Newcastle University e-prints

Date deposited: 30th January 2012

Version of file: Author final

Peer Review Status: Peer reviewed

Citation for item:

Further information on publisher website:

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Did the early A8 in-migrants to England go to areas of labour shortage?

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Abstract

This paper analyses the local incidence across England of migration flows from the eight Accession (A8) countries of east and central Europe immediately following the 2004 expansion of the European Union. It examines not only the total inflow of A8 migrants but also the 3 largest nationality groups, as well as 3 large groups defined by the type of job they gained. The distributions of these migrant groups are related to labour market conditions to see how far migrants were attracted to areas with tight labour supply. Migrant group distributions are modelled to take into account other potential drivers such as the patterns of earlier migrant populations. Datasets on the A8 migrants have limitations, and these are noted because policy development may be hindered as a result.

Key words

migration   labour shortage   England   A8 countries   TTWA

Acknowledgements

Did the early A8 in-migrants to England go to areas of labour shortage?

Recent pronouncements from the British Government have stressed that immigrants make substantial contributions to the national economy, not least in the form of additional labour supply for tight labour markets (eg. Home Office 2005). This paper seeks to move the debate forward by looking at the local distribution across England of one recently very important international contribution to Britain's labour supply. The aim is to establish how far this migrant stream went to tighter labour markets, as is implied by the view that such migrants help solve labour bottlenecks.

The migrants examined here are from the countries in Central and Eastern Europe whose accession to the European Union on May 1st 2004 gave their residents access to the British labour market. This right of access was already available to residents of Malta and Cyprus due those countries' Commonwealth membership, but it was a major policy shift in relation to nationals from the other 2004 accession states which have become known as the "A8" countries (viz. Czech Republic, Estonia, Hungary Latvia, Lithuania, Poland, Slovakia, Slovenia). When the 'open door' policy was created relatively few A8 migrants were expected (Dustmann et al 2003),, but all the other existing members of the European Union apart from Ireland and Sweden then erected barriers to their labour markets (Traser 2005) and Britain saw far more people arriving from these countries than had been anticipated.

The next section of this paper briefly outlines some policy issues around the question of the contribution of immigrants to labour supply at a local level. This is followed by a summary of the approach taken here to establish the geography of A8 in-migrant flows given the available evidence base. The third section describes the basic results of this mapping exercise, then the major part of the paper reports on modelling analyses which seek to establish how far the pattern of local labour shortages has shaped where the in-migrants have found work. As well as analysing the total inflow, there are results from models which look at six large sub-groups of the A8 migrants (defined by either their nationality or their job type) The final section then briefly summarises and reflects upon the empirical results and their possible implications.

Migration and labour shortages

The view of the British Government that immigrants are helping the economy through redressing labour shortages reflects the findings of specially commissioned studies which did not examine the situation at a sub-regional level (Portes and French, 2005; Gilpin *et al*, 2006). On arrival, registered A8 in-migrants must have jobs in this country, and in general this suggests that they

must have met the requirements of labour demand in the area where they are working. At the same time, their presence may well impact on others in the local labour force: for example, Green et al (2007) detected an increased risk of unemployment among the lower skilled segments of the 'local' workforce in some areas of the East Midlands region which they studied.

If the A8 migrants have relatively high skills – relative to the low paid jobs most have found (May et al 2007) – then they could have gone where the local workforce is numerous but unable to compete on skill levels. Local unskilled workers may then be 'bumped down' (Buck et al 2002) into unemployment as a result of employers' preference for well-qualified migrants, even though these qualifications may have little relevance to the work involved. This possibility reinforces the concern with investigating whether A8 migrants have gone[1] where labour market conditions are tighter.

The study database and areas

This study examines the distribution of A8 migrants and follows the official monitoring reports (eg. Home Office et al 2005) by using the Worker Registration Scheme (WRS) dataset[2] covering employed migrants. Our analyses focus on just the first 14 months of registrations – those from May 2004 to June 2005 – because the WRS dataset does not record departures and therefore as time passes it becomes progressively less helpful in estimating the numbers actually working in each area. At the same time, the WRS dataset is a major improvement over almost all the related data sources (Clarke and Salt 2003) in providing the comprehensive sub-regional data outputs which are essential for this study.

The study covers England and uses a set of 170 areas that are groupings of local authority areas. These groupings were created to approximate to Travel-to-Work Areas (TTWAs), which are Britain's official definitions of local labour market areas (ONS and Coombes 1998). Their use here is appropriate because of the labour market focus of the study. Anonymised individual records were provided by the Home Office for the study undertaken by Stenning et al (2006) and more than 95% of them could be assigned to this geography on the basis of their postcodes, even though they had had their last three digits removed to preserve confidentiality. In all, our study covers almost 188,000 in-migrants registering for work under the WRS system in the period of interest.

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[1] It should, of course, not be presumed that all migrants are entirely free to choose their destination: for many there is the key role of recruitment agencies (Dench et al 2006) – gang-masters in some sectors – who are channelling inflows of workers.

[2] The dataset includes the postcode of either registered place of work or of the agency that workers are registered with, as well as information about the country of citizenship and the type of work. Self-employed migrants are not covered.

Where did the A8 in-migrants go?

As a starting point, it is important to establish how unevenly across England the A8 in-migrants were distributed. Given that the 170 areas vary greatly in size, the most transparent way to show the variation across England is in terms of Location Quotients (LQs). LQs show where a group has more – and where less – of a presence than expected, given that area's share of the national workforce. LQ values of over 1.0 indicate areas that have bigger shares of that group than they do of the total workforce, while LQ values of under 1 show under-representation of the group in that area.

Map 1 uses LQs to reveal the pattern of total A8 in-migration at TTWA level across the country. Areas with LQs of 1.2 and over – that is, a share that is at least one-fifth larger than expected – make up some very clear concentrations, most notably in the Fenland and adjacent areas. Another concentration of TTWAs with higher LQs is in south-east England (including London). The capital is the only major conurbation city with such a high LQ (in fact, Manchester and Liverpool have LQs below 0.6 which means that their shares of the A8 in-migrants are at least 40% lower than expected).

Map 1 here

At the same time, a considerable degree of intra-regional diversity is apparent. There are some TTWAs with high LQs and some with low LQs in almost every region. The one exception is the uniformly low level of A8 in-migration to north-east England where no area's LQ is 0.6 or more. Even the south-eastern corner of England, despite having many of the higher LQs, has some TTWAs with low values (eg. Portsmouth and the Isle of Wight plus much of Essex). This clearly demonstrates the importance of a sub-regional perspective in assessing the relationship of this pattern of migration to labour market tightness.

Are local labour shortages the key factor behind the A8 migrants' location patterns?

The first step in answering this question is to examine the relationship between the migration patterns and labour market tightness. We follow the practice in British official statistical analyses (eg. Hastings 2005) of measuring labour market tightness by the proportion of working age people who are in work, the employment rate. Unemployment rates and vacancy levels provide less reliable comparisons between local areas because they both report on rather small segments of the labour market (ONS 2007). When we take the employment rate for the year

2003-04 and compare its variation across the 170 areas with the variation of LQs (as in Map 1), a correlation coefficient (*r*) of 0.09 is the result. This indicates that, while the relationship between the two is positive, it is very weak and in fact is insignificant in statistical terms. In short, it appears that the early A8 in-migrants were almost as likely to go to areas of labour market weakness as to areas of labour market tightness.

Does this mean that labour market tightness played no significant role in producing the patterning of A8 migrant destination? Although it was reasonable to have expected that the migration of working people would be strongly influenced by this factor, even labour migrants are influenced by many other factors beyond a simple shortage of labour, as emphasised in relation to international migration flows by McGovern (2007). These may include other aspects of labour market such as the employment rate for different skill groups, the composition of the population in terms of skills, and the area's industrial structure. In addition, an area's relative attractiveness to long-distance migrants can be affected by local housing affordability, the presence of people who have moved previously from the same part of the world, and other aspects of the local population profile such as its ethnic composition. If these factors influenced the A8 migration pattern then the result could well be a reduced level of correlation between the migration pattern and labour market tightness, even while the latter may still be having some effect.

To test this hypothesis, we use multivariate regression analysis to try and estimate the specific role of labour market tightness in the spatial variation of the LQ values, whilst also identifying the part these other factors may be playing. Table 1 lists the 13 explanatory variables used in this modelling and shows for each the relationship hypothesized between it and the A8 migration LQs across the 170 areas. For instance, of the three labour market variables, the overall employment rate and the employment rate of those without qualifications are expected to have positive relationships with the scale of A8 migration, because higher employment rates indicate tighter labour market conditions and hence a potential demand for extra workers. The third variable – the proportion of unqualified people in the population – has a less obvious relationship with the LQs. On the one hand, a negative relationship could be a result of areas with insufficient unqualified local residents having more unfilled low-paying jobs and so more available opportunities which A8 migrants could take up. On the other hand, a positive relationship may result from areas with more unqualified people being where low pay jobs are concentrated, so these areas have more low pay jobs to compete for. A similar question applies to the effect on the non-White local population share, namely whether the presence of other groups likely to compete for lower paid work will tend to 'crowd out' new in-migrants or instead be a reflection of a strong local demand for workers for low paid jobs.

Table 1 here

Turning to industrial structure, the four main sectors shown are those which have absorbed the vast majority of the A8 migrants, so a positive relationship is expected with all these and a negative one with the residual category. It worth noting here that no explicit urban/rural variable is included in the model, despite the fact that in-migrants have in the past tended to go to larger urban areas (Storkey and Lewis 1996). This is because preliminary analyses revealed that the Urbanisation Index of Coombes and Raybould (2001) is very highly correlated (r= -.74)[3] with the agriculture sector variable. As for the other variables, a positive relationship is expected with measures of previous migration, given that migration can act as a cumulative process (not least through a 'chain migration' effect), while housing unaffordability[4] is expected to be a deterrent., given that the migrants are mostly in jobs paying low wages (Spencer et al 2007).

Table 1 also reports in its final column the results of the regression analysis in the form of the standardised (beta) coefficients. These show that the relationships generally take the signs which were expected. There was a greater relative inflow of A8 migrants to areas with:

 ➤ higher total employment rates,
 ➤ more employment in agriculture and retail/hospitality sectors,
 ➤ less unaffordable housing and
 ➤ recent net migration gains.

The only unexpected relationships are the negative effects of the employment rate for unqualified people and of the proportion working in transport and construction. The two variables where there was no clear expectation about the direction of the relationship – the proportions of unqualified people and non-whites – both prove to be positive, which was seen as being consistent with the A8 migrants responding to a strong local demand for low skill workers.

With all these 13 variables in the Table 1 model being highly significant, each is making its own separate contribution to the explanation of the variance of A8 migrants across the country. However the key issue here was the importance of the part played by labour market tightness. As can be seen from the size of the beta coefficients (which can be compared while ignoring their signs), the overall employment rate is not only providing a positive attraction for the migrants as hypothesised, but it is also found to be one of the two main drivers of the migrants' distribution across the country. Its importance is exceeded only by areas' proportion of people working in 'all other sectors' (viz: the sectors that have seen much less entry by these migrants than the four shown separately). The fact that the four specified sectors play a less important

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[3] No two variables in the following model are correlated at as high a level as this.
[4] There is no consensus on the measurement of housing affordability; we use the values provided by Wilcox (2006).

role individually is probably due to each only taking a proportion of the A8 migrants. As regards the negative coefficient for the presence of manufacturing jobs, this could be because the migrants are avoiding areas with a long-established industries and instead focussing more on areas with small but growing manufacturing sectors.

The next most important variable in the model is the proportion of an area's residents who were born in Eastern Europe (according to the 2001 Census). This is perhaps surprising, given that many of these earlier migrants probably arrived in this country over 50 years ago (Kay and Miles 1992). The positive effect of these earlier migrants in an area might have encouraged new migrants who maintained contact with the earlier generations of migrants, or there may be some cultural and other institutional support available in these areas which is missing where there are few earlier migrants from this part of the world. The next most important variable in the model proves tp be the proportion of unqualified people in the area, followed by the negative relationship with local housing unaffordability. Less important roles are shown in Table 1 for the employment rate of unqualified people, the presence of non-whites and both the international and within-UK net migration variables.

In all, the model provides only a modest fit to the A8 migration LQs, as shown by the adjusted R2 of 0.33 which is indicating that the model 'explains' only one third of the variance in the LQs across the country. One conclusion could be that the migrants' destinations must be influenced by some factors other than those represented by the variables in this model. Another possibility is that A8 migration is composed of a number of different elements, and that each responds differently to the drivers. The two most obvious sources of heterogeneity are in terms of the different countries that the migrants have moved from, and the types of job that they have taken on arrival. These two subdivisions of the A8 migrant population will now be explored in turn.

Country of origin

Table 2 presents the results of applying almost the same model as in Table 1 to the three countries that supplied the vast majority of the A8 migrants in the reference period: Poland (with 57% of the total), Lithuania (15%) and Slovakia (11%). The only difference is that the measure of previous migration from Eastern Europe is replaced by a country-specific one (although the way the 2001 Census data is coded means we have to use a 'Czechoslovakia-born' variable for the Slovaks). In terms of whether the focus on the individual country of origin improves the level of explanation of the LQs, the answer is essentially no: the r2 value for the Poles is 0.336 which is only marginally higher than for the A8 total, but the value for the Slovaks is substantially lower.

Table 2 here

As for the role of the 13 variables, the results in Table 2 show some broad similarities with the all-A8 results, but there are also some differences for particular countries. Looking first at our key driver of labour market tightness, its effect is positive for all three countries. It is also one of the more important factors in each of the models, and in fact for Slovaks it is the most important factor of all. The deterrence effect of economic specialisation in 'all other sectors' is also common to,and important in, all the models, and is again especially important in the Slovak model. The presence of previous immigrants from the same country also appears to be an important attraction in all three cases (although least for Poles).

The proportion of unqualified people in an area is an important factor for all three nationalities, but here the Poles are different because they avoid these areas whereas the other two nationality groups are drawn to them. By contrast, areas with high employment rates for the unqualified are attracting Poles but are not favoured by the Lithuanians and Slovaks (Table 2). Thus the Poles seem to be less likely than the other two groups to be competing with people with very low skills in areas where there seem to be relatively few jobs the unqualified could get.

There is a more varied picture for the role of the four main employment sectors in the model. Most consistent are the negative effect of areas' degree of specialisation in manufacturing and the positive effect of the share of agriculture in the local economy (although the latter is weak for the Slovaks). Areas with a stronger representation of the transport/construction and the retail/hospitality sectors have proved unattractive to Slovaks and Lithuanians respectively. There is not space here to examine how far these patterns reflect differences between the three nationalities in their distribution across the sectors.

Job types

Turning to the subdivisions of A8 migrants by the type of job[5] that they have taken, Table 3 shows the results of modelling the three most popular types: retail/hospitality (comprising workers in hospitality, leisure, retail and wholesale and making up 30% of the A8 migrant total in the reference period), agriculture (including food processing workers and making up another 30%) and manufacturing (including other unskilled workers, 15%). The retail/hospitality type stands out with a model that explains 79% of its variance, whereas the R2 for the other two is below the level for all A8 migrants.

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[5] Note that the Job Title and Job Description fields in the WRS data were not coded to any standard classification system, so it was necessary to create a set of job types suitable for the analyses here. Although these job types were specifically designed as groupings of the available WRS codings, the grouping process was limited by the questionable quality of some of the coding. For example, linking the Job Title and Job Description codings produced combinations such as "Barrister – waiter" (when the former should presumably be "barista").

Table 3 here

How important is the industrial sector driver for each of these? After allowing for the effect of the other variables in the model (Table 3), there is a strong positive relationship between the LQ for migrants working in retail/hospitality and the importance of this sector in the local economy. The same applies to agriculture, though less strongly. The opposite, however, is found for manufacturing: even those working in manufacturing are tending to shy away from areas with a strong focus on this sector. On the other hand, this corresponds very much with the results of the all-migrants model seen in Table 1 (and is also found here for workers in retail/hospitality). Manufacturing areas are just not attractive to labour migrants, though agricultural workers seem to be the least put off by them. (It is possible that, given the limitations of the WRS information used to code migrants by job type,, some who should have been classed as being in agricultural jobs because they work in food processing were instead coded as having manufacturing jobs.)

As regards the other factors, overall employment rate is one of the most important drivers for all three, but its effect differs between them. A8 migrants taking on jobs in retail/hospitality and manufacturing are more likely to have moved to tight labour market areas, whereas those in agriculture have opted more for areas with lower employment rates. Secondly, while manufacturing workers are more commonly found in areas with the higher proportions of unqualified people, those in retail/hospitality have disproportionately moved to areas with lower proportions including London (see Stenning et al 2006). This has also led retail/hospitality migrants to areas with higher house prices, and means that they are much more likely than those in the other two job types here to move to areas where earlier immigrants from Eastern Europe were already living.

Conclusions

The arrival over a short period of large numbers of migrants from the A8 countries had a strong impact on the British labour market, especially in those areas where the inflow was strongest. There is evidence that the inflow did mitigate some labour supply bottlenecks, but the evidence does not show whether or not in some areas 'local' people are losing out to in-migrants in the labour market. To provide a solid foundation for that debate, this paper asked whether or not the first wave of migrants to England from the A8 countries have mainly targeted areas with tight labour markets.

The answer, on the surface, was that the A8 labour migrants did not show a significant tendency to go to labour shortage areas. This led to the second question: does labour market tightness appear to have influenced the migrants' distribution patterns *after allowing for* the effect of other potential drivers? The second question's answer is more positive: there *is* a distinct tendency for A8 migrants to go to areas with higher employment rates, once the influence of other factors has been taken into account. That said, the migrants coming to take up different types of job are not going to the same parts of the country, and are not responding in the same way to the factors which differentiate one area from another.

A substantive assessment of A8 migration on local economies will have to wait for some years until the many possible impacts have worked through. It remains true that research on migrants from abroad is restricted by an evidence base officially recognised to be inadequate (ONS and Home Office 2003). For the A8 migrants this is a particularly acute problem because there is as yet no way to estimate the numbers present in each area at one point in time, rather than just the number of in-migrants who joined a register during a period. As a result, implausibly high local estimates based on little hard evidence cannot be refuted.

What then can be said about the implications of this paper's findings? Migration patterns were found to relate to local labour supply bottlenecks in quite complex ways, with the largest nationality groups such as the Poles and the Lithuanians going to somewhat different areas. That said, there was more variation in the results of the analyses when the focus was on groups defined by job type rather than by nationality. This suggests that any policy response may need to address recruitment practices in specific sectors, rather than to target migrant streams from particular countries (such as Poland). This is easy to say but difficult to implement because the recruitment of A8 migrants is very largely through more informal private sector mechanisms such as agencies. This means that few lessons can be drawn from the much more readily regulated recruitment overseas of nurses for the National Health Service (cf. Bach 2007).

According to many local studies (eg. MacKenzie and Forde 2007), even where there is a relative shortage of qualified people migrants rarely get jobs that make use of their skills. Local skills audits could perhaps ask about the hurdles preventing migrants getting better labour market outcomes. If this was to succeed then the local economy should benefit, but a continuing inflow of migrants could continue to out-compete the local unskilled workforce. This dilemma brings us back to the need for a longer-term assessment, without which it is not possible to know whether a larger migrant inflow grows the local economy to the ultimate benefit even of those who may be displaced from employment in the short term.

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Map 1   Distribution of all A8 in-migrants across English TTWAs (May'04-June'05)
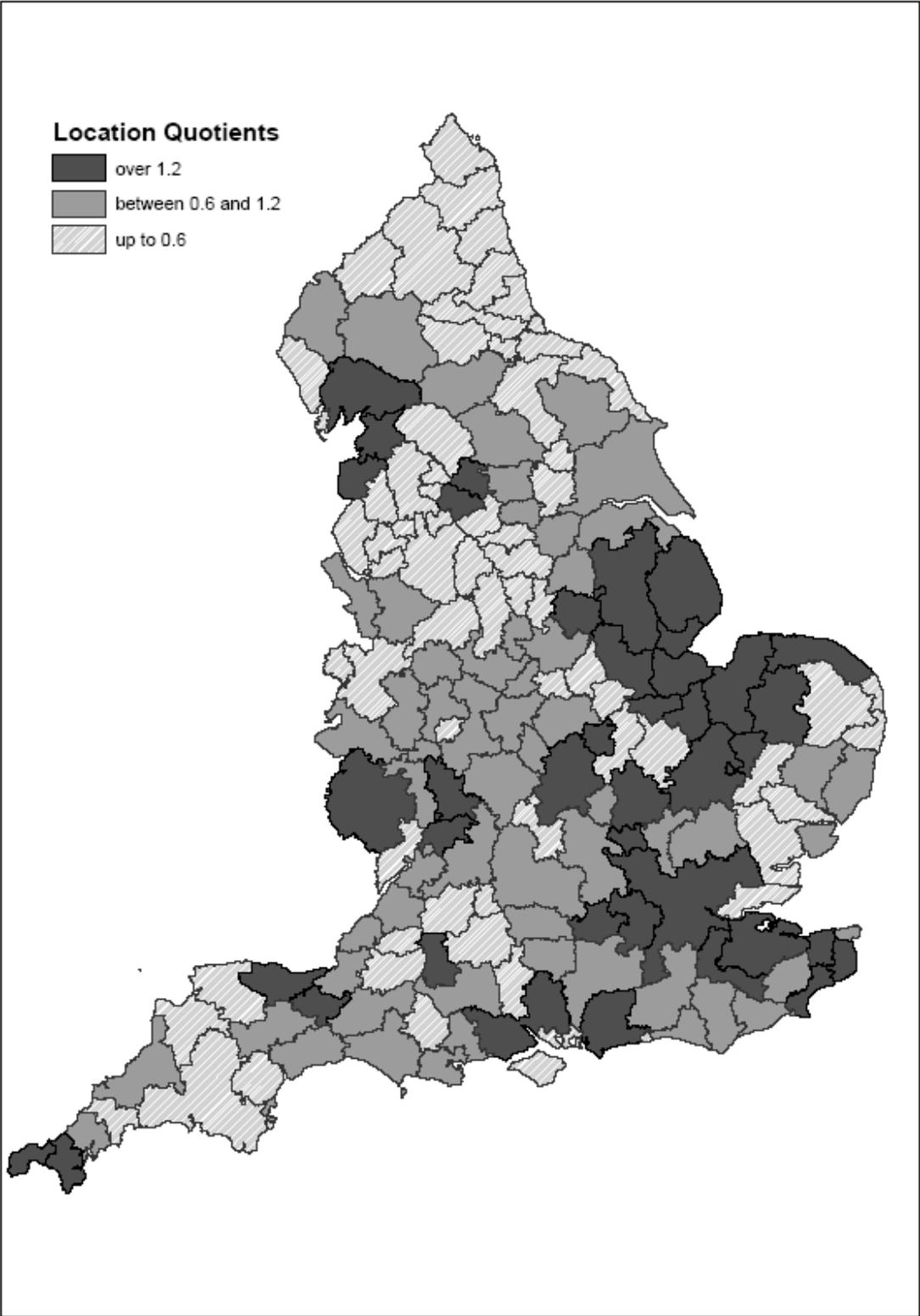
Table 1. Modelling the LQs of A8 migration, May 2004 – June 2005, across the 170 TTWAs

Explanatory factor	Relationship with A8 in-migration LQs:	Expected sign	Standardised Beta coefficient
Labour market	% 16-PA employed 2003/4	**+**	2.625
	% unqualified 16-PA employed 2003/4	**+**	-0.120
	% all 16-74 unqualified 2001	**+/-**	0.543
Industrial structure	% employed in agriculture etc 2001	**+**	0.391
	% employed in manufacturing 2001	**+**	-1.071
	% employed in construction or transport 2001	**+**	-0.078
	% employed in retail or hospitality 2001	**+**	0.604
	% employed in other sectors 2001	**-**	-3.382
Local context	Unaffordable Housing Index 2003	**-**	-0.384
	% non-White 2001	**+/-**	0.155
Previous migration	Net intra-UK migration rate 2002/3	**+**	0.157
	Net international migration rate 2002/3	**+**	0.192
	% born in East Europe 2001	**+**	0.980
	adjusted R Square values:		**0.330**

Note: the models are weighted by TTWA employment size; this ensures that the regression analyses are most concerned with finding the pattern in the values of the larger areas rather than between the much more numerous small rural areas, as they would be if the observations were not weighted. The fitted relationships are constrained to pass through the origin. All the coefficients are significant at the 0.1% level.

Table 2. Modelling the LQs of migrants from three A8 countries, May 2004 – June 2005, across the 170 TTWAs, standardised Beta coefficients

Explanatory factor	Relationship with A8 in-migration LQs:	Poland	Lithuania	Slovakia
Labour market	% 16-PA employed 2003/4	0.822	1.345	4.447
	% unqualified 16-PA employed 2003/4	0.122	-0.132	-0.734
	% all 16-74 unqualified 2001	-0.926	1.362	1.184
Industrial structure	% employed in agriculture etc 2001	0.376	0.512	0.054
	% employed in manufacturing 2001	-0.730	-1.210	-1.134
	% employed in construction or transport 2001	0.261	0.311	-1.813
	% employed in retail or hospitality 2001	1.645	-0.665	0.156
	% employed in other sectors 2001	-1.696	-1.970	-3.262
Local context	Unaffordable Housing Index 2003	-0.663	-0.146	0.057
	% non-White 2001	0.647	-0.081	0.350
Previous migration	Net intra-UK migration rate 2002/3	0.179	0.005	0.062
	Net international migration rate 2002/3	0.275	0.026	-0.001
	% born in Poland, Lithuania, Czechoslovakia (respectively)	0.304	0.906	0.937
	adjusted R Square values:	**0.336**	**0.311**	**0.249**

Note: see Table 1.

Table 3. Modelling the LQs of migrants working in three sectors, May 2004 – June 2005, across the 170 TTWAs, standardised Beta coefficients

Explanatory factor	Relationship with A8 in-migration LQs:	Retail/ hospitality	Manu-facturing	Agriculture
Labour market	% 16-PA employed 2003/4	2.091	4.489	-2.221
	% unqualified 16-PA employed 2003/4	-0.373	-0.270	0.379
	% all 16-74 unqualified 2001	-0.797	1.222	0.314
Industrial structure	% employed in agriculture etc 2001	-0.086	0.251	0.672
	% employed in manufacturing 2001	-0.996	-1.072	0.036
	% employed in construction or transport 2001	-0.922	-0.306	0.737
	% employed in retail or hospitality 2001	1.685	0.029	0.410
	% employed in other sectors 2001	-2.141	-3.787	-0.474
Local context	Unaffordable Housing Index 2003	0.566	-1.191	0.075
	% non-White 2001	0.021	0.175	-0.019
Previous migration	Net intra-UK migration rate 2002/3	-0.002	0.147	0.193
	Net international migration rate 2002/3	0.051	0.104	0.231
	% born in East Europe 2001	1.144	0.624	0.261
	adjusted R Square values:	**0.792**	**0.168**	**0.290**

Note: see Table 1.