



# The Economic Impacts of Migration on the UK Labour Market

Economics of Migration Working Paper 3

by Howard Reed and Maria Latorre

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The views expressed in this paper are those of the authors only and do not necessarily represent those of ippr, its trustees or the project's funders.

## Abbreviations and definitions

A8	The eight Central and Eastern European countries that joined the European Union in May 2004 (Poland, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia and Slovenia)
A2	Bulgaria and Romania, which joined the European Union in January 2007
A10	The countries that joined the European Union in 2004 and in 2007 (the A8 plus the A10)
DWP	Department for Work and Pensions
EU15	The 15 member countries in the European Union prior to the accession of the A10 countries, comprising Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom
GMM	Generalised Method of Moments
LAD	Local authority district
LFS	Labour Force Survey
NI	National Insurance
NIESR	National Institute for Economic and Social Research
NiGEM	NIESR Global Econometric Model
NINo	National Insurance Number
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary Least Squares
ONS	Office for National Statistics
UCL	University College London
WRS	Worker Registration Scheme

## Foreword: The Economics of Migration project

This working paper forms part of ippr's Economics of Migration project. The project aims to shape thinking around how we conceptualise the economic impacts of migration, provide new evidence about the extent and nature of those impacts in the UK, and provide new insights as to how policy might best address migration to maximise economic benefit. We hope that the project will contribute to a better-informed public debate and a more prepared policy community, better able to evaluate migration's economic contributions, and to manage them to the benefit of all.

The impacts of migration on employment and wages in the UK are often a source of political controversy. This paper includes new analysis of the labour market impacts of migration in the UK, including the period 2004-2007 which saw large scale and very rapid migration to the UK from new EU member states. The authors show that, even in this period of unprecedented immigration, the impacts of migration on the UK labour market were small. These results pre-date the current recession, but evidence suggests that migration to the UK is now declining (particularly from new EU member states) – this underlines the responsiveness of migration flows to economic changes.

We are grateful to the funders of this project: Business for New Europe, the Commission for Rural Communities, the Trades Union Congress and the UK Border Agency (Home Office). The views expressed here are those of the authors and do not necessarily represent those of the project funders.

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## Executive summary

The impact of migration on the UK labour market has become a contentious issue in public and political debate, with critics suggesting that immigration reduces wages or employment for the UK-born population. This argument has become particularly prominent since the arrival of large numbers of migrants from Central and Eastern Europe since 2004.

The effects of migration in both the short and long run are too complex for economic theory to deliver exact predictions about its impacts on employment and wages. However, the best previous evidence suggests that the overall effects of migration on wages are either insignificantly different from zero, or slightly positive. The evidence base on the effects of migration on employment in the UK, though relatively thin, suggests that the effects are not significantly different from zero. All effects noted are very small.

It might be expected that the sudden influx of migrants from the states that have acceded to the European Union since 2004 would mean more marked impacts on employment and wages at least in the short term (until the labour market adjusts). But a new regression analysis carried out for this project of the impact of migration on wages since 2001 suggests that the overall effects of migration on wages are still very small.

Our regression model suggests that a 1 percentage point increase in the share of migrants in the UK working-age population (for example, from 10 per cent to 11 per cent of the population) would reduce wages by around 0.3 per cent. By comparison, the estimated effect for the UK-born population of leaving school when aged between 17 and 19 as opposed to the minimum leaving age of 16, is to increase wages by around 10 per cent – an effect that is around 35 times larger than that caused by increasing the migrant share of the population by 1 percentage point.

Even these small effects may be transitory; only time will tell. In short, the evidence we have analysed here, plus our own empirical contributions, suggest that migration is of very little concern from a labour market perspective. There is simply no evidence to suggest that migration has any substantial negative impact on either wages or employment. Indeed it is entirely possible that there is a small positive impact on either or both of these, or no impact at all. It is, however, important to note that there may be more significant effects in some local areas, or for some groups of workers, particularly in the short term.

# 1. Introduction

## Numbers in and out

Data from the Home Office show that from 1996 to 2007 the annual inflow of migrants increased from 329,000 to 557,000 per year. The migrant outflow – either UK citizens leaving the country or non-UK citizens going back to their country of origin or to a third country – also increased but not by as much: up from about 285,000 per year in 1996 to 340,000 by 2007. Therefore net immigration into the UK increased from around 44,000 per year in 1996 to around 237,000 per year by 2007. (See ONS 2008 for more details.)

In the last 10 years migration has developed from a minor issue, a long way down the list of things that people tell opinion polls they are concerned about, into one of the leading public issues of the day. For example, Ipsos MORI's regular poll of 'the most important issues facing Britain today' shows that in April 2008, 42 per cent of respondents said that immigration or immigrants were one of the four most important issues, compared with only 6 per cent who did so in April 1998 and 27 per cent in April 2003 (MORI 2008). While some of the debate has focused on issues such as the increase in the amount of net immigration (see box), the impact of migrants on economic growth, migrants' contribution to and use of public services, and the cultural and social impact of new migrant communities, one of the key focuses of public discussion has been, and remains, the impact of migrants on the labour market – in particular the earnings and employment prospects of people of working age in the UK.

The populist impression given by groups on the right of the political spectrum (underlined by newspapers such as the *Daily Mail* and *Daily Express*, certain academics and the pressure group Migration Watch) is that migration is undercutting the wages of workers already in the UK. In particular, attention is focused on the immigrants arriving from the 'accession' countries of Central and Eastern Europe since the expansion of the European Union in 2004 (see Pollard *et al* 2008). With the sharp rise in unemployment as a result of the UK economy going into recession, the claim that migrants 'take' jobs from local people or drive down wages may take a stronger hold on the popular imagination. Recent protests at power stations under the slogan 'British jobs for British workers' give a flavour of how the public debate may become even more heated and contentious in the future.

On the other side of the debate, Government ministers, certain politicians, pro-migration think tanks, academics and pressure groups have been trying to use the existing evidence to advance the case that migrants assist the operation of the labour market by stemming labour shortages and acting as a complement to native workers. There is not much sign, however, that this argument is getting through to the public. A survey of public opinion in a number of European countries conducted by the German Marshall Fund, published in November 2008, found that 52 per cent of respondents in the UK agreed that immigrants take jobs away from native-born workers, while the average across Europe agreeing with this statement was just 34 per cent.

## Aims and structure of the paper

This paper attempts to cut through the distortions and hyperbole of recent debates. We provide a balanced and informed assessment of the best existing evidence on the effects of migration on the labour market. In addition, having conducted new empirical analysis of UK labour market data, we add to that evidence. And where the data are simply not good enough to allow us to draw firm conclusions on the extent and nature of the labour market effects of migration, we make clear that that is the case.

The format of the paper is as follows.

- Section 2 looks at what economic theory has to say about the effects of migration on the UK labour market. Does the theory deliver any strong predictions on what might happen, and are these empirically testable?
- Section 3 reviews the existing literature on the effects of migration on the UK labour market in detail. We look both at 'microeconomic' studies which use survey data to estimate the labour market impacts, and 'macro' studies which rely foremost on macroeconomic modelling to

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1. Data from the Labour Force Survey (the main survey used for labour market statistics in the UK) suggest that in the first quarter of 2008 the unemployment rate for 18- to 24-year-olds was around 12 per cent, compared with around 10 per cent in the first quarter of 2004 (ONS 2008).

calculate the long-term effects of the migrant influx on the efficiency and operation of the UK economy (and hence, indirectly, on the labour market). We also compare the UK evidence with the balance of evidence available from other countries. We highlight the technical difficulties inherent in conducting this kind of empirical analysis and the limitations of the data available in the UK.

- Section 4 introduces new empirical work designed to complement and build on the existing literature. We combine evidence from graphs and cross-tabulations of wage and employment levels by region, local authority and industrial sector with regression analysis of the determinants of wages. We use data from the Labour Force Survey, aggregate statistics from the Office for National Statistics (ONS) and data from the Department for Work and Pensions (DWP) on the number of National Insurance Numbers allocated to migrants in each area of the UK.
- Section 5 sets out the conclusions of the paper.

Finally, a note on the scope of the paper. We focus on primary labour market outcomes – wage levels and employment – mainly because these are the dimensions of labour market activity that seem to attract the most attention in popular debate, and also because this is what most of the recent empirical work in the UK has focused on. Thus we have not looked at related aspects of labour market performance such as number of hours worked or training undertaken, except insofar as these have some impact on wages or employment outcomes for the UK-born working population relative to migrants.

Our focus is on the economic impact of migration at the *national* level rather than in local labour markets. We do make some use of data from local authority districts in Section 4, but mainly to establish whether there are national correlations between the extent of migration and movements in wages and/or employment. An earlier paper from this ippr project by Max Nathan (2008) analyses the local labour market impacts of migration and is recommended reading as a companion to this paper.

We do not look at the impacts of migrants on aspects of the economy outside the labour market – for example the public finances, housing market or public services such as health, education and social housing. Past ippr work (Cooley *et al* 2005) and other papers from this project examine many of these issues.



## 2. What economic theory tells us about the labour market impacts of migration

### Theory: Migrants and wages

There are two main rationales for the often-voiced belief that migrants might reduce the earnings of UK-born workers:

- One is based on the idea that migrants undercut UK workers' earnings.
- The other is based on the idea that migrants increase the aggregate supply of labour in the UK, which leads to a reduction in wage levels, affecting both UK-born and migrant workers.

In practice these two rationales are often linked together in popular discourse.

### The 'undercutting' argument

The idea that migrants will 'undercut' UK workers arises from the perception that they will be prepared to do certain types of work for a lower hourly wage than the prevailing UK 'going rate' for the job. This is rationalised on two grounds: first, that immigrants are happy to put up with lower standards of living in the UK than UK-born workers because they are used to having less and are only here on a temporary basis; and second, that many migrants send a good proportion of their earnings home to their country of origin as remittances (for example, to support family members) and this money 'goes further' in the country of origin than it would do in the UK.

There are two obvious grounds for criticism of this view in the case of A8 migrants. One is that the more 'permanent' a migrant is – the more likely he or she is to settle in the UK – the weaker this argument is. Migrants who are here on a long-term basis, and who have families with them, will face similar cost levels to a UK-born worker. The other is that as price and wage levels increase in the countries that joined the EU in 2004 (the 'A8') the money goes less far in the country of origin so migrants will be less and less able to afford to 'undercut' UK-born workers. There is good evidence that the latter is now happening; for example, between early 2004 and the start of 2009, Sterling fell by about 35 per cent against the Polish zloty, and average real wages increased in Poland compared with the UK.

However, we can object to the 'undercutting' argument on more fundamental grounds. Conventional economic theory relates wages to productivity, not the cost of living; in a reasonably competitive labour market, the 'marginal productivity' theory of wages argues that workers are paid the value of what they produce. If this is correct, then migrant workers who are as productive as UK-born workers should be paid equal amounts.

There are certainly possible scenarios where workers might be paid *less* than the value of what they produce – for example, if the labour market is not fully competitive, or if workers have poor information on alternative job offers available, either of which situations could lead to workers being underpaid by employers. However, it seems unlikely that these situations arise systematically across the economy in a way that disadvantages migrant workers compared with UK-born workers.<sup>2</sup> It may be possible that migrants have lower living costs which means they are able to make a living doing jobs that are so poorly paid that UK-born workers feel they cannot afford to do them and are thus unwilling to take them; but this is to compare low-paid jobs with higher-paid jobs which are not the same thing – it does not necessarily mean that migrants undercut UK workers for any individual type of job. Also, the National Minimum Wage limits the scope for very low paid employment in the UK (provided it is enforced properly).

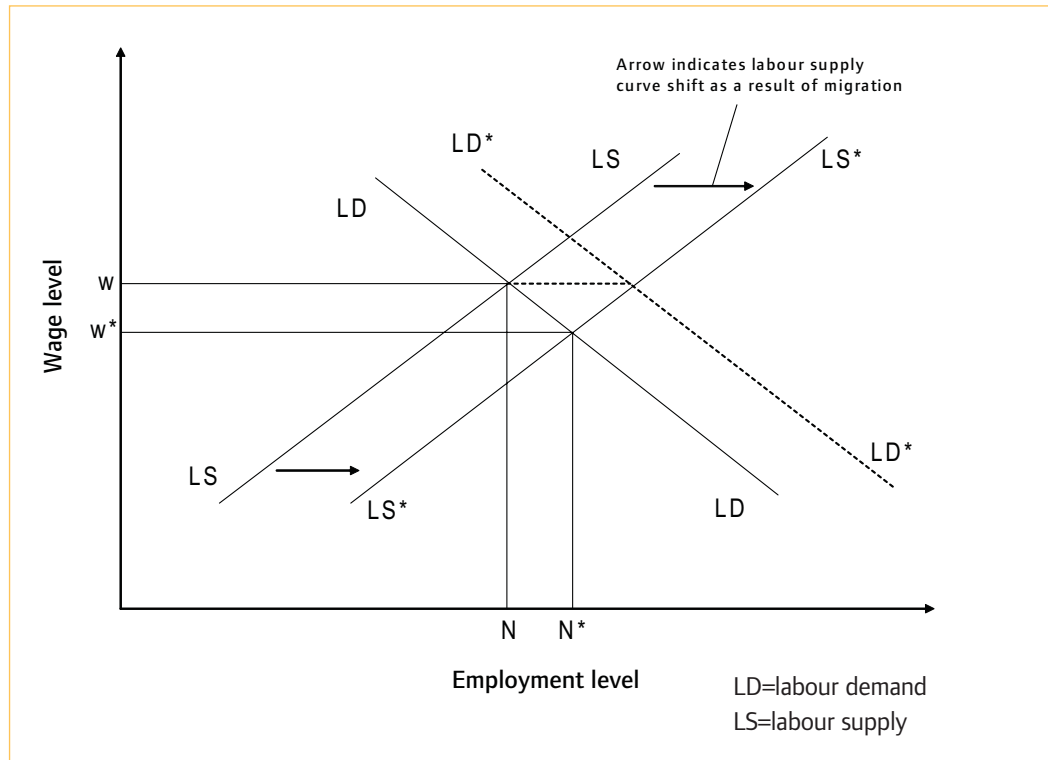
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2. An exception could be irregular (illegal) migrants, who are more likely to be in a vulnerable position as they are not subject to the same safeguards of the minimum wage and workplace safety standards that apply to legitimate workers. This is certainly an important issue and will be covered in a separate paper in this project.

### The 'labour supply shift' argument

This second argument is based on the simple labour supply/demand diagram provided in Figure 2.1. Initially the (upward-sloping) labour supply curve is at LS whereas the (downward sloping) labour demand curve is at LD, with the equilibrium wage in the labour market at  $w$ . An influx of migrants corresponds to an outward shift in the supply curve to  $LS^*$ , which (assuming the labour demand curve is not changed) reduces the equilibrium wage to  $w^*$ . This shift is consistent with the marginal productivity theory of wage determination discussed earlier, the implication being that labour productivity per worker declines as the supply curve shifts outwards.

**Figure 2.1.**  
Stylised depiction of the 'supply shift' view of migration's effect on wages



The main problem with the argument summarised in Figure 2.1 is that the model being used is too simplistic to deliver any reliable insight into the effects of migration on wages. For one thing, the assumption that an increase in labour supply does not affect labour demand is invalid. An increase in the size of the UK labour force should increase demand for goods and services<sup>3</sup>, which should in turn shift the *demand* curve of labour outwards. (For example, if the labour demand curve LD in Figure 2.1 were to shift outwards to the dotted line LD\*, the market wage level would go back up to  $w$  and wages would be back where they started.)

The analysis makes more sense when applied to a *specific sector* because the assumption that the increase in labour supply in that sector has a negligible effect on overall labour demand has more chance of holding. Plumbing might be one example of this. But then the question of economic rents becomes important. Workers in a sector can earn economic rents if there is a supply shortage that

3. A more sophisticated version of this argument points out that, because in aggregate migrants remit a proportion of their wages back to their home countries, the shift in labour supply will be only partial – and hence there would still be some reduction in UK wage levels. This is possible but the argument ignores any impact of the increased remittances on demand for UK exports which could also increase, thus shifting labour demand outwards. In the end, the 'general equilibrium' impacts of migration – taking into account all the knock-on and feedback effects on markets in the UK and abroad – are very hard to work out.

pushes wages above their long-run ‘equilibrium’ level (whereby wages are equal to the marginal product of labour). The increased wage creates a market signal that the returns to this occupation are (currently) above average, which should induce a flow of extra workers into that sector – either through re-skilling domestic workers, or from outside the UK economy (that is, migration). So, in fact, it may be that immigration is just increasing the speed of a process – the return of plumbers’ wages to long-term equilibrium levels – which would have happened anyway by another route. In other words it may be that immigration is making the labour market work more efficiently.

Additionally the ‘supply shift’ view fails to consider several other important features of the labour market. One is the *distribution* of wages: it is certainly not the case that there is a single wage rate in the UK, even within particular occupations or industries. Another key issue is the extent to which migrants are substitutes or complements for UK-born workers.

Finally, it is important to consider the way that the stock of capital in the economy adjusts to take account of changes in the supply of labour. As we show in Section 3, taking any (or all) of these additional factors into account can completely change the theoretical predictions of what an increase in migration does to the wage level (or levels). For example, a recent theoretical model by Dustmann *et al* (2008; building on earlier theoretical contributions by Altonji and Card 1991 and Ottaviano and Peri 2006) shows that if production is based on a combination of capital and different skill groups of labour, and if capital is supplied at a price fixed on international markets, then immigration will have a *positive* average wage effect as long as immigrants differ from natives in their skill composition. However, UK-born workers who are more similar than average to immigrants in terms of their skills could experience reductions in wages, even though the average effect is positive.

### Theory: Migrants and employment

The most common argument for increased immigration having a negative effect on the employment prospects of working-age people already living in the UK is that migrants displace existing workers. This goes hand in hand with the argument examined above that migrants undercut the wages of those existing workers, which we have shown does not correspond to the predictions of basic economic theory.

Opponents of immigration certainly cannot have it both ways. The ‘supply shift’ argument for wage decreases would actually lead to employment increases if it were a realistic depiction of the real UK labour market. In Figure 2.1 above, as supply shifts from LS to LS\* and the wage declines from  $w$  to  $w^*$ , employment increases from  $N$  to  $N^*$ . In other words, one of the key theories advanced by opponents of large-scale migration, who tend to argue that immigration has an adverse impact on wages and employment, would actually deliver *positive* results for employment.<sup>4</sup>

This aside, the view that increased net immigration causes reductions in employment for workers already based in the UK is not backed up by any kind of sophisticated economic theory. If there were a fixed number of jobs on offer in the UK, regardless of the number of working-age people competing for them in the labour market it would indeed be the case that net immigration would increase the level of competition for these jobs and could lead to some of the existing workforce being displaced by migrants. However, there is no reason why there should be a fixed number of jobs. Like any other market economy, the number of jobs available in the UK is a function of the demand for labour, which is in turn a function of the number of people actually living in the UK. Migration may affect the mix of goods demanded in the UK – migrants might have different consumption preferences and income levels than people already in the UK, but overall an increased UK population, whether it arises from net immigration or from other demographic shifts (such as an increased birthrate), should lead to increased employment through increased demand for labour.

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4. Note that opponents of additional migration to the UK often assert that because the distance between  $N$  and  $N^*$  is less than the distance between LS and LS\*, an increase in migration reduces employment rates. However, this assumes that the labour demand curve LD will remain static, which is an unrealistic assumption, as discussed earlier. If the labour demand curve shifts outwards to LD\* there will be no adverse impact on employment.

There are three caveats to this optimistic picture, however. The first is that labour markets may not adjust immediately to unanticipated increases in labour supply (that is, an increase in the number of workers available in the UK). The numbers of immigrants from the A8 countries exceeded by a substantial amount the projections the UK Government made before 2004<sup>5</sup>, which means that it is plausible that UK employers did not anticipate such a large inflow. In these circumstances, it would have not have been surprising were the UK labour market to have been in temporary ‘disequilibrium’ in the initial period after 2004, with unemployment somewhat higher than its long-term level. However, unemployment actually remained very low in the initial period following 2004, and has only risen more recently, for reasons that appear to be entirely unrelated to A8 migration.

Secondly, if workers from Poland and other A8 countries are well-matched to vacancies that exist in the labour market – in the sense of having the skills required to do the jobs, and there being a shortage of UK-born workers with the skills required (at prevailing wage levels) – then it may be cheaper and faster for UK employers to hire A8 workers to fill vacancies than to train up UK-based workers who lack the skills. This could give rise to a situation where unskilled UK workers are at a disadvantage compared with certain categories of A8 migrant. Note, however, that this does *not* imply that A8 workers are *displacing* UK workers because if the UK workers receive training and assistance then there is no reason why the pool of UK employment cannot expand to accommodate *both* the UK unemployed and the A8 migrants looking for jobs. As stated above, the UK is a flexible economy and there is no *a priori* limit to the number of people that can be employed.

What this discussion does make clear is that the UK government should not use the ready availability of well-trained labour from the A8, A2, or other countries outside the EU as a substitute for labour market policy to assist the long-term unemployed and unskilled in finding work. (There is no evidence that the Government is doing this.)

Finally, it is likely to be the case, at least in the short run, that migrants will have different preferences for consumer goods to people already in the UK. If these preferences are for imports, or for relatively capital-intensive goods and services, then the net effect on employment for UK workers could be negative. However, these effects are likely to be very small, if they occur at all (and if migrants preferred relatively *labour*-intensive goods and services then there could be a positive effect on employment).

To conclude, we quote from Dustmann *et al* (2003) who give an effective summary of the overall implications of economic theory for the labour market outcomes of immigration – or, more precisely, the *lack* of overall implications:

‘A variety of possible outcomes are compatible with economic theory. Immigration may depress wages and employment of natives. However, it is by no means inconsistent with economic theory to think that long run responses to immigration may involve no effect, or that immigration increases the wages of workers complementary to immigrant labour.’ (p. 15)

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5. Although, as Pollard *et al* (2008) explain, partly this was because the Government’s projections assumed that all EU15 countries would allow free movement to workers from the A8 countries with immediate effect from 2004. In the event, only Ireland, Sweden and the UK did so. In these circumstances it is not surprising that the migrant inflow from the A8 countries exceeded previous expectations.

### 3. Existing evidence on the labour market impacts of migration

#### The wage effects of migration

The two most rigorous pieces of microeconomic analysis of the impact of migration on wages in the UK, which take account of the more sophisticated models outlined above, are by teams of UK-based academics. We examine these in some detail as they represent the ‘gold standard’ of currently available research. We also compare the results with the best available studies for other countries, particularly elsewhere in Europe and the United States.

First, we summarise evidence from the Centre for the Research and Analysis of Migration (CReAM) at University College London. CReAM has produced a series of research papers over the last few years including a report for the Home Office by Dustmann, Preston and Wadsworth (2003) looking at the labour market performance of immigrants in the UK, and a report for the Low Pay Commission by Dustmann, Frattini and Preston (2007) revisiting the same issues with particular reference to enforcement of the National Minimum Wage; this has since been updated by a 2008 working paper, which we focus on here as it is the most up-to-date evidence available. The paper considers the impact of immigration on wages *across the whole wage distribution* as well as on the average wage. This is, of course, vital for an understanding of how migration might affect the coverage of the National Minimum Wage.

The dataset used is the Labour Force Survey (LFS), which collects detailed information on employment and earnings for a sample of households living at private addresses in Great Britain. The sample size is about 60,000 responding households in Great Britain every quarter, representing about 0.2 per cent of the population. The analysis splits Great Britain into 17 regions and looks at the difference between the distribution of earnings (controlling for other characteristics that affect earnings) and the proportion of migrants entering each region over time.

Information from the 1991 Census on immigrants’ geographical distribution, and lags of the LFS data, are used to construct ‘instrumental variables’ to control for the fact that migrants’ choice of location is an ‘endogenous’ variable (that is, migrants choose where in the UK to work, subject to prevailing labour market conditions, rather than their location being determined by outside factors). The model uses *changes* in wages over time as the dependent variable and regresses this on control variables (including the age and skill distribution of workers), the ratio of immigrants to natives at each time period and time-specific fixed effects. The settlement pattern of previous immigrants is used as an instrument for locational choice of current migrants.

Contrary to the more pessimistic scenarios examined in the previous section, Dustmann *et al’s* results show a *positive* impact of immigration on natives’ average wages *overall*, but a negative impact lower down the wage distribution. The central estimate is that an increase in the foreign population of 1 per cent of the native population leads to an increase of between 0.3 and 0.4 per cent in average wages. Over the sample period used (1997–2005) the average yearly increase in the immigrant/native ratio was about 0.35 per cent and average annual wage growth just over 3 per cent, meaning that immigration is estimated to have contributed about 3.5 to 4.5 per cent of annual real wage growth – or an increase of about one penny per year in the hourly wage in real terms. This is a small effect but it is positive and statistically significant.

Turning to the distributional effects, the results suggest that at the fifth percentile of the wage distribution (that is, very near the bottom of the distribution – only 5/100ths of the way up), the impact on wages of a 1 per cent increase in total population size arising from immigration is a *decrease* of 0.6 per cent; at the tenth percentile it is a decrease of 0.4 per cent. At the median (the middle of the wage distribution) it is an increase of 0.7 per cent and at the ninetieth percentile, 0.5 per cent.

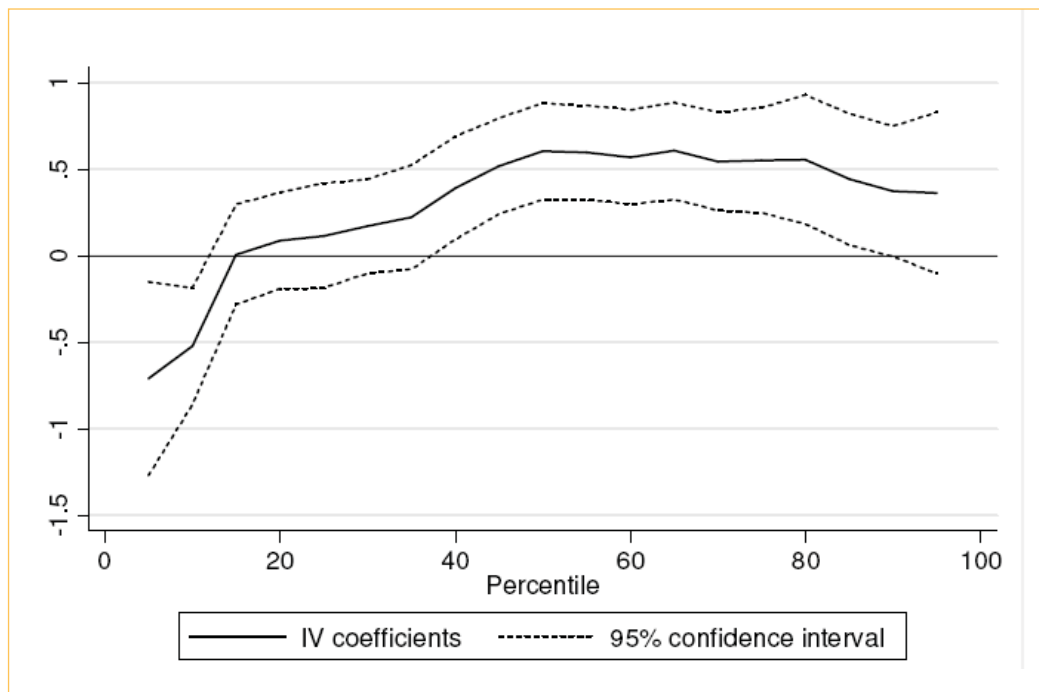
Figure 3.1 shows Dustmann *et al’s* estimated pattern of wage impacts across the distribution of wages, revealing a negative impact up to about the fifteenth percentile of the wage distribution, but a positive impact above that. So to the extent that there is a negative impact of immigration on wages,

this is felt at the bottom of the wage distribution. Dustmann *et al* suggest that this may be because there is a greater concentration of recent immigrants at the bottom of the UK wage distribution than anywhere else, and this puts a slight downward pressure on wages at the bottom end compared with the top.

**Figure 3.1.**  
Estimated impacts of migration on wages at different points on the wage distribution

Source: Dustmann *et al* 2008

Note: Vertical axis scale shows impact on average wage levels (in percentage terms) of a 1 per cent increase in total population size arising from migration



The second major empirical study we look at comes from the Centre for Economic Performance at the London School of Economics, one of the leading empirical research institutions on the UK economy. As with the Dustmann *et al* paper (2008), Manacorda, Manning and Wadsworth (2006) look at the impact of immigration on the structure of wages. The model they use allows for *imperfect substitutability* between migrants and UK-born workers – that is, it takes account of the notion that migrants’ labour market skills may complement, rather than substitute for, UK-born workers. The estimation procedure allows the degree of complementarity (or substitutability) between migrants and UK-born workers to be estimated as part of the results.

The main data used in Manacorda *et al*’s study are from the Labour Force Survey, as with the Dustmann *et al* paper. A longer time period is used – 1975 to 2005 – but as the LFS does not contain wage information before 1992, wage information from the General Household Survey (GHS) has to be used instead. The basic unit of estimation in this model is a cell defined by age, skill and immigrant status rather than an individual – which allows data from more than one dataset to be spliced together in this way.

The main result shown by the paper is that a 10 percentage point rise in the immigrant share across the economy (if the new immigrants had the same profile of skills and age as the current non-UK-born population) is predicted to have no significant effect on the real wages of natives other than to reduce the average wages of the UK’s existing stock of immigrants by 1.9 per cent. However, within these skill categories there is imperfect substitutability – so for example, an increase in the share of high-school-level-educated immigrants does not affect to any great degree the wages of university graduate immigrants.

The final piece of research we look at in this section is a paper by Stephen Nickell of Nuffield College, Oxford and Jumana Salaheen of the Bank of England (Nickell and Salaheen 2008), which takes a rather different approach from the papers by Dustmann *et al* and Manacorda *et al* examined above. Nickell and Salaheen look at the extent of immigration and its possible impact on wages within occupational groups. Their rationale for doing this is that most previous research on wage effects has

looked at the wage effects of immigration among the low skilled, but it is hard to measure the education levels of migrants because of the difficulty of comparing educational qualifications across countries.

Nickell and Salaheen present evidence using the Labour Force Survey from 1992 to 2005 inclusive, broken down into 'cells' by occupation (25 two-digit SOC 2000 occupations) and region (the 11 Government Office regions). Because the LFS's occupational definition changed from SOC 1990 to SOC 2000 in 2001, a 'transition matrix' methodology is used to convert SOC 1990 to SOC 2000 to produce consistent occupational information for the years 1992 to 2000. The regression model used here includes controls for the average ages of immigrants and of natives in each cell, and the share of the native population with different levels of qualifications. Estimation of the model parameters produces a coefficient of around -0.04 on the immigrant/native ratio; this coefficient is marginally significant at the 95 per cent confidence level. This would suggest that a 10 percentage point rise in the immigrant share across the economy would reduce average wages by around 0.4 per cent – a very small effect.

Nickell and Salaheen also estimate a dynamic version of their model (including lagged terms for the explanatory variables) separately for different occupational groups, and find evidence of larger negative effects for specific occupational groups. For example, in the semi-skilled and unskilled services sector they find that a 10 percentage point rise in the immigrant share is predicted to reduce average wages by 5 per cent.

Interestingly, therefore, the research by Nickell and Salaheen suggests that once the occupational structure of the labour market is taken into account, immigration has a *negative* effect on wages – but again, the effect is small in size.

#### **Summary of UK research findings**

Overall, the best UK research done so far seems to suggest that there are, at most, only small negative impacts from the increased migration we have seen in the last decade, at least for average wages for workers in the UK. The effects may be most pronounced (although still small) for *low-paid* workers already in the UK, for migrants who entered the UK prior to this period, and for low-skilled service sector workers.

It is important to recognise, however, just how small these effects are compared with other factors that might affect wage levels in the UK. Even a large influx of migrant workers is only likely to affect average hourly wages in the UK by a few pence an hour, either upwards or downwards. Compared with the impact of changes to the tax system (for example), the effects of immigration are negligible, given estimates of the size we have looked at here.

#### **Research from other countries**

The balance of research on the impact of migration on wages from countries other than the UK finds that the wage impact of migration is either modest in size, or zero.<sup>6</sup> An extensive review of previous evidence on 165 wage impact studies for many OECD countries (Longhi *et al* 2005) finds that on average an increase of one percentage point in the share of immigrants in the labour force lowers wages by around 0.12 per cent. The largest effects are found in the US by Borjas (2005) who finds a negative wage effect of around 0.4 per cent, although this conclusion is disputed by Card (2005).

If anything, the recent UK studies examined in detail above give estimated impacts of immigration on wages that are more positive than indicated from other studies. This fits in well with another recent OECD analysis by Jean and Jimenez (2007) suggesting that countries with flexible labour and product

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6. Much of the evidence from abroad comes from the US – see, for example, Lalonde and Topel 1991, Card 2001, 2005, Borjas 2003, Angrist and Kugler 2003, Ottaviano and Peri 2006. Evidence from other countries includes Pischke and Velling 1997 for Germany, Carrington and de Lima 1996 for Portugal and Cohen-Goldner and Paserman 2004 for Israel.

markets are likely to benefit more from immigration in terms of wages as they are better able to accommodate the new influx of workers through expansion of employment and the number of firms in the economy, and adjustments to the capital stock.

### **Existing microeconomic evidence on the impact of migration on employment**

There is, if anything, even less academic evidence on the impact of migration on employment in the UK than there is for wages. The best known recent paper on the subject is again from CReAM at UCL: Dustmann, Fabbri and Preston (2005) examine the impact of migration on employment using data from the LFS between 1983 and 2000 (they are able to use a much longer sample period than for their wages study in Dustmann *et al* 2007 because the LFS only contains wage information from 1992 onwards, but has consistently defined employment data from 1983 onwards). Employment is estimated as a function of the ratio of immigrant to native population in each region, broken down by skill and age group, using a regression technique called Generalised Method of Moments (GMM) estimators to correct for measurement error and ‘simultaneity bias’ (the fact that migrants’ choices over where to work may be influenced by the level of employment in each region of the UK, resulting in reverse causality running from employment to migration, which can bias the regression results).

The results from the GMM estimation suggest that an increase in immigration of 1 per cent of the native population would lead to a decrease of 0.07 percentage points in the native employment rate. This is a very small estimate, and is in any case not statistically significant. A subsequent empirical specification which breaks down the sample by education group into those with advanced qualifications (A-levels, degrees and equivalents), those with intermediate qualifications (GCSEs and equivalents) and the unqualified suggests small negative effects (of around -0.18 percentage points) for the intermediate group, with positive effects for the group with advanced qualifications. No significant effect is found for the unqualified group. In short, the employment effects on average seem to be very small and frequently fall short of statistical significance.

The other best known recent study of the effects of migration on employment comes from economists working within the UK civil service. Gilpin *et al* (2006) look specifically at the impact of A8 migration since 2004 on employment of workers already in the UK in 2004 and since. The analysis builds on a previous DWP study by Portes and French (2005). Obviously this paper was written at a very early stage after the A8 accession and so the results may be subject to change if the analysis were redone at a subsequent date. The initial motivation for the paper was that between January and December 2005 benefit-claimant unemployment in the UK rose by around 100,000 and it was suggested by some commentators that part of the explanation for this rise was the inflow of migrants from the new EU member states.

Gilpin *et al* use data from the UK Labour Force Survey and the Worker Registration Scheme (WRS), on which all new migrants from the EU accession countries have to register on arrival in the UK. Using data at the local authority district (LAD) level, they show descriptive evidence that there is no significant correlation between the percentage point change in the claimant-count unemployment and the concentration of WRS-registered workers in local authorities. Their econometric analysis of employment rates uses a reduced form equation at LAD level which relates changes in unemployment to the extent of migration, average wages, and individual and time-fixed effects plus other control variables that affect labour supply such as the proportion of the population who are women, the proportion from ethnic minorities and the number of immigrants from outside the A8. The proportion of migrants aged 16 or under in the population is used as an ‘instrumental variable’ to control for the endogeneity of employment choices.

Using this technique, Gilpin *et al* estimate that the effect of a 1 per cent increase in the percentage of A8 migrants in the working-age population is to increase the unemployment rate by around 0.04 per cent – again, a very small amount<sup>7</sup>. Additionally, this estimate is not

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7. Gilpin *et al* acknowledge problems with this instrument because tests show that it has little explanatory power, and uses lags of the unemployment variable as an alternative. This produces a larger coefficient estimate – 0.16 – but the instrument fails standard specification tests.



statistically significant<sup>8</sup>. The authors conclude that ‘despite anecdotal evidence, there is no discernible statistical evidence which supports the view that the inflow of A8 migrants is contributing to a rise in claimant unemployment in the UK’ (p. 49).

A recent update of the DWP research by Lemos and Portes (2008) extends the model of Gilpin *et al* in three ways: it uses a longer run of data, from May 2004 to May 2006; uses data on claimants of Jobseeker’s Allowance to examine whether migration had differential impacts for different occupational and demographic groups; and adds more controls to account for the impact of migration from the A8 countries.

Consistent with the earlier DWP research, Lemos and Portes find no evidence that migration from the A8 countries has had any adverse impact on native workers. They also find no impact of migration on claimant unemployment, even for possibly vulnerable groups such as younger workers or the lower skilled<sup>9</sup>.

In short, the best available UK microeconomic evidence on the effects of migration on employment finds either no effect at all, or very small negative effects.

Econometric evidence on the employment effects of migration from the rest of the OECD is summarised by Jean and Jiminez (2007). They collate 165 estimates from 9 recent studies for various OECD countries suggesting that the average estimated impact of a 1 per cent increase in the number of immigrants in a national economy is -0.02 per cent. For low-skilled workers the effects are larger on average, at -0.04 per cent, and for existing immigrants the effects average -0.05 per cent. Overall, the results for the employment effect of migration from other countries seem to be in line with the best evidence from the UK. As with the wage effects assessed earlier, these effects are very small in size. To illustrate, the Office for National Statistics estimates that total employment in the UK over the three months stood at 29.56 million. The estimates from Gilpin *et al* (2006) suggest that a 1 percentage point increase in the share of migrants in the UK’s working-age population (a significant increase) would reduce employment for people of working age already in the UK by around 6,000. This is tiny in the context of the overall employment total.

### Evidence from macroeconomic modelling

The main UK-based macroeconomic research institution which has done research into the labour market effects of immigration is the National Institute for Economic and Social Research (NIESR)<sup>10</sup>. Their studies differ from the microeconomic research discussed in the previous section as they use a macro-model of the UK economy to simulate the impact of increased migration into the UK on key output variables such as output, employment and inflation. The model embodies more assumptions than the microeconomic studies because its objectives are a lot more ambitious. The results are correspondingly more broad, but also open to criticism on the grounds that the model used is only a simplified approximation of the way the UK labour market actually works. Here we focus on what the model has to say about labour market outcomes.

NIESR has used its NiGEM (NIESR Global Econometric Model) macro-model to simulate the economic impact of increased immigration from Poland to the UK (an extra 1 million Poles) (Barrell *et al* 2006).

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8. An alternative specification using Government Office regions as the unit of analysis rather than LADs produces higher coefficients for the long-run effects of between 0.27 and 0.93 (using Instrumental Variable methods). However, this specification is flawed because it does not control for regional and macro shocks properly and so these should not be taken as reliable estimates.

9. Lemos and Portes also examine the impact of migration on wages both at a local level and at different points of the earnings distribution using the Annual Survey of Hours and Earnings (ASHE). They find no significant impact of migration on wages, even for the lowest skilled workers.

10. It is probable that the UK Treasury has done some modelling of the labour market effects of immigration as well but this has never been released publicly.

The simulations assume that the Bank of England and European Central Bank set interest rates to target inflation, and that the capital stock in the UK does not adjust in line with the labour force in the short term (because housing stock and infrastructure are difficult to increase over that time horizon).

Importantly, the NIESR work assumes that the increase in migration is unanticipated. The results show that in the short run (the first two to three years) there is an increase in unemployment because companies do not anticipate the increase in the size of the labour force arising from immigration and hence do not increase their demand for labour. This has a temporary impact on the rate of wage increases, and, in turn, reduces price inflation. In the medium term, the fact that labour is relatively cheap compared with capital leads to firms hiring more labour, which increases domestic demand for goods and services; these two effects reduce unemployment. In the long term unemployment, productivity and inflation revert to something very close to their initial levels.

Kirby and Riley (2006) use the NiGEM model to simulate the effect of increases in population between 2004 and 2026 (mostly arising from migration) on the UK economy. The Government Actuary's Department figures which this study uses, from 2004 (since superseded) predicted that the UK working-age population would increase by 1 per cent by 2012 relative to its 2004 level. Kirby and Riley's simulations suggest that between 2010 and 2014 unemployment will be 0.06 percentage points higher as a result of the additional population, whereas inflation will be 0.1 per cent points lower and the rate of GDP growth 0.11 per cent points higher. In short, the results from NiGEM suggest that the impact of immigration on wages and employment in a macroeconomic context is small.

Economists at the Bank of England have also analysed the effect of increased migration in a macroeconomic framework. Based on previous analysis by Blanchflower and Shadforth (2007), Blanchflower (2007) argues that additional inflows of workers from the A10 countries have reduced the equilibrium rate of unemployment<sup>11</sup> in the UK by increasing the 'fear' of unemployment among existing UK workers. According to Blanchflower, this leads to a moderation in wage demands and lowers wage and price inflation, allowing the UK to grow faster than would otherwise be the case.

But there seems to be a contradiction between the prediction from Blanchflower's model that increased immigration leads to lower wage inflation, and the microeconomic evidence examined earlier in this report, which shows almost no measurable impact of migration on wage levels. One possible resolution to this contradiction is that if wage and price inflation are both reduced by the same amount (in percentage points), real wages (that is, wages in constant price terms) would be unaffected. As the microeconomic studies invariably focus on real wages, it is quite possible that the microeconomic models and macro-models of the type used by Blanchflower are looking at two different issues. This is an intriguing possibility but one that has not been analysed in any detail in the literature so far, to our knowledge.

To summarise, the evidence from macroeconomic modelling of the effects of migration on the UK market concurs with the emerging picture from the microeconomic evidence in that the effects of migration never seem to be very large. The macro evidence also offers additional insights: first, that the effects of unanticipated increases in migration into the UK are likely to diminish over time, and second, that migration may make monetary policy easier by moderating wage demands and hence reducing inflationary pressure in the economy. These are useful supplementary points which complement the message from the microeconomic studies examined earlier.

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11. Sometimes the equilibrium rate of unemployment is called the 'natural rate' of unemployment or the NAIRU (Non-Accelerating Inflation Rate of Unemployment). The model of unemployment and wage determination underlying this kind of macro-analysis stipulates that workers bargain over wages, and the lower unemployment is, the less likely they are to be restrained in their wage demands.

### The difficulties of researching the labour market impacts of migration

It is important to understand that the difficulties of getting reliable results on the labour market impacts of migration are not, in most cases, due to the deficiencies or lack of imagination of researchers, but instead are a result of conceptual difficulties and data limitations. Most research on the labour market impacts of migration attempts to construct ‘the counterfactual’ – that is, what the labour market outcomes for workers in the UK would have been *in the absence of migration*.

This is usually done by dividing the national labour market into smaller geographical areas which experience different amounts of immigration and comparing wages or employment levels across these different areas (usually in a ‘before and after’ manner). But this gives rise to a fundamental problem, that immigration is not an exogenous variable. Immigrants are likely to ‘self-select’ into areas that are doing well economically (to ‘go where the jobs are’). Also, UK-born workers or earlier immigrants may leave areas which have experienced high in-migration (Borjas [2003] suggests that out-migration of native workers is an important phenomenon in the US, although Card [2005] disagrees). Sometimes researchers subdivide the labour market according to non-geographical attributes – for example, the age and education level of workers – to get around the problem of geographical movements by native workers. However, this trades one problem for another: there is considerable evidence that many UK immigrants, particularly the new wave of arrivals from the A10, are not in jobs that fully utilise their skills – they are ‘downskilled’. This means that it cannot be assumed that subdividing the labour market by skill level yields ‘sub-markets’ that are isolated from each other in any real sense. Migrant workers are likely to move between skill levels, invalidating the assumptions necessary to construct a valid counterfactual. In practice, econometricians can use a variety of techniques to address these problems as best they can, but none is perfect.

Additionally, the data available to do this kind of work in the UK suffer from deficiencies. For example, the sample size of the Labour Force Survey, the largest UK dataset that contains details of wages and labour market status as well as control variables that can be used in regression analysis, is not large enough to enable statistically robust samples of migrants to be drawn at local authority level. This makes it difficult to look at local labour market effects using LFS data on individuals in the labour market<sup>12</sup>. As an alternative, we use the LFS data subdivided by region and occupation, supplemented with some innovative analysis of data on National Insurance registrations of migrants at local authority level (provided by the Department of Work and Pensions); see the next section.

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12. The Office for National Statistics does publish data on average earnings, employment and unemployment rates disaggregated to local area level, and these can be used as an alternative source of data for estimating local effects – for example, Lemos and Portes (2008) use this local area data combined with data on migrants from the Worker Registration Scheme to look at the employment effects of migration. However, the time series available for the WRS is not very long at the time of writing, which makes it unsuitable (at present) for the kind of wage regression analysis we do in this paper. Also, the WRS covers only migrant workers from the countries that joined the EU after 2003, rather than all countries.

## 4. New evidence on the labour market impacts of migration

This section presents new evidence on the labour market impact of migration to supplement the previous empirical analyses that we discussed in Section 3. Our aim is to provide as up-to-date a picture as possible of what the impact of recent migration has been – including the recent wave of A8 and A2 migrants on the UK labour market since the expansion of the EU in 2004 – using data running through to the end of 2007.

The main data source we use for our empirical work is the UK Labour Force Survey, which we use to distinguish between the UK-born and foreign-born people in the sample. As a result our definition of ‘migrant’ is a wide one, encompassing anyone who was not born in the UK. Some specific analysis later in this section looks at the correlation between the length of time foreign-born people have spent in the UK and their wage levels. All the results here are for the working-age population, defined here as people aged between age 16 and 64. We use data from spring 2000 to winter 2007 inclusive, encompassing the few years before the A8 accession countries entered the EU in 2004, and the years since. Note that these data precede the current downturn in the labour market, and so our results may not fully reflect current labour market conditions. We return to this issue in the Conclusion.

Additionally, we also make use of data on the number of National Insurance registrations, which the DWP collects. This has the advantage of being available at local authority level, whereas the standard public release LFS data set does not contain local authority identifiers. We analyse the National Insurance Number (NINo) data later in this section.

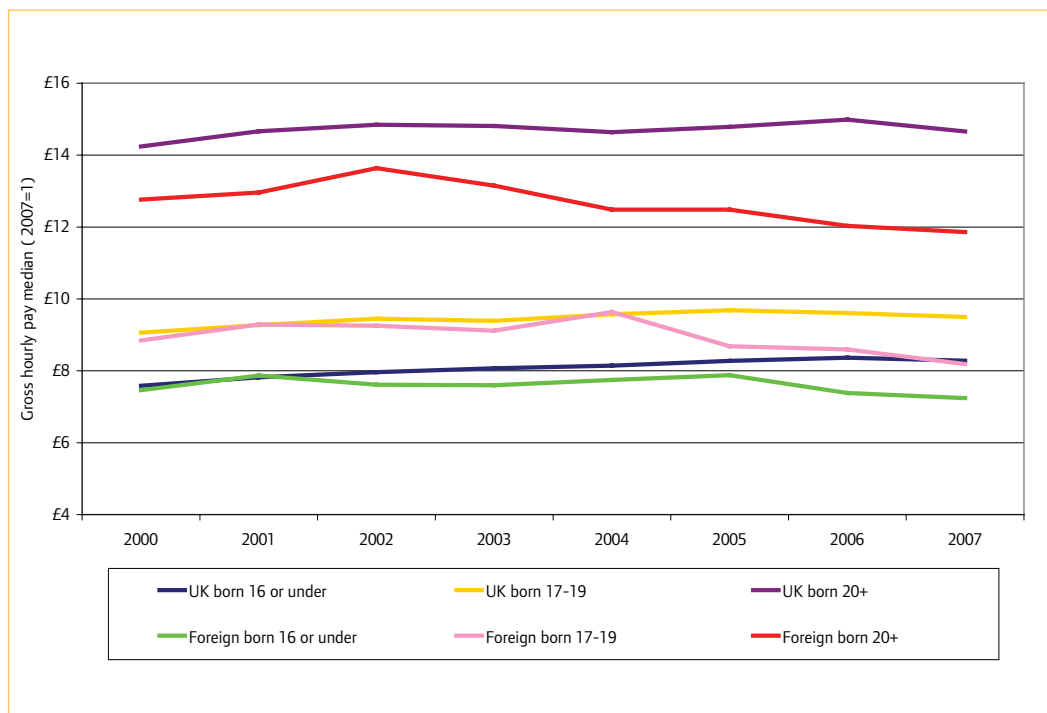
### Descriptive statistics

#### Average wages and employment by skill group

Figure 4.1 shows median gross hourly pay (in real terms, at 2007 prices) for the UK-born and foreign-born population for three ‘skill groups’ of workers, divided up using information from the LFS on the age at which survey respondents left full-time education. Although the LFS also contains detailed information on qualifications held by interviewees, the qualifications data are not very useful for looking at foreign-born people because most foreign qualifications are allocated to the ‘other’ category rather than being placed in a category alongside the equivalent UK qualification (university degree, A-level, and so on).

**Figure 4.1. Gross hourly pay median, by country of birth and age when left full-time education, 2000–2007**

Source: Labour Force Survey and ippr calculations



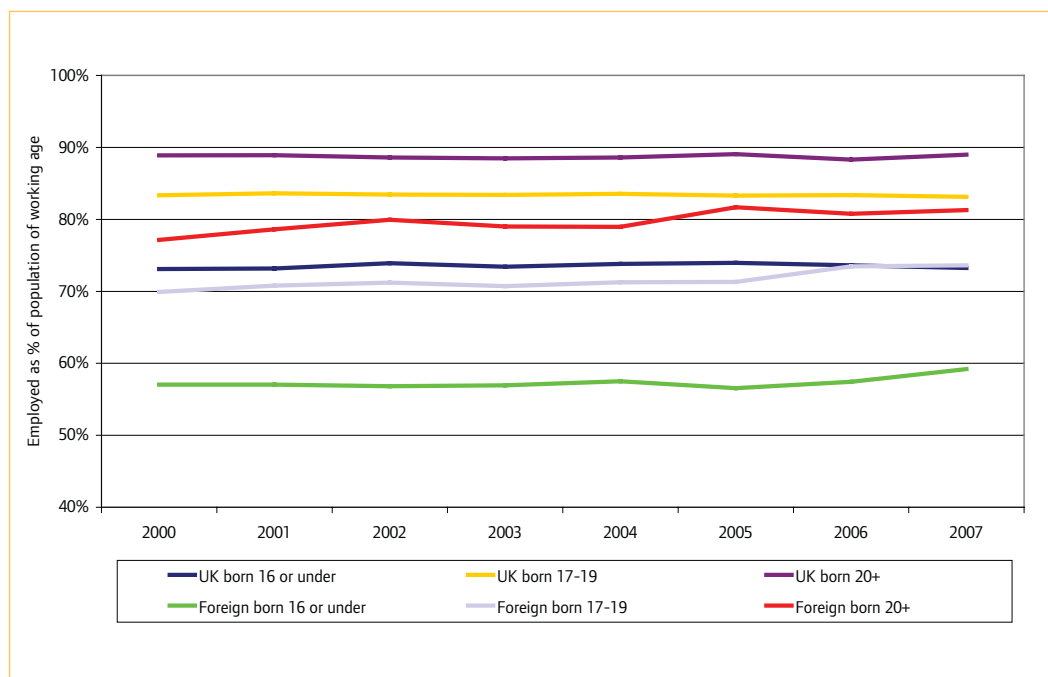
As shown in Appendix A, the profile of foreign-born people whose highest qualification is in the 'other' category looks completely different from those of UK-born people whose highest qualification is in the 'other' category, and hence we do not make use of the LFS qualifications information in our statistical analysis or econometric work. Instead we use the data from the LFS on the age at which survey respondents left full-time education to divide the UK-born and foreign-born workers into three categories: those who left school aged 16 or below, those who left school age 17 to 19 inclusive, and those who left school aged 20 or above. In the UK education system this would correspond, respectively, to people who left school with GCSEs or no qualifications, people who left school with A-levels or equivalent qualifications, and people who left school with higher education qualifications.

Figure 4.1 shows that there is a much bigger gap between UK and foreign-born median wages for the group that left education aged 20 or over than for the other two groups. Between 2000 and 2004 inclusive there was very little difference in median wages between the UK and foreign-born samples for the lower (age 16 or under) and middle (age 17 to 19) education groups. But median wages fell for the foreign-born sample in these two groups after 2004, whereas for the UK-born sample they have remained fairly static in real terms. This does not necessarily mean, of course, that the wages of *individual migrants* in each education group fell after 2004. The result shown in Figure 4.1 may be an artifact of compositional changes in the migrant workforce, with newer migrants (for example, those from the A8 countries) earning lower wages than earlier migrants, given their skill levels. Pollard *et al* (2008) and Dustmann *et al* (2008) present evidence that many migrants from the A8 countries are likely to be in jobs that do not fully utilise their skill levels.

Figure 4.2 shows working-age employment rates for the UK-born and foreign-born LFS populations, broken down in the same way as Figure 4.1. The graph shows that within each education group, foreign-born adults are less likely to be employed than UK-born adults. The gap is largest for the least educated groups, followed by the middle group, and then the most well-educated group. Since 2004 the employment rates for the foreign-born groups have increased while the employment rates for the corresponding UK-born groups have been more or less static, although there has been no perceptible *decline* in UK-born employment.

**Figure 4.2.**  
Employment rate,  
by country of birth  
age when left full-  
time education,  
2000–2007

Source: Labour Force  
Survey and ippr  
calculations



**Regional patterns in wages and employment**

There are significant regional disparities in average wage levels and employment rates across the UK (Johnson *et al* 2007); for example, employment in the North East of England, Wales and Northern Ireland is significantly below the UK average, while average wages in London are a lot higher than they are anywhere else in the UK. How do the regional patterns compare for migrants and non-migrants? Because a line graph in the style of Figures 4.1 and 4.2 would be too cluttered to read easily for this information, we instead present in Figure 4.3 a bar graph comparing snapshots of regional average earnings and employment rates for UK-born and foreign-born people of working age in 2000 and 2007.

Figure 4.3 shows median earnings by region<sup>13</sup> for each of these years. The graph suggests that the pattern of regional differentials in wages for the UK-born population was relatively stable between 2000 and 2007. Inner, and to a lesser extent Outer, London have much higher median wages than the other groups, followed by the rest of the South East. In contrast, for the foreign-born population, the pattern of wages changes substantially between 2000 and 2007. In some of the regions median wages for the foreign-born population are lower in real terms in 2007 than in 2000. This is the case in Scotland, the West Midlands, and the South East outside London, the East Midlands and East Anglia, and the Northern region. In Inner London, in contrast, median wages have risen sharply for the foreign-born group. In the other regions, median wages are little changed. As with the patterns of wages by skill group shown earlier, these shifts in the wage differentials in each region are likely to be the result of changes in the composition of the foreign-born workforce within each region arising from net immigration.

**Figure 4.3. Gross hourly pay median, by country of birth and UK region, 2000 and 2007**

Source: Labour Force Survey and ippr calculations

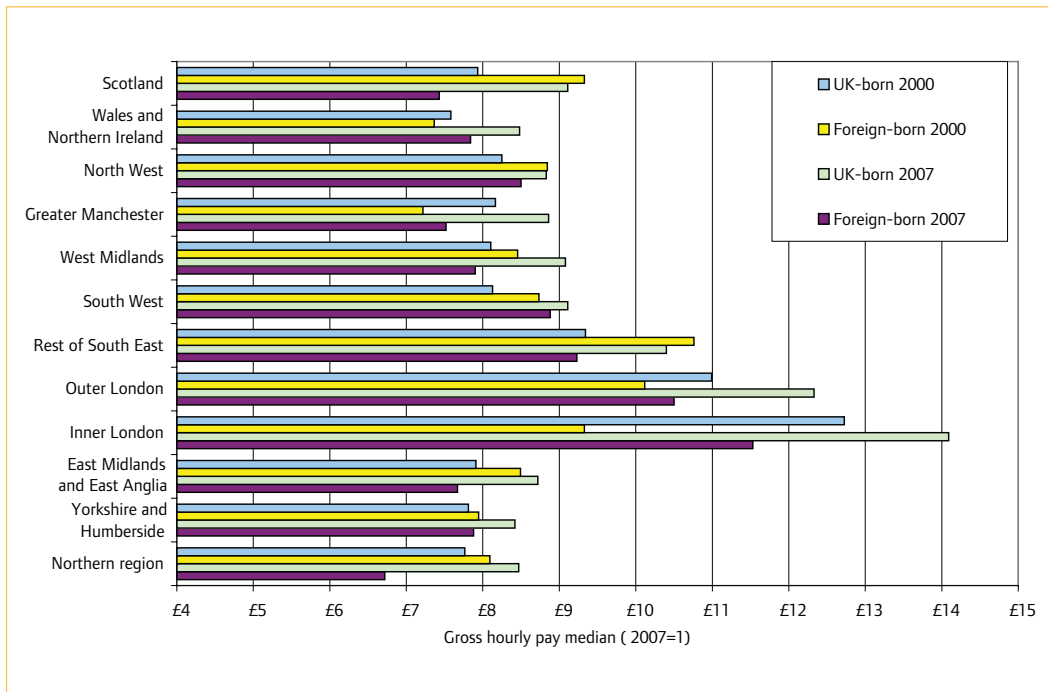


Figure 4.4 shows the employment rates for UK-born and foreign-born workers by region – again for 2000 and 2007. While employment rates for the UK-born population have been fairly static over the period, for foreign-born workers employment rates have increased markedly in every region. Scotland, Greater Manchester, Inner London and the Northern region saw particularly large increases. Once

13. We use a slightly modified version of the LFS’s URESMC variable for these regional analyses in order to make sure that the sample size of migrants in each region is sufficiently large for robust analysis. The analysis combines Northern Ireland and Wales, and the East Midlands and East Anglia. Metropolitan counties apart from Greater Manchester are combined with the surrounding regions.

again this is likely to be a compositional effect reflecting the fact that migrants from the A8 accession countries have relatively high employment rates (Pollard *et al* 2008).

**Figure 4.4.**  
Employment rate, by country of birth and UK region\*, 2000 and 2007

Source: Labour Force Survey and ippr calculations

Note: \*excluded full-time students

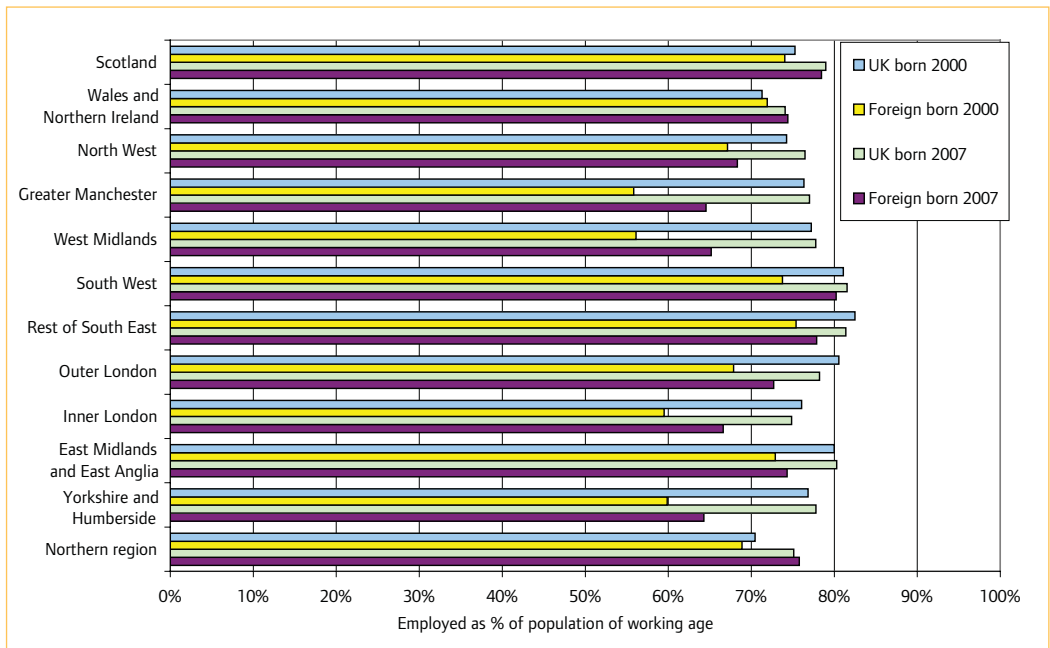
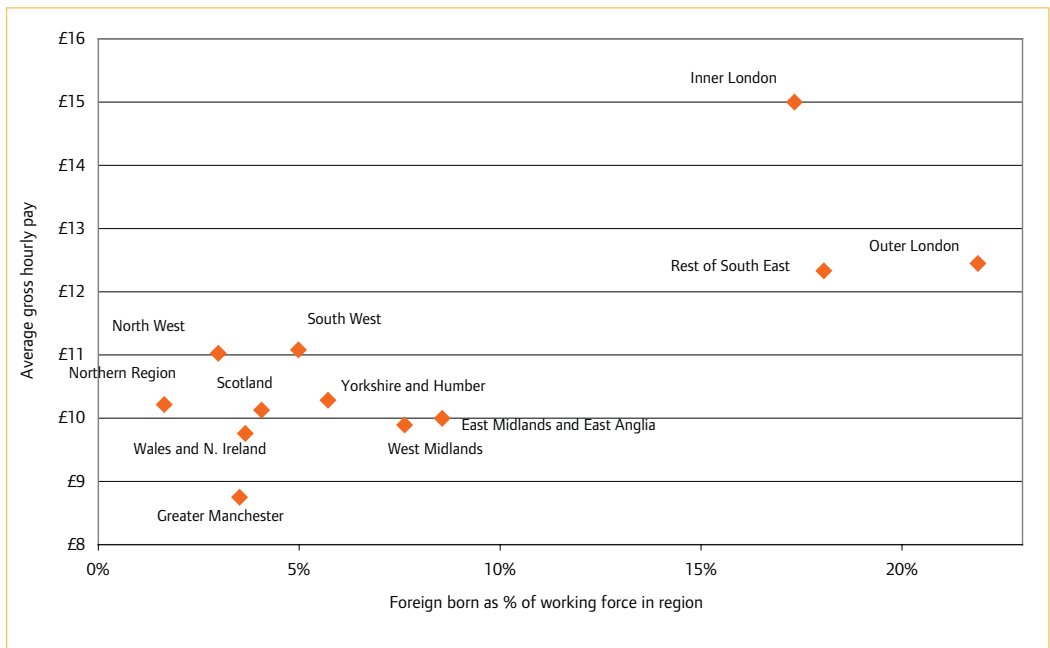


Figure 4.5 shows the proportion of foreign workers in each region, plotted against average pay in the region. The regions split into two categories. On the right-hand side, the two London regions and the South East outside London have relatively high gross hourly pay and a relatively high percentage of foreign-born people in the working population. On the left-hand side of the diagram is a cluster of regions with lower average pay and lower percentages of foreign-born workers.

Broadly speaking this graph illustrates a ‘North-South divide’ in the UK labour market: London and the South East have a high proportion of foreign-born workers, and also relatively high median earnings, compared with other regions. It is likely that the relatively high rate of economic growth in the South is at least partially driving both the high rate of immigration and the high rate of wage growth relative to the North. Within the North and South respectively, there is no clear relationship between the two variables.

**Figure 4.5.**  
Foreign-born workers’ average gross hourly pay, by region, 2007

Source: Labour Force Survey and ippr calculations



### Sectoral patterns in wages for UK-born and foreign-born workers

Figure 4.6 shows median wages for UK and foreign-born workers according to industrial classification (using the one-digit SIC92 Industrial Classification, as is standard in the LFS), for 2000 and 2007. Once again the figure reveals some interesting patterns. In 2000, foreign-born workers had higher average pay than UK-born workers in every industrial sector, with the largest differentials being in construction, and banking, finance and insurance. The smallest differential was in the distribution, hotels and restaurants sector. By 2007, the situation in manufacturing and construction had reversed, with foreign-born workers having lower wages than UK-born workers. The gap between UK-born manufacturing workers and foreign-born manufacturing workers was particularly large. By contrast, mean hourly pay in banking, finance and insurance was still higher for foreign-born workers than for those in the UK, although the gap has closed slightly since 2000.

The changes in sectoral pay patterns for immigrants make sense given that in 2000, the majority of foreign-born workers had to obtain a work permit to work in the UK – and work permits were (and still are) much more likely to be offered to high-skilled workers doing high-paid jobs than to low-skilled workers doing low-paid jobs. By 2007, there was a large proportion of foreign-born workers who did not need a work permit to work in the UK – in particular, workers from the EU accession countries. Hence by 2007 we would expect there to be a larger proportion of foreign-born workers with lower levels of skills, and hence lower average wages for foreign-born workers overall. This, however, is a compositional effect and does not show that wages for individual foreign-born workers of given skill levels have reduced.

**Figure 4.6. Average gross hourly pay, by country of birth and industry sector, 2000 and 2007**

Source: Labour Force Survey and ippr calculations

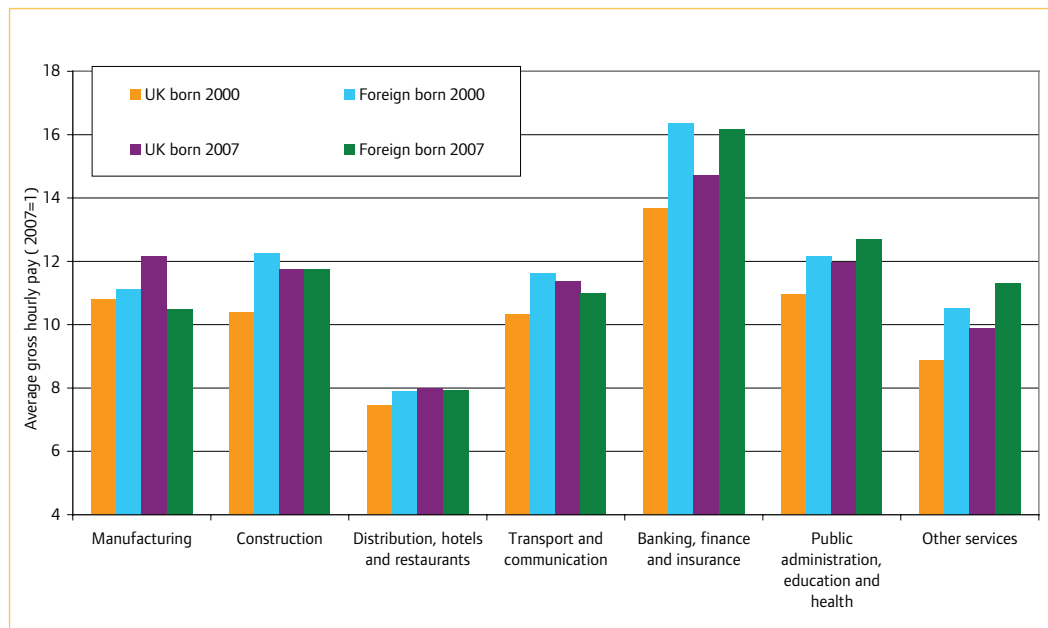


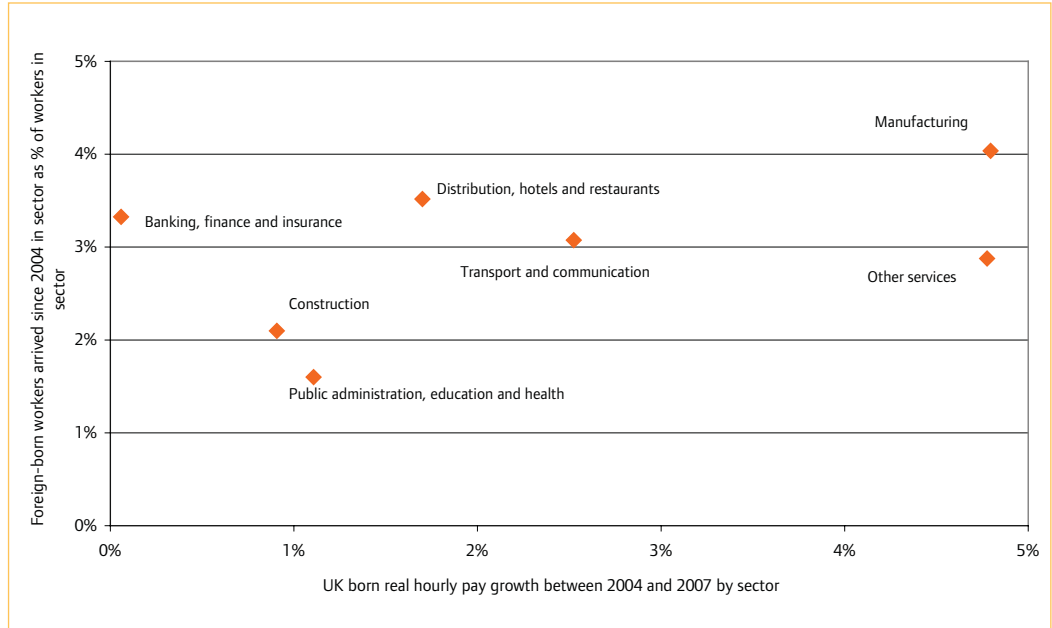
Figure 4.7 plots annual pay growth for UK-born workers in each sector between 2004 and 2007 against the number of foreign-born workers who arrived in the sector between 2004 and 2007 (as a proportion of all workers in the sector). This can be seen as a very crude test of whether a large influx of foreign workers in a sector is correlated with low pay growth for UK-born workers in that sector. The graph shows no real correlation between the number of foreign workers arriving in a sector and the rate of pay growth in the sector.

Figure 4.8 performs the same kind of analysis but looks at pay growth for the *foreign-born* workforce rather than the UK-born workforce. This is a crude test of the hypothesis advanced by Manacorda *et al* (2006) that foreign-born workers are more vulnerable to competition from new migrants than UK-born workers. The data show a slight negative relationship between the number of foreign-born workers entering each sector and pay growth in that sector between 2004 and 2007.



**Figure 4.7.**  
**Proportion of foreign-born workers arrived since 2004, against real hourly pay growth for the UK-born in each sector, 2007**

Source: Labour Force Survey and ippr calculations



**Figure 4.8.**  
**Proportion of foreign-born workers arrived since 2004, against real hourly pay growth for the foreign-born in each sector, 2007**

Source: Labour Force Survey and ippr calculations

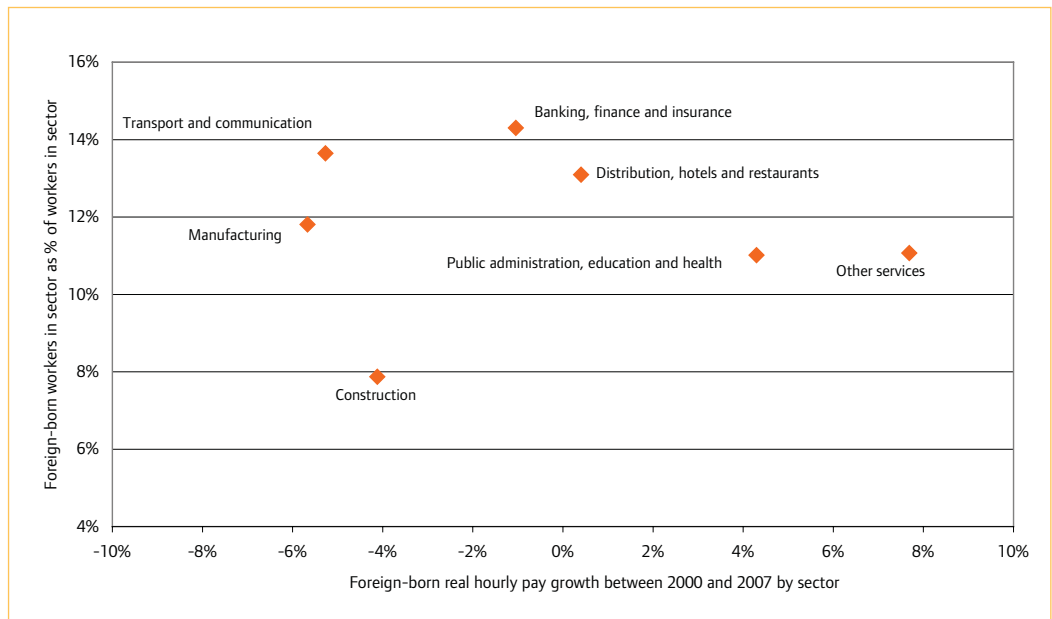
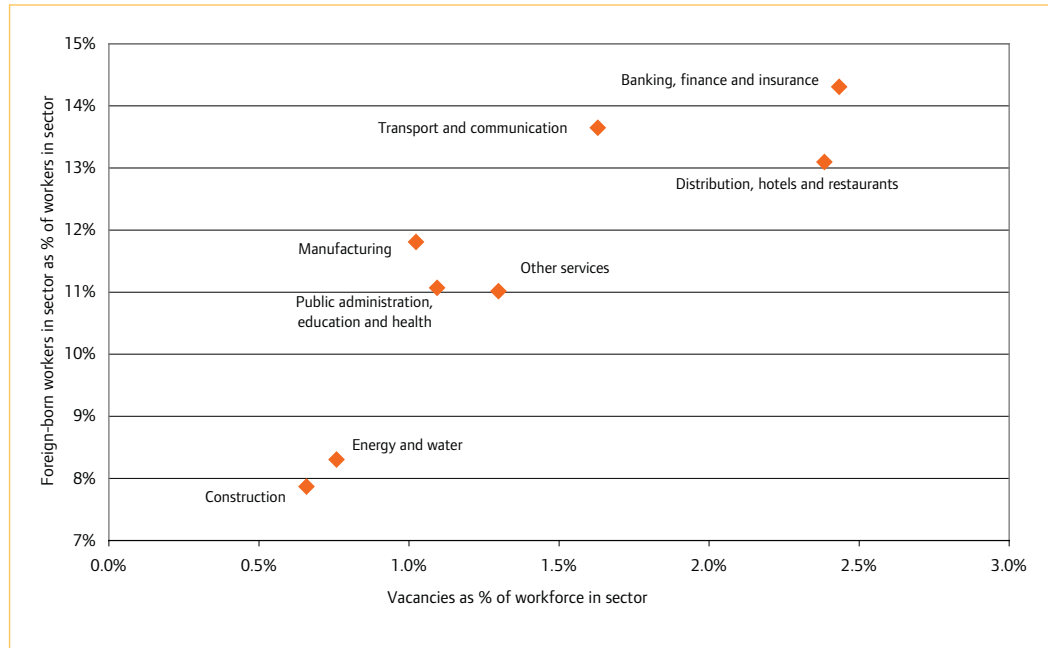


Figure 4.9 shows a scatter plot of the proportion of foreign-born workers in each sector against the number of vacancies in each sector. There seems to be a clear positive relationship between the two variables. This implies that migrant workers are entering the sectors with the highest level of vacancies – which could be because these are the sectors with either the highest level of growth or the highest number of skills shortages.

**Figure 4.9.**  
**Proportion of foreign-born workers by sector, against vacancies as percentage of labour force in sector, 2007**

Source: Labour Force Survey and ippr calculations



### Regression analysis of the determinants of wages and employment for UK and foreign-born workers

As the LFS provides a very large individual-level dataset, it is straightforward to conduct regression analysis of the determinants of wages and employment. This gives us a more detailed picture of the relationship between wages, employment and other variables in the data (including whether or not the survey members are born in the UK) than graphical methods can. However, many of the variables we use in these descriptive regressions are endogenous or ‘choice’ variables, and moreover many factors that could affect wages and/or employment but are not in the dataset are omitted. Thus the regressions in Appendix B should be taken as descriptive evidence rather than being interpreted in strict causal terms as the ‘impact’ of various factors on wages or employment. In the last section of this paper we try to isolate wage impacts in a more rigorous manner.

In Table B.1 in Appendix B we present results from an Ordinary Least Squares regression of log hourly wages in the LFS data on a number of explanatory variables using data from 2001 to 2007 inclusive. The explanatory variables are:

- Age (16–24 [base], 25–34, 35–44, 45–54, 55 and over)
- Occupation (managers and senior officials, professional occupations, associate professional and technical occupations, administration and secretarial staff, skilled trades operatives, personal services, sales and customer services, plant and machine operatives)
- Job tenure (less than 1 year [base], 1–2 years, 2–5 years, 5–10 years, 10–20 years)
- Year of data (base: 2001)
- Seasonal dummies (base: spring)
- Age left full-time education (16 or under [base], 17–19, 20 or over)
- Region (17 regions<sup>14</sup>; base: East of England)
- Interactions of all the above control variables with a dummy for being born outside the UK.

14. This is consistent with the regional analysis used in Dustmann *et al* (2008). In line with their analysis we omit Northern Ireland from the regression and we combine Inner and Outer London into one region and Strathclyde and the rest of Scotland into one region.

The results from the regressions (listed in detail in Appendix B) show significant positive returns to length of job tenure, which are not significantly different for UK-born and foreign-born workers. The highest average wages by occupation, controlling for other factors, are found among managers and senior officials, professional occupations and associate professional and technical staff. The interactions between the foreign-born dummy and the occupational variables suggest that foreign-born managers, professional occupations, associate professional and administrative and secretarial staff have higher wages on average than their UK-born counterparts, controlling for other factors. Meanwhile, foreign-born process, plant and machine operatives have (slightly) lower wages than their UK-born counterparts (by about 3 per cent on average).

The age-earnings profile suggests that controlling for other factors, the 35–44 age group has the highest average wages. The age-earnings profile for foreign-born workers is less pronounced. The pattern of coefficients for the year dummies confirms that there was real-terms growth in average wages between 2001 and 2007<sup>15</sup>. There is a clear return to skills in the regression; UK-born workers who left school aged 17 to 19 earn around 10 per cent more on average than those who left at 16 or below. For foreign-born workers the skills premium for this group is lower, at around 6 per cent – this may be evidence of underemployment or ‘downskilling’. For workers who left school aged 20 or over, the equivalent wage premiums are 27 per cent for UK-born workers and 19 per cent for foreign-born workers.

The regional dummy variables show a clear and consistent pattern, with workers in Inner and Outer London and the South East being paid more than the base region (East of England), the West Midlands, Greater Manchester, Merseyside and the rest of the North West earning about the same, and other regions earning significantly less in most cases. The lowest-paid regions, controlling for other factors, are the North East, South Yorkshire and Wales. Foreign-born workers in London and the West Midlands earn significantly less than UK-born workers in those regions conditional on other factors, but for other regions, there is no significant difference between the regional earnings pattern for UK-born and foreign-born workers.

*F*-tests of each category of explanatory variable show that all the occupation, age, education, year, seasonal, job tenure and region variables are significant for the sample as a whole. Foreign-born workers show a significantly different wage profile across regions, occupations, age and education but not for any other regressor variables.

We also did a probit regression (dependent variable: in work or not working, as recorded in the LFS) to examine the determinants of employment for UK-born and foreign-born workers. All the regressors were the same as for the wage regression above except that the occupation and job tenure variables were not included (as they only apply to people currently in work). The results are presented in the appendix, Table B.2. They show that there is a strong relationship between age and employment for UK-born people, with 35- to 44-year-olds being more likely to work than any other group, and people aged over 55 the least likely to work. The age-employment profile for foreign-born people is a lot flatter. Employment rates increased slightly (by about 2 percentage points) over the period 2001 to 2007 for the UK-born population; the foreign-born population does not exhibit a significantly different time profile. There is no very strong seasonal profile for employment, controlling for other factors.

People who stayed on in full-time education past the age of 16 were much more likely to be in employment – this was true of both the UK-born and foreign-born population. UK-born people who left full-time education when aged between 17 and 19 were 9 percentage points more likely to be employed than those who left school at 16 or under. For foreign-born people the differential was 11 percentage points. For people leaving full-time education aged 20 or over (mainly graduates), the

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15. Note that we are unable to include LFS data for 2000 in the regressions because the SOC2000 occupational classification, which we use for our occupational variables, was only introduced in spring 2001.

differential as compared with those who left at 16 or under was 15 percentage points for UK-born people and 17 percentage points for non-UK-born people.

The regional pattern of employment rates shows that for people born in the UK, those living in the East of England have the highest likelihood of being employed, conditional on other factors. For the South East, South West and the non-metropolitan West Midlands, the likelihood of employment is not significantly lower than in the East. UK-born people in Tyne and Wear and the rest of the North, South Yorkshire and Greater London are least likely to be employed conditional on other factors. For the non-UK-born population, employment rates are about 12 percentage points lower than the UK-born population (controlling for other factors) in Greater Manchester and West Yorkshire, and about 10 percentage points lower in the West Midlands metropolitan area. In Greater London foreign-born workers are about 5 percentage points less likely to be employed than UK-born workers.

### Wages for migrants according to length of stay in the UK

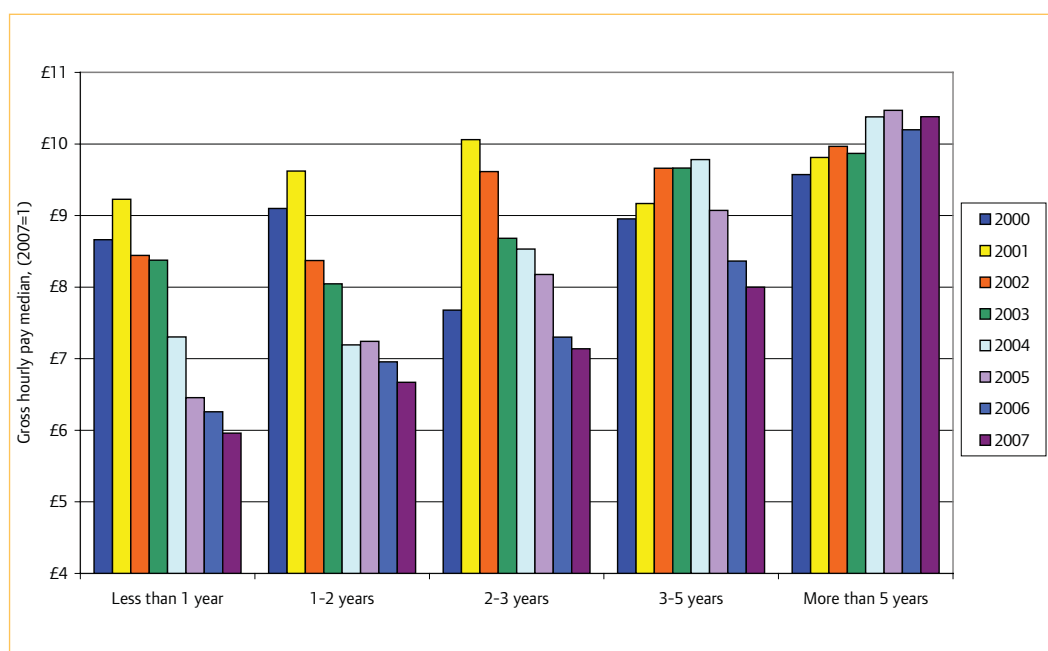
All the descriptive statistics that we have presented so far have used the whole population of foreign-born people currently resident in the UK as a proxy for migrants. But this does not take any account of how long the migrants have actually been in the UK. Figure 4.10 shows median pay in the LFS for migrants according to how long they have been in the UK.

Figure 4.10 shows some very interesting patterns. In the years 2000 to 2003 – before A8 accession to the EU – the median wage for migrants who had been in the UK less than 1 year was between £8.00 and £9.25 per hour in 2007 prices, while wages for migrants who had been in the UK for 5 years or more were between £9 and £10. But in the years 2005 to 2007, the median wage for migrants who had been in the UK less than 1 year was only around £6 per hour. These results seem to indicate that the period following the expansion of the EU in 2004 resulted in a significant change in the wage structure for migrant workers.

As discussed earlier, the post-2004 increase in the numbers of migrants from the EU accession countries who do not require work permits may be an explanation for these changes in the migrant wage structure. Moreover, Dustmann *et al* (2008) present evidence that many recent migrants from the A8 are ‘downskilling’ – they are entering jobs that do not fully utilise their skills. If downskilling was not a large-scale phenomenon before 2004, this would tend to produce the pattern shown in Figure 4.10. We examine this issue in more detail in the next subsection where we conduct regression analysis on using micro-data on UK wages over the same period.

**Figure 4.10. Gross hourly pay median, by length of stay in the UK, 2000–2007**

Source: Labour Force Survey and ippr calculations



### The relationship between migration, wages and employment at the local authority level

So far, the lowest level of disaggregation we have presented evidence on is the regional level. This is because the Labour Force Survey does not include any geographical units smaller than regions in the public release dataset<sup>16</sup>. However, the UK Government publishes data on the number of registrations for National Insurance Numbers ('NINOs') for workers born outside the UK, and this data is produced at local authority district (LAD) level. Unfortunately, when used as a proxy for the number of migrant workers in each local authority, these data suffer from a major drawback. While migrants normally register for a NINO in the local authority in which their first job is based on arrival in the UK, they do not have to re-register if they move jobs. Thus there is no guarantee that the distribution of NINOs reflects the underlying distribution of migrant workers. Nonetheless, the data are the best available for our current purposes and so we use them here, bearing in mind the limitations. We use data on median hourly wages and employment rates disaggregated to LAD level from the Government's NOMIS data service to do some basic cross-tabulation analysis of the relationship between migration, wages and employment at the local authority level.

Figure 4.11 shows a scatterplot of the number of NINO registrations between spring 2006 and spring 2007 for each local authority, expressed as a percentage of the working-age population for that district (on the horizontal axis) against the annual change in median wages over the same time period. The straight line through the cloud of triangle points on the graph is a 'line of best fit' showing the relationship between the two variables. The line is almost completely flat, showing almost no relationship between changes in wages and the number of NINO registrations in a district. This is a very crude analysis – it does not control for any other factors that might affect either wage levels or the number of NINO registrations – but it does suggest that there is no obvious raw relationship between wages and the arrival of new migrants in local authorities that can be 'eyeballed' in the data.

Figure 4.12 shows a similar scatterplot to the previous graph except that in this case the vertical axis shows the annual percentage change in the employment rate, rather than the average hourly wage, in each local authority. This time there is a slight *positive* relationship between foreign-born workers and employment – that is, local authority districts with a greater influx of migrants have improved employment rates between 2006 and 2007, compared to LADs with fewer immigrants. However, this is partly driven by an 'outlier' in the data, the City of London district, which has a much higher number of NINOs as a percentage of the working-age population than any other district, as well as very strong employment growth. When the City of London is removed from the analysis, there is no clear positive or negative relationship between the increases in employment and the number of NINO registrations in each local authority.

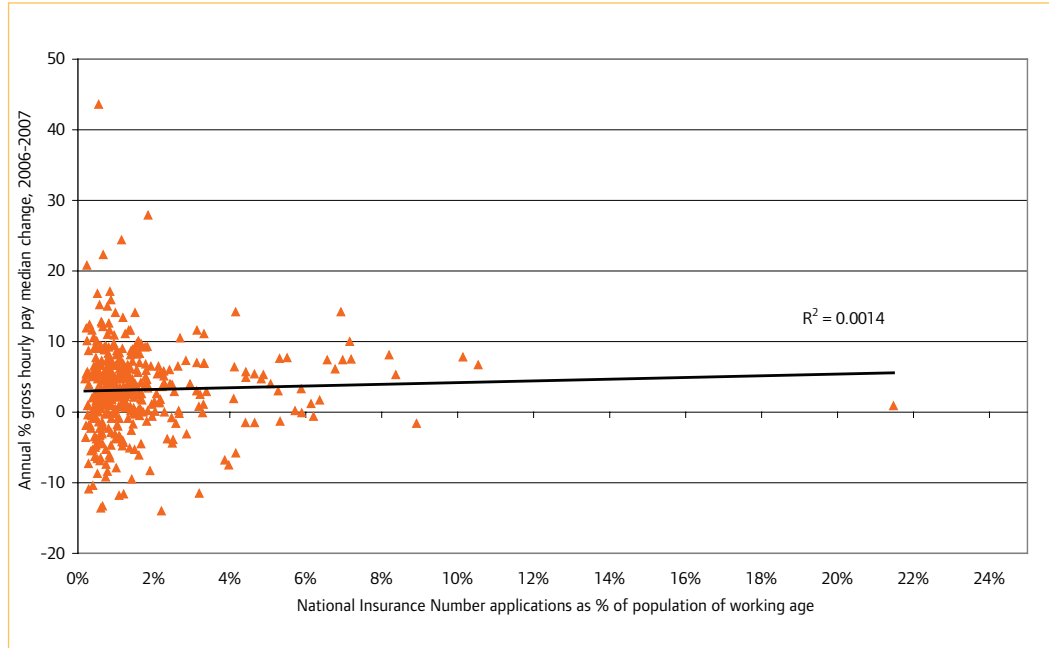
The overall message from our local-authority-level analysis of patterns in wages and employment is that there is no obvious evidence from the headline data that immigration is having an adverse impact on wages or employment. This backs up the overall message from our descriptive analyses earlier in this section using LFS data. Our results using the NINO data also reinforce the conclusions of Gilpin *et al* (2006) who perform similar analyses using data from the Worker Registration Scheme (which applies to migrants from the EU accession countries only). However, simple cross-tabular analyses have the obvious limitation that they do not control for any other factors affecting wages and employment. The next section of this paper uses a regression model of the determinants of wages to conduct a more sophisticated empirical examination.

Originally we had planned to do a more sophisticated set of analyses using the NINO data – for example, breaking down the data according to age and skill level of the migrants who register. However, due to confidentiality concerns the Department for Work and Pensions is not currently making the disaggregated NINO data available to researchers.

16. A version of the LFS with key variables (average wages, employment and unemployment rates, and so on) aggregated to local authority level was produced for several years, but has recently been withdrawn due to confidentiality concerns.

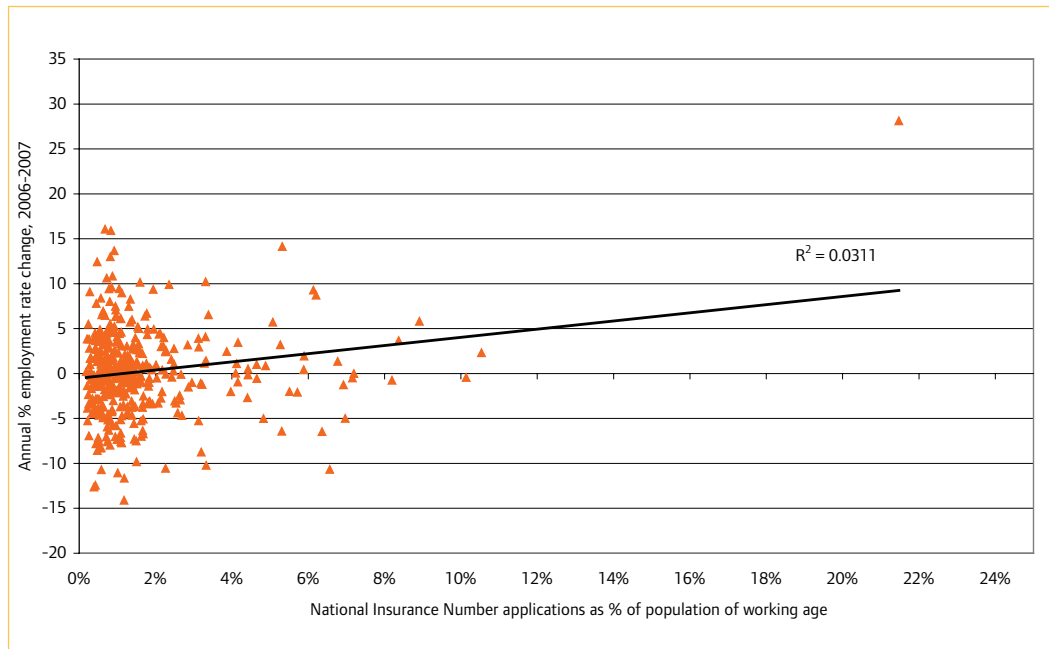
**Figure 4.11.**  
**Foreign nationals’**  
**National Insurance**  
**No. applications,**  
**against gross**  
**hourly pay median**  
**increase, by local**  
**authority, 2007**

Source: Department for Work and Pensions, and NOMIS



**Figure 4.12.**  
**Foreign nationals’**  
**National Insurance**  
**No. applications,**  
**against**  
**employment rate**  
**increase, by local**  
**authority, 2007**

Source: Department for Work and Pensions, and NOMIS



**Regression analysis of the effects of migration on wages**

While the descriptive statistics shown in the first part of this section are useful, it is impossible to analyse the labour market impacts of migration on wages and employment using graphical methods because these methods only examine the relationship between two variables at once. To examine the relationship between migration and wages (and migration and employment) while simultaneously controlling for all the other factors that might affect wages it is necessary to carry out multivariate regression analysis of the LFS data using a model specifically designed for the purpose.

In this part of the paper we present the results of our regression analysis of the determinants of wages and the effect of migration on wage levels. We focus on the determinants of wages rather than employment in this section; the recent DWP research paper by Lemos and Portes (2008) summarised above is the most recent UK study of the effects (or lack of effects) of recent migration on employment, although it looks only at the impact of migration from the countries that joined the EU after 2003, rather than all foreign countries (because of the data source used).

### The relationship between migration and wages

Identification of the effect of migration on wages depends on subdividing the UK labour market according to some observable characteristic and then using the variation between the wage levels in different submarkets (controlling for other factors) to identify the model. Our preferred specification is to subdivide the market by **region** and **occupation group** (as well as over time). Hence, our regression specification is similar to the approach used by Dustmann *et al* (2008) except that we disaggregate the labour market by region *and* occupation, rather than just by region. Our model is also similar to the one used by Nickell and Salaheen (2008) except that we do not use data from before 2001 because of the SOC reclassification issue. We use one-digit SOC classifications rather than the two-digit classifications used by Nickell and Salaheen, but we use a more disaggregated regional variable than they do (17 regions rather than 11).

Our identification strategy is not foolproof, because we know from previous research (for example, Pollard *et al* 2008, Dustmann *et al* 2008) that migrants do not necessarily enter jobs appropriate to their skill levels. If migrants tend to change occupations as they move from job to job in the UK labour market, or indeed if they tend to change regions, this will undermine the separation between different regional and occupational labour markets that is necessary to identify a ‘migration effect’ on wages accurately.<sup>17</sup> Nonetheless we feel this is the best we can do given the available data – it provides a large number of regional/occupational ‘cells’ with which to estimate the wage effects of migration.

Hence the equation to be estimated is as follows:

$$\Delta \ln \bar{w}_{ort_i} = \alpha \Delta m_{ort} + \beta_t + \Pi \Delta \bar{X}_{ort} + \Delta \bar{\epsilon}_{ort_i} \quad (\text{equation 1})$$

where for occupation *o*, region *r* and year *t*,  $\Delta \ln \bar{w}_{ort_i}$  is the change in average wages in that occupation/region cell of the labour market over the previous year,  $\alpha \Delta m_{ort}$  change in the share of foreign-born population in the working-age population in that region and occupation group,  $\beta_t$  is a set of year dummies, and  $\bar{X}_{ort}$  a vector of other control variables similar to those used by Dustmann *et al* (2008):

- The change in the proportion of people leaving full-time education aged 19 or over (the ‘highly educated’ group) in the overall working-age population over the last year
- The change in the proportion of people leaving full-time education aged 17 or 18 (the ‘medium-educated’ group) in the overall working-age population over the last year
- The change in the average age of UK-born and foreign-born workers in the working-age population over the last year.

The within-cell averages used in the regressions are weighted to correct for differential non-response in the LFS data.

This specification uses the relationship between changes in the number of migrants in a given occupation group within the workforce in each region, and changes in average wage levels within those groups, to identify the effect of migration on wages. At the same time the model controls for changes in the education levels and average ages within each group. However, it should be noted that migration into a specific region is an endogenous (choice) variable. Given the aggregate positive relationship between wage levels and the proportion of migrants in each region in 2007, shown in Figure 4.9 above, it is probable that migrants are more likely to enter regions where wages are

17. Note that we have used region and occupation group rather than region and skill or educational qualification grouping to identify the regression because there is an additional problem with using qualifications for migrant workers in the LFS – most foreign qualifications are allocated to the ‘other qualifications’ category, meaning that the skills distribution of migrant workers is not directly comparable with UK-born workers. Using data on the age at which migrants left full-time education would be a better alternative, although this would still be subject to the problem that migrants tend to be ‘downskilled’ in jobs compared with UK-born workers.

relatively high (conditional on other characteristics). This will result in positive correlation of the error term  $\epsilon$  with the migrant share  $m$ , which is likely to bias the estimated coefficient  $\alpha$  in a positive direction (see Gilpin *et al* 2006 for details).

Ideally, we would seek to instrument the migrant share variable with a variable that is correlated with migrants' location decisions but not with wage levels conditional on migrants' location decisions. Dustmann *et al* (2008) and other previous papers analysing LFS data use lagged values of the migrant share variable as an instrument for current migration decisions on the grounds that immigrants are more likely to go to areas where previous migrants are already located. It is not clear whether this argument makes sense with regards to recent migration from the A8 countries as the population of previous (that is, pre-2004) migrants from these countries in the UK was small (with the partial exception of Poles) and migrants into the UK in the period before the accession countries joined the EU were a highly heterogeneous group from a wide range of countries (see Kyambi 2005). Thus, it is not immediately obvious why recent migrants would choose to locate in the same regions as previous migrants. Nonetheless we have used an instrumental variables regression using lagged values of the migrant share variable as an instrument for the current share of migrants as our preferred regression specification, as it is not obvious whether any alternative instrument available from the LFS data or any other source would perform better.

Table 4.1 shows the results from the wage regression using the IV (instrumental variables) specification, with OLS results presented for comparison. To keep things uncluttered here we show the results of the coefficient on the change in migrant share variable only. The full set of results is shown in Appendix C.

Specification	Instrumental variables (IV)		Ordinary Least Squares (OLS)	
	coefficient	t-ratio	coefficient	t-ratio
Change in share of migrants, t-1 to t	-.281	1.92*	-.033	0.53
Number of observations	815		815	

Notes: Single asterisk (\*) indicates that coefficient is statistically significant at the 10 per cent level. Standard errors allow for clustering within region/occupation groups and for heteroskedasticity (i.e. where the error terms in the regression are not drawn from a uniform distribution across the sample). Instruments used in IV specification are migrant share (by region) lagged 4 and 5 years.

Table 4.1 shows that the coefficient of migrant share on wages is around -0.28 in our preferred IV specification. The t-value of the estimate is 1.92, which is significant at the 10 per cent level but not at the 5 per cent level. Thus although we find a negative correlation between changes in the share of migrants by region and occupation group and wages, the result is not very strong, statistically speaking. If this point estimate of the effects of migration on wages controlling for other factors is accurate, it suggests that a 1 percentage point increase in migrants as a share of the workforce is associated with a decrease in wages of 0.3 per cent. This is a small effect, which is not far out of line with the results found in the survey by de Longhi *et al* (2005) of previous empirical work on the effects of migration across OECD countries. It is also not significantly different from the negative wage effect found by Nickell and Salaheen (2008) using data from 1992 to 2005 inclusive, although their point estimate is smaller than ours.

#### Comparison with results from Dustmann *et al* (2008)

Our finding of a negative relationship between migration and wages contrasts with the finding by Dustmann *et al* (2008) of a statistically significant positive relationship between increases in migrant share and increases in wages. To see what was responsible for the difference, we replicated the regression methodology used in Dustmann *et al*'s paper in an attempt to account for the discrepancy between the two sets of results.



There are two main differences between Dustmann *et al*'s methodology and our own:

1. Dustmann *et al* disaggregate the data using just two variables – region and year – rather than three (region, occupation group and year).
2. Dustmann *et al* use LFS data from the start of 1997 to the end of 2005 whereas we use data from the start of 2000 to the end of 2007<sup>18</sup>.

It is useful to replicate the methodology from Dustmann *et al*'s paper using LFS data from the same time period that we use for our regressions. This should enable us to ascertain whether the differences in our results are due to the methodology being used, or to the estimation strategy being used.

Table 4.2 presents results from regressions of this type for the two time periods, using share of migrants in the population, lagged 4 years, as an instrument. (This is one of the instruments used by Dustmann *et al* in their paper and is similar to the instrument we use in our regressions above.)

**Table 4.2. Comparison of results using methodology from Dustmann *et al* (2008) for 1997–2005 and 2000–07 time periods**

Specification	IV: 1997–2005		IV: 2000–07	
	coefficient	t-ratio	coefficient	t-ratio
Change in share of migrants, t-1 to t:	.354	6.62	-.315**	3.45
R-squared	.207		.601	
Number of observations	136		119	

Note: IV regressions use a 4-year lag of migrant share as the instrument. \*\* indicates statistical significance at the 5 per cent level.

The results that we derive for the 1997–2005 time period using Dustmann *et al*'s methodology are similar to their results (we were unable to replicate the results exactly because of certain recent changes to the LFS data set which reduce the accuracy of the results – for example the LFS now only gives age in 5-year bands rather than in exact years). In particular, the IV result we get for the 1997–2005 time period is a (positive) coefficient of 0.353, which compares to a reported figure of 0.393 in Dustmann *et al*'s paper. When we replicate their methodology for the 2000–2007 time period, we get an IV estimate of -0.315. This is very similar to our result in Table 4.1 using region and occupational groupings. In short, almost all of the difference between the results in Dustmann *et al* (2008) and our own results is due to using the more recent time period rather than the difference in methodology<sup>19</sup>.

18. The reason that we can only go back as far as 2001 in our empirical work is that the definition of the occupation variables used in the LFS changed in the year 2000, from the SOC1990 to the SOC2000 classification.

19. When writing this paper we experimented with using the Dustmann-style regression methodology over a longer time period which encompassed both the time period used by their study and the time period used by ours (that is, 1997 to 2007 inclusive). As well as the 'change in migrant share' variable we included a variable interacting change in migrant share with a linear trend. This was designed to establish whether the migrant share effect was becoming more negative over the course of the data. When this specification was estimated, neither the migrant share variable nor the interaction with the trend variable was statistically significant. Full results from this regression are available from the authors on request.

## Conclusions

Our aim in this paper has been to offer an honest, accessible and accurate account of the effects of migration on wages and employment in the UK, drawing on the best available evidence, and adding some high-quality new evidence of our own. With these objectives in mind, we conducted three main pieces of work, the main findings of which are summarised below.

1. The main message that comes out of the **review of the theoretical literature on the economic impacts of migration** is that it is extremely unlikely that increased migration into the UK will have a substantial negative impact on either wages or employment in the UK in aggregate. There *could* be a small negative effect on wages and/or employment. But then again, there could be a small positive effect, or no effect at all. The effects of migration, in both the short and long term, are too complex for economic theory to deliver exact predictions. However, the theory does rule out some of the more extreme doom-mongering scenarios of the anti-migration camp.
2. The **review of the empirical evidence on the economic impacts of migration** reveals that in the UK, the best previous evidence suggests that the overall effects of migration on wages are either insignificantly different from zero, or slightly positive. The balance of evidence from other countries suggests slightly negative effects. The evidence base on the effects of migration on employment in the UK is relatively thin, but the best available evidence suggests that the effects are not significantly different from zero. Again, the balance of evidence from other countries suggests slight negative effects.
3. Our **new regression analysis of the economic impacts of migration** on wages suggests that the overall effects of migration on wages are slightly negative (based on our results using instrumental variables, although the validity of the instrument is questionable). Our regression model suggests that a 1 percentage point increase in the share of migrants in the UK working-age population (for example, from 10 per cent to 11 per cent of the population) would reduce wages by around 0.3 per cent. This effect is extremely small. To give an example, for someone on a wage of £6 per hour (just above the UK minimum wage), working a 40-hour week, this suggests that a 1 percentage point increase in the share of migrants would reduce their **weekly** gross pay by around 70 pence – a tiny amount. By comparison, the estimated effect (for the UK-born population) of leaving school at age 17 to 19, compared with leaving school at the minimum leaving age of 16, is to increase wages by around 10 per cent. For someone on £6 per hour working 40 hours a week, this would equate to a weekly increase in wages of £24 – an effect that is around 35 times larger than that caused by a 1 percentage point increase in the migrant share.

Our regression specification is similar to earlier work by Dustmann, Frattini and Preston (2008). As a check, we have updated the exact model specification from Dustmann *et al* to use the same time period as our study (2001–07). Using data from this more recent time period, their results are very similar to ours. The previous estimate by Dustmann *et al* suggested a small positive impact of increased migration on wages, but this only used data up to the end of 2005. The more negative results using recent data may be because the recent influx of A8 migrants have had a (very slight) depressing effect on wages. This could be linked to the macroeconomic argument of Blanchflower (2007) that migrants have had a moderating impact on wage demands in the UK. It is quite possible that the negative effects that we find are a transitory effect caused by large immigration flows from the A8 accession countries in particular, as Pollard *et al* (2008) speculate: only time will tell.

Our evidence for the impact of migration on employment is more cursory, based on graphs and cross-tabulations. None of these shows any substantial negative correlation between employment and migration. This is in line with previous evidence by Gilpin *et al* (2006) and Lemos and Portes (2008).

In short, the evidence we have analysed here, plus our own empirical contributions, suggest that the view of the tabloid press that migrants ‘take our jobs’ and ‘cut our pay’ is misplaced. There is simply no evidence to suggest that migration has any substantial negative impact on either wages or

employment. It is entirely possible that there is a small positive impact on either or both of these, or no impact at all.

We should stress two important caveats to this optimistic conclusion, however. Firstly, the data used for the research presented here predates the recent downturn in the labour market. If the recession that started in 2008 proves to be as severe as some of the more pessimistic commentators are predicting then it is likely that any impacts of migration on employment will be dwarfed by a large rise in the headline unemployment figures. Additionally, if the UK's downturn is particularly bad compared with other countries', this will probably affect the direction and size of worker flows from other countries; for example, it is quite possible that many workers who have come to the UK from the A8 countries will return home. Pollard *et al* (2008) find some initial evidence that this is already happening.

Secondly, due to the deficiencies of even the best available data in the UK we were unable to assess the *local* labour market impacts of migration with any real rigour or detail. Our conclusions refer to the *aggregate* labour market impacts of migration. It is entirely possible that within local labour markets, in the short run, there could be more noticeable negative impacts – or more positive local impacts on either wages or employment. It is important to stress the word 'could' here – we simply do not know for sure. It is vital that the UK Government develops larger labour market datasets, or adapts the existing data to focus on individual local labour markets in more detail, if researchers are to have any chance of testing anecdotal claims that immigrants are depressing wages and reducing the employment prospects of UK-born people in certain localities.

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## Appendix A: Employment rates for UK-born and migrants by level of qualifications

**Figure A.1.**  
**Employment rate by country of birth and level of qualifications, 2000–2007**

Source: Labour Force Survey and ippr calculations

