_r = -\eta_1(w_r - p_r) + \eta_1(a_r + g_r) - \eta_2 u_r - \eta_3 q_r + x_r^w$$

$$\dot{u}_r = -(\lambda_1 + v_1)u_r + (\lambda_2 + v_3)(w_r - p_r) + v_1 l_r - v_2 y_r - \xi_1 q_r + (v_2 - v_3)a_r + \lambda_2 g_r + x_r^u$$

where w_r is the nominal wage, p_r is the price index for tradable production goods, a_r is total factor productivity, g_r is the price gap between the production and consumption wage, y_r is production, u_r is the unemployment rate, q_r is the participation rate and l_r is the potential labour supply. These are all endogenous variables, whereas x_r^w and x_r^u represent the influence of exogenous structural variables on wage setting and unemployment. The two equations refer to growth rates and can be approximated by log differences. It can be seen that the dynamic development of unemployment in region r depends positively on labour supply and

negatively on participation, whilst wage rate dynamics are negatively related to both unemployment and participation. This implies that a net out-migration of labour from a deprived region will raise relative wages and reduce unemployment.

However, the real world is far more complicated than the classical models would predict, mainly because they are based on several restrictive assumptions (Armstrong and Taylor, 2000). These include perfect competition, no barriers to mobility, perfect information, homogeneous factors of production and perfectly flexible factor prices. There are therefore many reasons to believe why both labour and capital will be relatively immobile across space. In particular, firms do not appear to move to areas where labour is cheaper (Armstrong and Taylor, 2000). This can be explained by the strong geographical inertia displayed by firms as a result of location specific input-output linkages and key personnel.

Individuals may also be unwilling to move from one region to another even if other areas offer substantially higher wages or better employment prospects. Costs are very important in this respect since it is likely that the individual will incur both pecuniary and non-pecuniary costs as a result of their move and these may be large enough to outweigh the potential gains on offer. An important pecuniary cost of migrating is the cost of buying a house. For example, it is highly improbable that an unemployed individual in the North East could afford to move their family to the South East where their employment probability and future earnings power are likely to be higher. Non-pecuniary or psychological costs are also likely to be large for individuals with a strong attachment to the area where they currently reside especially if all of their friends and family live locally. Search costs can also be important since individuals

tend to be perfectly informed about employment opportunities in other areas. However, information flows are likely to have improved in recent years with technological developments such as the advent of the internet.

The importance of these factors in deterring migration is highlighted in Table 3, which reports internal migration flows within Britain in the 1990s. Even though the northern regions are typically net exporters of persons over the period, it can be seen that only a small proportion of individuals actually move by the comparing these to the population totals in each of the regions. The table also shows that London has the largest net population outflow in each of the years. The main net recipients have been the South West, South East and the Eastern region. The latter two regions have mainly benefited from the outward movement of London workers to the commuter belt, while the former has traditionally been a magnet for pensioners. Gordon and Molho (1998) document how these patterns have generally been observed over a longer time period and discuss the issues that arise in greater detail.

If the market is unsuccessful in reducing regional imbalances then the government can play a role in assisting these movements, particularly firm relocation, through its regional policy.³ However, regional policy in the UK has been dramatically scaled down over the past two decades. Evidence of this can be found in Table 3 which reports that Regional Selective Assistance (RSA) – the main domestic policy instrument over the period – was considerably lower in nominal terms in 1999/2000

³ Previous UK governments have also tried to stimulate labour migration. For example, the Industrial Transference Scheme, which was introduced in 1928, gave grants and loans to unemployed migrants. This was followed by a number of other schemes which tried to boost labour mobility but these were phased out because they were deemed not to be cost effective. For further details of these schemes and a history of regional policy in the UK, see Scott (2003).

than it was in 1990/1.⁴ RSA also tends to focus more on attracting foreign direct investment rather than trying to induce domestic firms to relocate (Armstrong and Taylor, 2000). There has also been an increasing reliance on EU regional funding over the last two decades, as Table 3 indicates, since EU funding is currently more than double that of RSA. However, with the accession of 10 relatively poor economies to the EU in 2004, regional assistance to the current member states may not be so generous in future. This implies that despite the factors that inhibit the movement of the labour, it has been, and may increasingly be, left to the market to assume a more prominent role if local and regional inequalities are to be reduced.

Finally, there is some debate over the degree of convergence between regional economies that actually results from increased migration. Barro and Sala-i-Martin (1991) and Blanchard and Katz (1992) do provide some evidence that migration has reduced regional income and unemployment differentials in the US. Despite the relatively large internal migration flows in the US, Borjas (2001) argues that these movements are insufficient to ensure the rapid elimination of income differentials and immigration can improve labour market efficiency since new immigrant workers will tend to locate in high wage areas.⁵ It follows that given the smaller volume of both internal and international migration in the UK then it will take far longer to remove regional differentials. Pissarides and McMaster (1990) argue that the adjustment process brought about by regional migration is slow and estimate that it takes over 20 years to remove a disequilibrium unemployment differential in a depressed region.

⁴ See Wren (1996) for a discussion of the reduction in regional assistance in the UK over a longer period.

⁵ Borjas (2001) estimates that the efficiency gain which accrues to US natives through the equalisation of the value of marginal products of workers in different labour markets as a result of immigration is substantial. His simulations suggest that this gain is in the order of \$5 billion to \$10 billion per annum.

Hughes and McCormick (1994) and McCormick (1997) find that migration had only a limited impact on reducing the north-south divide.⁶ Part of the explanation for this finding is that migration tends to be pro-cyclical, which means that migration is not likely to be a very effective mechanism for reducing regional unemployment differentials, especially during recessions (Armstrong and Taylor, 2000). Decressin and Fatás (1995) find that for Europe, participation rates fall rather than there being a tendency for individuals to migrate in response to an economic shock.

It should also be noted that certain groups also appear to be particularly reluctant to move. For example, despite experiencing the highest unemployment rates, individuals with manual occupations are the least mobile according to Hughes and McCormick (1987). They further estimate that the rate of inter-state job-related migration amongst US manuals was 18 times higher than the equivalent rate of inter-regional manual migration in Britain. Furthermore, as reported in the previous section, quite large differentials exist between areas which are located relatively close to each other and migration between these areas should help to reduce spatial inequalities. This suggests that in order to gain a better understanding of the process that underlies migration decisions in the UK it is important not only to establish the characteristics of individuals who are least prepared to migrate but also to compare the WTM within Britain with that in other countries.

⁶ See Armstrong and Taylor (2000) for a summary of evidence from other countries.

4. Data

The main data set used in this paper is the 1995 *British Social Attitudes Survey* (*BSAS*). This is a representative sample of adults aged 18 and over living in private households in Great Britain.⁷ Not only does the data set contain information on an individual's WTM from their current location but it also contains details of a range of personal and area characteristics. However, only around a third of the *BSAS* respondents were asked the WTM questions.⁸ Furthermore, given that we are interested in labour migration, we constrain our data to include those individuals aged between 18 and 55 i.e. just those who are likely to move for job related reasons rather than for retirement. This reduces the useable sample to less than 700 individuals.

The second data source is the *International Social Survey Programme* (*ISSP*), which is a cross-national data set that collects information on a particular issue each year. In 1995, respondents were asked a series of questions associated with national identity and migration. The information collected from the *BSAS* was used to form the British entry to the *ISSP* and similar data were obtained from 22 other countries (East and West Germany can still be separately identified). Therefore it is possible to use this data set to compare the WTM of Britons with those of individuals from other countries using a consistent set of questions. This will be done in Section 6, after the *BSAS* has been analysed.

⁷ The achieved sample size in 1995 was 3633, although females were slightly over-represented, since over 57 per cent of the sample were female. The higher proportion of females has been a feature of each *BSAS* since its introduction in 1983. A separate survey is carried out in Northern Ireland but is not analysed in the present study. Areas north of the Caledonian canal are also excluded because of their dispersed population. For further details of the sample design, see Lilley *et al.* (1997).

⁸ Each individual who was identified to take part in the survey was allocated to the A, B or C third of the sample. Only those individuals allocated to the A version of the questionnaire were required to answer the questions on national identity and migration (Lilley *et al.*, 1997).

Table 4 contains details of the willingness of Britons to move from their current area of residence. This information is collected for a number of different distances since respondents were asked how willing they would be to move away from their neighbourhood, town/city, county, Britain and Europe if they could improve their living or working conditions.⁹ Responses were given on a five-point scale, which was recoded so that a higher value indicates a greater WTM.

Focusing on the averages for all respondents, it can be seen that an individual's WTM decreases as the distance of the prospective move gets larger. This is exactly what the human capital model (Sjaastad, 1962) would predict since migration over longer distances is much less attractive due to the increased financial and indirect costs of longer moves (Schwartz, 1973). The indirect or 'psychic' costs are caused by the separation from friends, family and familiar surroundings and may be very high for certain individuals. Search costs will also increase with distance.

Given that the *BSAS* collects information on a range of personal characteristics this implies that the average WTM can be calculated for a range of demographic sub-groups. The table reports the average WTM split by different personal characteristics: gender, sex, economic position, area of residence and education, as well as those characteristics which previous studies on the willingness to move/movement intentions focus upon e.g. unemployment (Ahn *et al.*, 1999; Faini *et al.*, 1997), housing tenure (Hughes and McCormick, 1985) and duration dependence (Molho and Gordon, 1995). The table also reports p-values, which indicate whether the WTM differences between two sub-groups are statistically significantly.

⁹ The precise wording of the questions from which this information is derived can be found in the Appendix.

It can be seen from Table 4 that males exhibit a higher WTM than females over all distances, although the differences are only significant for moves to another town/city or county and at the national level. Younger people are also more willing to move than their elders and respondents with a degree view moving a more attractive prospect than those who do not possess a degree. The differences between graduates and non-graduates become larger as the distance of the prospective move increases. Each of these findings can also be explained within a human capital framework. Firstly, this model would predict that males should be less tied to their area than females because of family considerations. Younger people are more likely to migrate because they have a longer period over which they can pay back any moving costs they may incur, they are also less likely to have acquired location specific human capital and should have a lower psychological attachment with the area that they current reside than older individuals. Finally, more qualified individuals should be faced with a larger range of job opportunities, suffer lower psychic costs because they are already to have already left the family home and be better able to cover the financial costs of a move.¹⁰ Union wage bargaining and minimum wage rates should also reduce wage differentials amongst occupations that do not require higher qualifications. In common with graduates, non-manuals display a far higher WTM outside of their counties than those with manual occupations. A possible explanation for this finding is that professionals and managers are more likely than other occupations to operate within national rather than local labour markets.

¹⁰ For a more detailed discussion of the human capital model of migration, with particular reference to an individual's WTM, see Drinkwater (2003).

Unemployed individuals appear more willing to move than those with jobs or inactive persons, although the differences between the employed and unemployed are fairly small. In contrast, individuals who are currently inactive appear to be very reluctant to move from their current location. In terms of housing tenure, private renters are the most willing to move, providing some support for the conjecture of Oswald (1996) that the lack of private rented accommodation impedes labour mobility. Furthermore, in line with the arguments of Hughes and McCormick (1981, 1985), there appears to be a reluctance on the part of social housing tenants to engage in long distance migration.

In accordance with the findings of Gordon and Molho (1995), it can be seen that there exists a strong relationship between the length of time an individual has spent in an area and their WTM, with those who have spent more than seven years in an area far less willing to move than those who have been resident for a shorter period. Gordon and Molho (1995) term this effect ‘the seven year itch’. It might also have been thought that individuals living in the north of Britain would display a higher WTM than their southern counterparts, however, this is not observed in the raw data. In fact, residents of southern regions are more willing to move at each of the levels, although none of the differences are significant. In the next section, we will investigate the influence of these characteristics more formally by estimating econometric models of an individual’s WTM from their present location.

5. Estimates for Great Britain

Econometric models of an individual’s movement intentions or their willingness to move have been estimated by several authors, including Ahn *et al.* (1999) for Spain,

Burda *et al.* (1998) for Germany, Faini *et al.* (1997) for Italy, Yang (2000) for China and Hughes and McCormick (1985) and Gordon and Molho (1995) for Great Britain. Econometric models have been estimated since there is strong evidence to suggest that individuals who have a more favourable attitude towards migration are more likely to move. For example, Böheim and Taylor (2002) examine longitudinal data from the British Household Panel Survey and find that the actual propensity for moving was around three times higher for respondents who had expressed a preference for moving than those who did not express a preference for moving in the previous wave. Gordon and Molho (1995) also report evidence from a survey of actual and potential British migrants in 1980 that at least 90 per cent of the potential migrants moved within five years, of whom around a half moved within a year.

Most of the studies cited above estimate dichotomous dependent variable (i.e. logit or probit) models, but given the categorical and ordered nature of the WTM variable, Table 5 reports ordered probit estimates using *BSAS* data.¹¹ Estimates are reported for an individual's WTM to another location within Britain at the three levels reported in Table 4 i.e. neighbourhood, town/city and county. Even though our prime concern is to examine how willing an individual is to move to another part of Britain, estimates for the WTM country have also been reported because no question on how willing respondents would be to move to another region was asked in the survey i.e. we have no direct information on how willing an individual is to move to another county outside the region where they currently reside. By examining both the estimates for the WTM county and country, this should provide an indication of the factors that are important in determining the WTM region.

¹¹ The means of each explanatory variable included in the model are reported in Table A1.

As a consequence of the relatively small sample size, many of the explanatory variables reported in Table 5 do not reach the commonly used levels of significance.¹² In particular, some of differences observed in Table 4 are no longer significant when other controls are included. Nevertheless, some interesting results are still observed and the differences between the estimated coefficients in the four models also require discussion. For example, it can be seen that as the distance of the potential move increases so the influence of personal characteristics appears to become more important.

In terms of the personal characteristics, it is found that females are less willing to move any distance from their current place of residence after controlling for other influences, although the gender difference is only significant at the 5 per cent level for moving to a different town/city and to a different county. Each of the (younger) age categories are more willing to move from their current neighbourhood compared to the 46-55 age group but age does not have a significant effect on the WTM further afield after other controls are added. This is a rather surprising result considering that empirical studies typically find that younger individuals have far higher migration rates (Molho, 1987; Pissarides and Wadsworth, 1989; Thomas, 1994; Boheim and Taylor, 2002). Furthermore, Drinkwater (2003) found that age exerted an important influence on the WTM country when analysing the 1995 *ISSP*. The generally

¹² Separate models are estimated which exclude the income and occupation variables because these questions have fairly high non-response rates. These models also omit some of the previous residency variables and housing tenure because of potential multicollinearity with other regressors and endogeneity. Population density and household size are also excluded so that the estimates can be compared with those from the *ISSP*. These results are displayed in Table A2. In general, the significance of the coefficients, especially the human capital variables, is increased.

insignificant effect of age also contrasts with the predictions of the human capital model.¹³

Neither does marital status exert a very important influence, although widows, divorcees and separated individuals display a significantly higher WTM from their own county compared to those who are married. This is again slightly surprising given that married individuals will usually have stronger ties to their area. Pissarides and Wadsworth (1989) and Boheim and Taylor (2002) find that marital status is important in determining whether or not an individual moves, with single persons having the highest migration probability. Mincer (1978) focuses on the family migration decision and argues that migration rates would be much higher if people were just concerned about their own circumstances, rather than taking into account those of others. Similarly, one would expect larger households (who will have more children) to be less willing to move their families but this variable is only significant at the 5 per cent level in the WTM country model.

There are, however, a number of other variables that do have a significant influence on an individual's WTM. It is found that previous moves are important, in particular it can be seen that individuals who moved long distances (over 20 km) in the previous three years are much more prepared to move outside their town/city but still remaining in Britain. This finding might imply that recent migrants face lower psychic or search costs. However, it is only longer distance migrants who are more willing to move and recent short distance movers (less than 20km) even display a significantly lower WTM town/city compared with non-movers. Gordon and Molho

¹³ The influence of age on the WTM becomes more important when the income, occupation and some of the previous residency variables are excluded. See Table A2 for details.

(1995) and Pickles *et al.* (1982) examine the relationship between the length of time an individual stays in an area and their propensity to move. In common with these authors, it is consistently found that those individuals who have spent longer in their current town are less willing to move, although this variable only reaches significance at the 10 per cent level in the WTM country model.

The table reports only small differences in terms of housing tenure, implying that the greater willingness of private renters to move observed in Table 4 no longer holds after controlling for other factors. In fact, the coefficient on the private renting dummy is negative in three of the four models reported in Table 5. However, it should be noted that some of the explanatory variables in the models are likely to be co-linear. In particular, the variables that indicate the length of time an individual has been in the town where they currently reside, the distance they have moved in the previous three years and housing tenure. For example, the majority (58 per cent) of long distance movers are private renters despite the fact that this type of housing only accounts for 12 per cent of total housing tenure and it obviously follows that individuals who have moved long distances over the previous three years will only have a low value for the number of years spent in their current town.¹⁴ In general, the area where the individual spent their childhood does not greatly influence their WTM, although those individuals who grew up overseas appear to be more willing to move longer distances.

¹⁴ The number of years in current town variable becomes significant in the WTM town/city, county and country models if the variables controlling for recent moves are removed. However, housing tenure is not significant if the controls for recent moves are removed, this finding is likely to reflect the fact that private renters are not more willing to move after other personal characteristics, especially age and qualifications, are included.

The qualifications dummies are generally not significant in the three models for internal moves, which again is not that supportive of the human capital model. In fact, individuals without any qualifications are amongst the most willing to move within their own county. However, the coefficients on the qualification dummies increase as the distance of the prospective move increases and the coefficients attached to the degree, A-levels and O-levels dummies in the WTM country regression are positive and highly significant. This indicates that those with qualifications are far more prepared to move long distances i.e. highly qualified people are far more prepared to be inter-regional migrants. The manual dummy does not exert an important influence on the WTM once other personal characteristics are controlled for. However, an individual's education and their occupation are likely to be highly correlated. It can be seen from Table A2 that the coefficients attached to the higher level qualifications dummies, especially degrees increase, when the manual dummy is excluded.¹⁵ Household income does not appear to be a very important determinant of an individual's WTM despite the expectation that richer households would be better able to meet the financial costs of migration.¹⁶

The regional dummies are not significant apart from in the WTM country model, where residents in Wales and the South West are significantly more willing to move abroad. Residents in East Anglia and the North East also appear to be relatively willing to move outside their area. However, there does not appear to be any great desire to move from the less prosperous regions. Even if the regional dummies are

¹⁵ Similarly, the significance of the manual dummy increases if this is included rather than the qualifications dummies. However, the differences between manual and non-manual individuals is only significant in the WTM country model.

¹⁶ The housing tenure variable is banded in the *BSAS*, so it is entered as the mid-point of the category. Housing tenure almost reaches significance at the 5 per cent level in the WTM county model.

replaced with variables indicating the average level of wages and unemployment in each region, the coefficients on the aggregate labour market variables do not approach commonly used significance levels. Since the *BSAS* contains the postcode sector where the respondent lives, more disaggregated geographical information can be added. Despite the more detailed spatial data, none of the aggregate variables that were added had a significant influence on an individual's WTM.¹⁷

Other area characteristics such as population density and the individual's assessment of the level of crime in their area are important influences on the WTM, particularly over shorter distances. The coefficient on population density is significant at the 5 per cent level in all of the models apart from the WTM country. Whereas crime levels are important in influencing an individual's attitude towards migration only at the neighbourhood level. Therefore, individual characteristics appear to be more important in determining an individual's WTM than demographic factors, especially as the distance of the prospective move increases.

6. Comparison with other countries

Table 6 provides an international comparison of the WTM within the respondent's own country using the *ISSP*. As observed with the *BSAS* data, the WTM declines the further the prospective move. It is also noticeable (and reassuring) that there is a high degree of consistency in the ranking of the countries' average WTM at the

¹⁷ County level earnings, house prices and unemployment were all insignificant in each of the WTM models. The coefficients attached to the earnings variable were generally positive and those attached to house prices were negative in each of the models, whereas the unemployment coefficients all had very low t-statistics.

neighbourhood, town/city or county/regional levels.¹⁸ Even though it is generally argued that the migration of Britons could be much greater, the averages in Table 6 place Great Britain amongst those countries whose residents have the highest WTM. More specifically, Britons are ranked sixth, fourth and fifth in terms of their WTM neighbourhood, town/city and county respectively. Respondents from the US had the highest WTM at each of the three levels. This is in accordance with actual migration figures which indicate that the US has the most flexible and integrated national labour market (Pencavel, 1994). Canadians and the Dutch also display a relatively high WTM.¹⁹ The lowest WTM is observed in the former Soviet republics of Russia and Latvia. Respondents from other East European countries such as Hungary, Slovakia, the Czech Republic and Bulgaria also display a relatively low WTM within their own country.²⁰ The WTM within some EU member states such as Austria and Ireland is also relatively low.

Table 7 reports the results from three ordered probit models which estimate an individual's WTM within their country using the *ISSP*. In general, the signs attached to the estimated coefficients are very similar to those contained in Table 5, although the significance levels are somewhat higher. The much larger sample size in the *ISSP*

¹⁸ Interestingly, these rankings do change if the WTM country variable is analysed. For example, Americans are ranked 14th in terms of the WTM to another country. For a detailed examination of international differences in the willingness to emigrate, see Drinkwater (2003).

¹⁹ Canadians have the 2nd highest WTM from their neighbourhood and town/city but their lower ranking in terms of their WTM further afield could be due to the fact that the next level specified in the Canadian questionnaire is province (13 in total). Therefore, given that Canada is such a vast country, especially compared to Great Britain, where the next level specified is county (64 in total), it is not surprising that the relative ranking of Canada falls. More generally, the next level specified differs according to the administrative boundaries that exist within each country, for example the question relates to the WTM from an individual's state in the US, whereas it relates to province in New Zealand and county in Ireland.

²⁰ Drinkwater (2003) reports that the WTM country is also typically lower amongst those Central and Eastern European countries due to join the EU in 2004.

and more parsimonious specification are likely explanations for this.²¹ For example, age, marital status and qualifications are now significant in all models. Unemployed individuals are also more willing to move than employees and the duration dependence effects are much stronger.

From the country dummies we can also observe how the rankings shown in Table 6 are affected by controlling for personal characteristics. It is found that after netting out individual differences, Britain's WTM rankings are not altered very much since its ranking only falls to seventh out of the 23 countries in terms of their WTM neighbourhood, sixth for the WTM town/city and fifth for the WTM county/region. Although some of these differences are not significant, it is found that the Germans, Dutch, Americans and Canadians all display a significantly higher WTM from their neighbourhood than Britons do but the differences for longer moves tend not to be statistically significant.

7. Concluding Comments

It has been argued in this paper that despite the narrowing of unemployment disparities at the regional level over the past couple of decades, significant labour market differences remain at the regional and local level in the UK, especially when account is taken of hidden unemployment. Large income differences not only exist at the local level but also appear to be widening at the regional level, with London and the South East pulling away from the national average. Given that further European

²¹ The estimated models differ from those reported in Table 5 since some of the explanatory variables contained in the *BSAS* are not available in the *ISSP* e.g. whether the respondent moved in the past 3 years, their perception of crime in their area, housing tenure, population density and neither is the household income question answered in all countries.

integration is expected over the coming years, in particular if the UK becomes part of the European Monetary Union, these differentials are likely to widen yet further.

As a consequence of the reduction in regional assistance to deprived areas in the UK in recent decades and the continued reluctance of firms to relocate, it has been argued that increased migration is key to reducing local and regional inequalities. However, it is generally thought that migration rates are too low in the UK, especially in comparison to the US, for it to be an effective equilibrating mechanism. In this paper, individual attitudes towards migration have been examined in detail, firstly by analysing *BSAS* data to establish which groups have a low WTM. This was followed by an examination of *ISSP* data in order to compare the WTM of Britons with those of individuals from other countries.

One of the main findings is that educated people are far more willing to move long distances, whereas there is less variation between qualification levels over shorter distances. A likely explanation for this finding is that graduates face lower psychic costs as they have been to university and hence have already cut some of their ties with their local communities. The government's aim to get 50 per cent of young people through higher and further education by 2010 should therefore be conducive to improving labour mobility. More generally, government initiatives to increase educational attainment in deprived areas should also assist migration.

The raw statistics indicate that individuals with manual occupations are far less willing to move than those with non-manual occupations, although these differences tend not to be significant in the econometric models. Evans and McCormick (1994)

also find that manual workers have the lowest migration rates. Therefore it is those individuals who are most susceptible to unemployment who appear to be the least willing to move, even if they are not currently unemployed. A possible explanation for this is that those with manual occupations typically operate within local labour markets. Therefore, improving information on vacancies outside the immediate locality might encourage these individuals to expand their job search over a wider spatial area, especially as it is unlikely that individuals with manual occupations will engage in speculative migration.

The evidence presented in this paper therefore suggests a need for increased migration – particularly among certain groups e.g. those with manual occupations. Reform of the housing sector could help to remove some of the impediments to mobility because of the important links that exist between the housing and labour markets (Henley, 1998). For example, the movement of labour is restricted for social housing tenants by administrative restrictions on moving between local authorities, and for owner occupiers by high house prices, pre-contract uncertainties and the transactions costs that are associated with moving house.

The announcement by the UK government in January 2003 that it would be putting aside £1 billion to build 200,000 ‘affordable’ new houses in the South East should alleviate some of the housing market pressure on the areas surrounding London. However, it is by no means certain that this will be sufficient to attract more manual and public sector workers to the region. The policy prescriptions advocated by Oswald (1996) and Cameron and Muellbauer (1998) i.e. owner occupation reduces labour mobility and the need to support the private renting sector appear to be sound

on the basis of observing the raw data since private renters are by far the most willing of the housing tenure groups to move, especially over long distances. However, after controlling for other characteristics, the influence of housing tenure is negated in the WTM regressions. This suggests that it is not private renting *per se* but rather the characteristics of individuals who reside in private rented accommodation, for example they are younger and more educated, that makes this group more prepared to migrate. Policies that encourage the movement of manual workers such as the harmonisation of the tax treatment of migration costs, which manual workers do not receive but non-manuals typically do (McCormick, 1991), may therefore be more appropriate.

Neither regional nor local effects appear to be significant in the models suggesting that workers in deprived areas do not have a higher WTM, although people living in high crime areas showed some preference from moving out of their immediate locality. Rather, the relative influence of individual characteristics appears to be more important than area effects in determining an individual's WTM, especially as the distance of the prospective move increases.

One final policy issue related to these findings concerns immigration. In particular, if the costs of migration are too high to induce individuals currently living in one part of the country to move to another area to take advantage of the better employment prospects that exist in that area then immigration may be able to play an important role in improving labour market efficiency. There is evidence in support of this argument from the US as Borjas (2001) finds that there is a disproportional movement

of immigrants to high-wage areas and this movement speeds up the process of regional wage convergence.

TABLE 1

UK regional unemployment statistics: 1990-2000

	Unemployment Rates ¹			Long term unemployed ²			Unemployment-vacancies ratio ³			S.D. in unemployment rates ⁴	
	1990	1995	2000	1990	1995	2000	1990	1995	2000	2000	No. of UAs/LAs
North East	9.2	10.9	6.4	28.9	38.2	22.8	10.40	13.18	7.08	6.32	23
North West	7.1	8.2	4.2	31.1	35.6	20.1	7.76	7.78	4.98	3.91	43
Yorkshire and the Humber	6.4	8.3	4.5	26.7	35.4	20.3	9.52	12.10	5.35	4.10	21
East Midlands	4.9	7.2	3.5	22.1	35.6	19.8	8.49	10.45	4.87	3.24	40
West Midlands	5.5	7.8	4.1	27.2	40.4	24.9	9.36	10.31	4.90	3.16	34
Eastern	3.4	6.3	2.5	15.3	32.9	20.3	5.93	10.19	3.85	2.81	20
London	4.7	9.0	3.8	26.3	42.8	27.6	8.72	15.31	7.33	4.60	33
South East	2.8	5.7	1.9	15.6	33.8	19.6	5.10	9.31	3.08	2.02	95
South West	4.1	6.6	2.5	18.7	32.8	17.6	6.45	9.06	2.85	2.62	45
Wales	6.5	8.2	4.5	23.3	33.8	19.7	7.12	7.22	4.43	4.81	22
Scotland	7.8	7.7	4.8	30.8	33.4	20.3	9.09	7.97	4.67	5.09	32
Northern Ireland	13.0	11.3	5.3	—	55.6	31.7	—	—	—	5.79	26
United Kingdom	5.5	7.7	3.7	25.7	37.3	22.2	7.93	10.07	4.76	2.20	434

Sources and notes:

All figures relate to the claimant count definition and are annual averages and are not seasonally adjusted. The spatial unit of reference is GORs, whereas Standard Statistical Regions (SSRs) are used in the *BSAS*.

1. National Online Manpower Information System (NOMIS) – Rates are calculated using the workforce base (1996 base rate denominators are used to calculate unemployment rates for UAs/LAs for 1990 and 1995).
2. NOMIS – Percentage unemployed for 1 year or more. The GB rather than UK figure is used for 1990.
3. NOMIS – Number of unemployed divided by the number of vacancies. GB rather than UK average is reported.
4. NOMIS – Standard deviation in the unemployment rates of the LAs or UAs within each GOR.

TABLE 2

UK regional wage, employment and income statistics: 1989-2000

	Average wages ¹			Employment Rates ²			Disposable household income per capita ³				No. of NUTS3 areas
	1990	1995	2000	1992	1995	2000	1989	1995	1999	SD in 1999	
North East	90.0	89.2	88.0	65.9	64.7	67.4	88.9	87.9	82.9	4.26	7
North West	93.0	94.8	93.0	69.2	68.1	72.7	94.7	93.7	93.0	9.47	13
Yorkshire and the Humber	91.1	91.3	89.7	70.6	71.4	73.5	93.3	91.7	92.3	8.57	10
East Midlands	91.8	91.4	89.5	73.1	73.5	76.8	93.7	93.4	92.7	7.94	10
West Midlands	91.4	92.8	92.6	69.6	70.9	73.1	90.5	93.2	91.2	7.22	12
Eastern	94.9	98.9	99.5	75.9	75.7	78.3	109.8	105.5	111.7	9.00	10
London	123.1	131.7	134.3	67.9	67.4	71.1	117.9	119.9	119.4	22.96	5
South East	104.1	103.8	106.0	76.0	76.3	80.6	107.8	110.2	111.6	12.90	14
South West	93.8	93.6	91.0	73.5	74.7	78.6	101.4	98.2	97.5	6.89	12
Wales	88.2	90.1	88.1	67.3	67.2	69.4	89.8	91.3	90.4	5.59	12
Scotland	92.8	93.5	91.6	71.1	70.6	71.9	98.9	101.9	94.8	7.79	19
Northern Ireland	—	—	86.2	—	62.5	64.9	84.6	88.0	85.9	12.71	5
United Kingdom	100.0	100.0	100.0	71.3	71.1	74.3	100.0	100.0	100.0	11.90	129

Sources and notes:

1. New Earnings Survey (NES) – Average weekly wages as a percentage of UK average. Figures relate to SSRs for 1990 and 1995. Data for Northern Ireland are not available in 1990 and 1995.
2. Labour Force Survey (LFS), Spring quarter – Total in employment as a percentage of all persons of working age. The GB rather than UK figure is used for 1992.
3. Office for National Statistics (ONS) – Disposable household income *per capita* as a percentage of the UK average.

TABLE 3

UK regional demographic and policy statistics: 1990-2001

	Population ¹		Net migration ²			Regional preferential assistance ³			EU structural funds ⁴
	1999	% Δ 1991-99	1991	1995	1999	1990-1	1994-5	1999-00	2001
North East	2,581.3	-0.8	-1	-8	-5	85.0	38.4	18.1	70
North West	6,880.5	-0.1	-9	-11	-9	57.5	32.4	25.0	219
Yorkshire and the Humber	5,047.0	1.3	0	-7	-2	29.4	23.0	9.8	169
East Midlands	4,191.2	3.9	9	9	15	5.5	5.2	4.0	38
West Midlands	5,335.6	1.3	-5	-8	-18	18.0	14.7	20.5	69
East	5,418.9	5.2	9	16	23	–	0.7	0.5	16
London	7,285.0	5.7	-53	-37	-65	–	0.6	2.3	25
South East	8,077.6	5.2	13	23	20	–	0.9	5.0	4
South West	4,935.7	4.6	22	24	33	9.0	9.4	4.1	68
Wales	2,937.0	1.6	4	2	5	159.2	134.4	107.8	198
Scotland	5,119.2	0.2	9	-3	-4	133.7	109.2	137.9	126
Northern Ireland	1,691.8	5.3	3	0	-1	132.1	132.9	133.0	104
United Kingdom	59,500.9	2.9	–	–	–	629.4	501.8	468.0	1126

Sources and notes:

1. ONS – figures in thousands.
2. National Health Service Central Register (NHSCR) – figures refer to migrants of all ages and are in thousands.
3. Department of Trade and Industry (DTI) – figures in £ million.
4. DTI – figures in £ million and relates to Objective 1, 2 and 5 funds.

TABLE 4

Average willingness to move by demographic sub-group, Britain: 1995

	Neighbour- hood	Town/ City	County	Country	Continent	N
<i>Gender</i>						
Male	3.63	3.39	3.08	2.60	2.35	262
Female	3.57	3.18	2.83	2.37	2.20	371
p-value (male/female)	0.549	0.050	0.023	0.050	0.179	631
<i>Age</i>						
16-35	3.78	3.32	3.03	2.58	2.42	325
36-45	3.41	3.21	2.83	2.34	2.09	308
p-value (16-35/46-55)	0.000	0.303	0.064	0.032	0.004	631
<i>Qualifications</i>						
Degree	3.69	3.40	3.39	3.15	2.86	84
No degree	3.58	3.25	2.86	2.36	2.17	549
p-value (degree/none)	0.475	0.320	0.001	0.000	0.000	631
<i>Occupation</i>						
Non-manual	3.64	3.30	3.05	2.59	2.39	363
Manual	3.57	2.26	2.81	2.30	2.10	246
p-value (non-man./man.)	0.523	0.753	0.034	0.014	0.014	607
<i>Economic position</i>						
Unemployed	3.79	3.49	3.04	2.62	2.28	53
Employee	3.63	3.32	3.00	2.57	2.38	437
Inactive	3.39	2.99	2.64	1.98	1.82	143
p-value (unemp./emp.)	0.364	0.360	0.852	0.809	0.658	509
p-value (unemp./inact.)	0.080	0.034	0.096	0.006	0.034	173
p-value (inact./emp.)	0.073	0.015	0.011	0.000	0.000	578
<i>Housing Tenure</i>						
Private renting	3.72	3.53	3.29	2.97	2.79	76
Social housing	3.64	3.25	2.70	2.22	2.09	132
Owner occupied	3.56	3.23	2.94	2.44	2.21	425
p-value (renting/social)	0.668	0.159	0.005	0.001	0.001	206
p-value (renting/OO)	0.306	0.071	0.043	0.003	0.001	499
p-value (social/OO)	0.513	0.883	0.076	0.107	0.359	555
<i>Length of residence</i>						
<7 years	3.88	3.52	3.35	2.87	2.67	145
≥ 7 years	3.51	3.20	2.81	2.34	2.14	488
p-value (<7/≥ 7)	0.002	0.011	0.000	0.001	0.001	631
<i>Area</i>						
South	3.62	3.28	2.98	2.50	2.32	393
North	3.56	3.26	2.86	2.41	2.16	240
p-value (South/North)	0.596	0.861	0.291	0.455	0.158	631
Great Britain	3.60	3.27	2.93	2.46	2.26	633

Source: BSAS

- Notes: 1. The table only includes those observations in which the individual answered all of the WTM questions.
2. The regional identifier in the BSAS is based on SSRs. North = North West, North East, Yorkshire & Humbs, Wales and Scotland. South = South East, South West, London, Eastern, East Anglia and West Midlands.
3. p-value refers to a two-tailed test of the difference between the two mean WTM values in parentheses. N in this instance refers to the number of degrees of freedom used in the test.

TABLE 5

Ordered probit estimates of the willingness to move, Britain: 1995

	Neighbourhood		Town/City		County		Country	
	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
<i>Personal Characteristics</i>								
Female	-0.148	1.45	-0.216	2.12	-0.235	2.25	-0.079	0.75
Aged 18-25	0.389	1.93	0.123	0.57	0.142	0.66	0.035	0.15
Aged 26-35	0.344	2.25	-0.012	0.08	0.125	0.84	0.051	0.31
Aged 36-45	0.086	0.62	0.003	0.02	-0.025	0.20	0.024	0.16
Widowed/Divorced	0.320	1.89	0.199	1.14	0.328	1.99	0.099	0.53
Single	0.228	1.51	0.200	1.17	-0.041	0.27	0.086	0.95
Unemployed	0.049	0.26	-0.065	0.45	0.174	0.85	0.086	0.39
Inactive	0.056	0.41	0.033	0.24	0.089	0.62	-0.283	1.92
Manual	-0.058	0.51	0.002	0.02	-0.065	0.54	-0.062	0.52
Degree	-0.268	1.37	-0.124	0.62	0.044	0.21	0.601	2.87
Other higher education	-0.246	1.35	-0.012	0.07	0.011	0.06	0.319	1.63
A-levels	0.078	0.45	0.206	1.24	0.230	1.29	0.446	2.41
O-levels	-0.081	0.51	-0.047	0.31	0.078	0.48	0.387	2.22
CSE	-0.487	2.57	-0.222	1.18	-0.066	0.33	0.108	0.48
Foreign qualifications	0.267	0.69	0.116	0.29	-0.404	0.86	0.395	0.90
<i>Household Characteristics</i>								
Social housing	0.048	0.31	0.119	0.75	-0.102	0.62	-0.027	0.16
Renting privately	-0.168	1.04	-0.185	1.09	-0.185	1.11	0.034	0.19
Number in household	0.013	0.32	-0.028	0.72	-0.056	1.35	-0.088	2.12
Household income/100 (midpoints)	0.136	1.39	0.116	1.18	0.185	1.87	-0.008	0.08
Household income squared/10000	-0.007	0.82	-0.007	0.85	-0.013	1.54	0.005	0.52
<i>Residency Variables</i>								
Spent childhood in another town	0.037	0.25	0.001	0.01	0.051	0.33	-0.161	0.96
Spent childhood in a different region	0.042	0.25	-0.037	0.21	0.189	1.05	-0.251	1.43
Spent childhood in another country	-0.005	0.02	0.118	0.33	0.688	2.09	0.416	1.46
Short move in last 3 years	-0.118	1.05	-0.238	2.10	-0.001	0.01	0.097	0.81
Long move in last 3 years	0.417	1.72	0.652	2.72	0.969	3.99	0.453	1.72
No. of years spent in current town	-0.004	0.65	-0.008	1.31	-0.007	1.29	-0.010	1.68
<i>Area Variables</i>								
Population density	0.005	2.13	0.005	2.35	0.007	3.34	-0.001	0.44
Northern	-0.201	0.76	-0.139	0.56	0.140	0.59	0.223	1.02
North West	0.140	0.59	0.097	0.43	0.093	0.44	0.071	0.33
Yorkshire and Humberside	0.273	1.30	0.040	0.20	0.088	0.43	0.163	0.79
East Midlands	0.138	0.61	-0.040	0.18	-0.180	0.84	0.202	0.90
East Anglia	0.159	0.68	0.137	0.61	0.293	1.22	0.350	1.56
South West	-0.128	0.59	-0.180	0.88	0.065	0.33	0.427	2.12
South East	-0.026	0.14	-0.068	0.40	0.036	0.20	0.150	0.82
Greater London	-0.209	0.96	-0.041	0.20	-0.029	0.13	0.381	1.63
Wales	0.038	0.16	0.307	1.31	0.214	0.87	0.525	2.13
Scotland	-0.006	0.03	-0.101	0.49	-0.151	0.71	0.040	0.18
Fairly high crime area	-0.092	0.50	0.109	0.60	0.113	0.64	0.178	1.00
Average crime area	-0.270	1.65	-0.050	0.31	-0.119	0.77	0.079	0.49
Fairly low crime area	-0.206	1.15	-0.010	0.06	-0.004	0.02	-0.029	0.16
Very low crime area	-0.462	2.37	-0.242	1.21	-0.182	0.99	-0.265	1.35
N	583		569		566		563	

Source: BSAS

Note: The t-statistics are calculated using heteroscedastic consistent standard errors.

TABLE 6**Average willingness to move by country: 1995**

	Neighbourhood		Town/City		County/Region		N
	Average	Rank	Average	Rank	Average	Rank	
Austria	2.93	19	2.49	20	2.25	20	612
Bulgaria	2.95	17	2.86	13	2.64	14	680
Canada	3.85	2	3.40	2	2.94	4	1124
Czech Republic	3.18	14	2.61	19	2.52	17	770
East Germany	3.36	10	2.84	14	2.65	13	348
Great Britain	3.61	6	3.28	4	2.94	5	647
Hungary	2.78	21	2.44	21	2.15	21	639
Ireland	2.94	18	2.63	18	2.43	19	700
Italy	3.38	9	2.87	12	2.67	12	814
Japan	2.86	20	2.72	17	2.54	16	830
Latvia	2.31	22	2.03	23	1.76	23	574
Netherlands	3.63	5	3.36	3	3.05	2	1530
New Zealand	3.58	7	3.13	8	3.01	3	695
Norway	3.68	4	3.25	5	2.73	11	1074
Philippines	3.01	15	2.92	11	2.77	9	966
Poland	3.19	13	2.78	15	2.63	15	657
Russia	2.21	23	2.07	22	1.77	22	1024
Slovakia	3.35	11	2.97	10	2.77	10	988
Slovenia	2.95	16	2.76	16	2.44	18	731
Spain	3.29	12	3.17	6	2.93	6	830
Sweden	3.58	8	3.01	9	2.79	8	853
United States	3.93	1	3.58	1	3.19	1	968
West Germany	3.70	3	3.17	7	2.86	7	752

Source: *ISSP*

Notes: 1. Region used instead of county for some countries.

2. The table just uses those observations in which individuals answer all of the WTM questions.

TABLE 7

Ordered probit estimates of the willingness to move, all countries: 1995

	Neighbourhood		Town/City		County/Region	
	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
Female	0.003	0.21	-0.016	0.97	-0.058	3.53
Aged 16-25	0.379	10.73	0.302	8.41	0.228	6.36
Aged 26-35	0.270	10.16	0.169	6.23	0.129	4.80
Aged 36-45	0.114	4.90	0.062	2.63	0.027	1.14
Widowed/Divorced	0.162	5.69	0.125	4.30	0.084	2.85
Single	0.083	3.74	0.081	3.61	0.073	3.25
Unemployed	0.086	2.69	0.118	3.62	0.096	3.01
Inactive	0.009	0.45	0.024	1.16	0.034	1.64
Higher	0.321	10.61	0.306	10.03	0.322	10.62
Semi-higher	0.295	9.53	0.312	9.94	0.276	8.94
Secondary completed	0.199	7.94	0.210	8.20	0.193	7.71
Incomplete secondary	0.116	4.30	0.142	5.11	0.118	4.32
Spent childhood in another town	-0.000	0.00	0.019	0.71	-0.089	3.37
Spent childhood in a different region	0.059	2.04	0.040	1.35	0.236	8.06
Spent childhood in another country	-0.070	1.54	-0.072	1.55	-0.018	0.38
No. of years spent in current town	-0.009	8.80	-0.011	11.00	0.010	10.35
West Germany	0.229	4.13	0.062	1.12	0.072	1.27
East Germany	-0.073	1.03	-0.186	0.05	-0.106	1.59
United States	0.198	3.67	0.149	3.44	0.067	1.17
Austria	-0.315	5.05	-0.425	2.46	-0.375	5.94
Hungary	-0.524	8.52	-0.531	6.28	-0.540	8.58
Italy	-0.010	0.17	-0.141	0.55	-0.083	1.36
Ireland	-0.413	6.58	-0.407	4.39	-0.368	5.76
Netherlands	0.070	1.43	0.130	3.73	0.110	2.20
Norway	0.067	1.31	-0.033	0.53	-0.169	3.27
Sweden	0.026	0.48	-0.176	1.67	-0.099	1.78
Czech Republic	-0.247	4.38	-0.416	4.51	-0.278	4.92
Slovenia	-0.402	7.29	-0.277	3.03	-0.288	5.12
Poland	-0.223	4.10	-0.278	3.79	-0.119	2.18
Bulgaria	-0.340	5.61	-0.168	0.26	0.080	1.34
Russia	-1.073	20.10	-0.941	15.46	-0.973	17.28
New Zealand	-0.028	0.48	-0.037	0.63	-0.043	0.74
Canada	0.176	3.42	0.068	1.31	-0.042	1.41
Philippines	-0.566	10.23	-0.411	7.39	-0.149	2.60
Japan	-0.551	10.13	-0.399	7.24	-0.270	4.92
Spain	-0.132	2.24	0.051	0.84	0.082	1.35
Latvia	-0.975	15.22	-1.009	15.14	-1.012	15.54
Slovakia	-0.123	2.34	-0.130	2.42	-0.052	0.94
N	19057		18677		18930	

Source: *ISSP*

Note:

The t-statistics are calculated using heteroscedastic consistent standard errors.

Appendix

The WTM questions asked in the *BSAS/ISSP* were:

- If you could improve your work or living conditions, how willing or unwilling would you be to move to another *neighbourhood or village*?
 1. Very willing (recoded as 5)
 2. Fairly willing (recoded as 4)
 3. Neither willing nor unwilling (coded as 3)
 4. Fairly unwilling (recoded as 2)
 5. Very unwilling (recoded as 1)

- If you could improve your work or living conditions, how willing or unwilling would you be to move to another *town or city* within this county (region for some countries in ISSP)?
 1. Very willing (recoded as 5)
 2. Fairly willing (recoded as 4)
 3. Neither willing nor unwilling (coded as 3)
 4. Fairly unwilling (recoded as 2)
 5. Very unwilling (recoded as 1)

- If you could improve your work or living conditions, how willing or unwilling would you be to move to another *county* (region for some countries in ISSP)?
 1. Very willing (recoded as 5)
 2. Fairly willing (recoded as 4)
 3. Neither willing nor unwilling (coded as 3)
 4. Fairly unwilling (recoded as 2)
 5. Very unwilling (recoded as 1)

- If you could improve your work or living conditions, how willing or unwilling would you be to move outside *Britain* (country named in ISSP)?
 1. Very willing (recoded as 5)
 2. Fairly willing (recoded as 4)
 3. Neither willing nor unwilling (coded as 3)
 4. Fairly unwilling (recoded as 2)
 5. Very unwilling (recoded as 1)

- If you could improve your work or living conditions, how willing or unwilling would you be to move outside *Europe* (continent named in ISSP)?
 1. Very willing (recoded as 5)
 2. Fairly willing (recoded as 4)
 3. Neither willing nor unwilling (coded as 3)
 4. Fairly unwilling (recoded as 2)
 5. Very unwilling (recoded as 1)

TABLE A1

Means of Explanatory Variables: *BSAS* and *ISSP*

	<i>BSAS</i>		<i>ISSP</i>
	Table 5	Table A2	
Female	0.587	0.589	0.523
Aged 18-25	0.151	0.175	0.202
Aged 26-35	0.348	0.331	0.277
Aged 36-45	0.278	0.267	0.289
Widowed/Divorced	0.132	0.132	0.099
Single	0.232	0.254	0.281
Unemployed	0.077	0.085	0.074
Inactive	0.190	0.197	0.236
Manual	0.396	–	–
Degree	0.136	0.128	0.137
Other higher education	0.163	0.151	–
Foreign qualifications	0.009	0.007	0.130
A-levels	0.178	0.175	–
O-levels	0.240	0.251	0.348
CSE	0.090	0.092	0.213
Social housing	0.216	–	–
Renting privately	0.120	–	–
Number in household	2.887	–	–
Household income (monthly)	415.108	–	–
Spent childhood in another town	0.268	0.263	0.247
Spent childhood in a different region	0.209	0.203	0.169
Spent childhood in another country	0.033	0.042	0.041
Short move in last 3 years	0.293	–	–
Long move in last 3 years	0.046	–	–
No. of years spent in current town	20.274	20.037	22.028
Population density	25.019	–	–
North East	0.055	0.054	–
North West	0.082	0.085	–
Yorkshire and Humberside	0.091	0.096	–
East Midlands	0.077	0.073	–
East Anglia	0.043	0.045	–
South West	0.099	0.100	–
South East	0.204	0.195	–
Greater London	0.096	0.102	–
Wales	0.062	0.063	–
Scotland	0.089	0.087	–
Fairly high crime area	0.142	0.144	–
Average crime area	0.332	0.328	–
Fairly low crime area	0.252	0.259	–
Very low crime area	0.146	0.145	–
N	583	674	19057

Notes:

1. Means are reported for the WTM neighbourhood model.
2. An indication of the percentage of respondents from each country for each of the *ISSP* models can be obtained from Table 6.
3. The youngest age category is 16-25 in the *ISSP*.
4. Educational qualifications in other *ISSP* countries have been recoded so that they are roughly equivalent to UK qualifications (see Drinkwater, 2003, for further details).

TABLE A2

Additional ordered probit estimates of the willingness to move, Britain: 1995

	Neighbourhood		Town/City		County		Country	
	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
Female	-0.048	0.52	-0.171	1.86	-0.226	2.41	-0.094	0.99
Aged 18-25	0.301	1.74	0.066	0.36	0.015	0.08	-0.040	0.20
Aged 26-35	0.387	2.89	0.072	0.53	0.162	1.25	0.036	0.25
Aged 36-45	0.176	1.43	0.098	0.76	-0.010	0.08	0.032	0.23
Widowed/Divorced	0.229	1.67	0.230	1.61	0.202	1.51	0.126	0.86
Single	0.102	0.86	0.042	0.36	-0.066	0.55	0.103	0.86
Unemployed	0.052	0.34	0.056	0.33	0.070	0.42	0.097	0.54
Inactive	-0.074	0.62	-0.063	0.52	-0.076	0.62	-0.316	2.44
Degree	0.034	0.21	0.062	0.37	0.344	1.99	0.723	4.10
Other higher education	-0.055	0.35	0.060	0.39	0.144	0.92	0.376	2.28
A-levels	0.154	1.01	0.223	1.44	0.342	2.22	0.502	3.05
O-levels	-0.038	0.28	-0.028	0.21	0.102	0.73	0.334	2.22
CSE	-0.237	1.41	-0.126	0.73	0.038	0.21	0.127	0.62
Foreign qualifications	0.115	0.29	-0.070	0.17	-0.454	1.01	0.262	0.64
Spent childhood in another town	-0.024	0.18	-0.015	0.11	-0.035	0.25	-0.226	1.46
Spent childhood in a different region	0.083	0.53	0.058	0.36	0.225	1.41	-0.231	1.46
Spent childhood in another country	0.061	0.23	0.198	0.72	0.601	2.23	0.367	1.45
No. of years spent in current town	-0.005	0.89	-0.007	1.30	-0.010	1.92	-0.013	2.42
Northern	-0.146	0.56	-0.074	0.31	0.183	0.76	0.246	1.13
North West	0.099	0.60	0.071	0.36	0.122	0.64	0.090	0.47
Yorkshire & Humberside	0.116	0.62	-0.021	0.12	-0.014	0.07	0.090	0.49
East Midlands	0.121	0.80	-0.091	0.45	-0.121	0.62	0.231	1.13
East Anglia	-0.126	0.21	-0.101	0.48	0.141	0.65	0.256	1.16
South West	-0.189	0.83	-0.127	0.68	0.003	0.02	0.174	0.95
South East	-0.022	0.28	-0.107	0.68	0.004	0.02	0.106	0.63
Greater London	-0.111	0.83	-0.001	0.00	0.122	0.65	0.333	1.68
Wales	-0.269	0.77	0.037	0.17	0.059	0.28	0.415	2.02
Scotland	-0.170	0.47	-0.200	1.02	-0.124	0.63	0.047	0.22
N	674		658		651		647	

Source: BSAS

Note:

The t-statistics are calculated using heteroscedastic consistent standard errors.

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