



Migration and productivity: employers' practices, public attitudes and statistical evidence

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Summary

The debate about the economic impacts of migration has focused on the short-run impacts on labour markets, public service and public finances. These have taken centre stage in recent Government announcements and debates about social impacts, fuelled by perceptions of public opinion on migration. The report is aimed at moving the spotlight away from short-term impacts on the employment of natives and on to the longer-term connection between migration and productivity. In doing so it fills a gap in knowledge about the impact of migration on the UK economy, labour markets and workplaces. We have collected new evidence on migration, through interviews with employers and the general public; we have examined existing evidence and we have analysed quantitative data on migration and productivity in new ways.

Building on existing research

Existing studies have found immigration has impacts on firms through a number of processes, including through complementarity of skills, aptitudes and knowledge between migrants and natives, which raises the overall skill level of workplaces and firms; transmission of skills, aptitudes and knowledge from migrants to non-migrant colleagues and by increasing the incentive for natives to acquire certain skills by boosting competition.

Evidence also points to productivity impacts made by migrants in bringing knowledge of markets and economies of home countries and connections with these. The contribution of migrants to innovation and business growth has been evidenced by the involvement of migrants in research in patent applications. Productivity gains have also been found to result from diverse teams.

Much existing research has been either quantitative or qualitative, and rarely conducted using mixed methods. It is even more unusual for research to combine the perspectives of employers and the general public with quantitative data.

Our approach

We look first at existing evidence, what it tells us about migration and productivity and what it does not. We then look at the practices, experiences and perspectives of employers and then at the perspectives of employees who work with migrants drawn from the general public. We then set out to establish whether the benefits identified by employers and by employees are reflected in data on productivity. These findings are then brought together to draw some conclusions about productivity and immigration at workplace level.

Employer interviews, focus groups and quantitative analysis methods

Each of the stages of our research adds new evidence in itself. The qualitative, case study, research with employers identifies some mechanisms through which migrants increase productivity, particularly through meeting needs for high level skills and complementing skills of non-migrants. The case study interviews with employers provide detailed evidence of migration impacts in the key sectors of IT, Higher Education, Pharmaceuticals and Banking. The findings highlight the advantages

to some organisations of recruiting internationally, in terms of productivity and competitiveness. But recruiting migrants is not without cost, and the disadvantages are also conveyed through case study evidence.

Focus groups with the general public provide new data on the ways in which non-migrants benefit from working alongside migrants. While the results of public opinion polls on migration have received substantial press coverage, there has been limited research on public attitudes, particularly in relation to migration in the workplace. The interviews focused on the labour market and workplace, where participants identified benefits, both to employers and to themselves, and also costs and disadvantages. Our data reveals a mixed and complex picture, but one in which non-migrants acknowledge that migration has brought benefits to work teams and organisations.

We conducted quantitative research to establish whether the benefits to productivity reported by our own and by previous qualitative research, as well as anecdotal evidence, are evident in UK data. We examined data on labour productivity across sectors and regions of the UK, using data which has not previously been used to look at the economic impacts of immigration in the UK. .

The strength of our report lies both in the findings from each of these stages, but more importantly, from the consistent story they convey – that migrants contribute to productivity. The evidence from the case studies and from the focus groups is that they do this through bringing additional, complementary skills to workplaces and work teams.

Key findings

Why employers recruit migrants

- Employers said they recruited from outside the UK for three main reasons: where the supply of skills from within the UK is deficient; to recruit high level skills which are in short supply world-wide; and to complement the skills of non-migrants.
- Focus group participants' image of a migrant worker was of an Eastern European in low skilled, low paid work. This was at odds with the views of employers in the research, who saw skilled migration as most important in meeting their needs. While some participants held views which were opposed to immigration, their views about skilled migration were much more positive.
- Skills shortages were a theme of interviews with employers and in the focus groups with the public. Recruitment from overseas had allowed employers to fill skilled and specialist roles and enabled some organisations to expand. While accepting that some specialist posts are difficult to fill, focus group participants also believed that skills shortages result from an unwillingness to work among some sections of the UK population and resulted sometimes from barriers to moving off welfare.
- Focus group participants tended to see cost issues as a key factor in why employers recruit migrants while these were less important than other factors for employers when recruiting for skilled posts.

- Employers reported that migrants' skills are often complementary to rather than substituting for those of UK born employees. While focus group participants accepted that this was sometimes the case, they were uneasy about all-migrant teams. There was particular concern where this was seen to result from networking among migrants, discriminatory recruitment practices and exclusion of UK born workers.
- A number of employers said they need people who can 'think global', who have a perspective on and understanding of the international nature of the business. Focus group participants felt that the UK born now need to 'up their game' as labour markets become increasingly global.

The effect of migration on employees and teams

- Focus group participants identified a range of benefits of working with people from different backgrounds and who brought different perspectives and approaches. They also saw benefits to end users of services, for example in health and social work.
- When discussing the disadvantages of immigration, participants expressed particular concern for its perceived impact on opportunities for young people born in the UK. Some felt it has become easy for employers to recruit ready-trained and experienced employees and that training is disincentivised. At the same time, employers say they do not recruit migrants as a substitute for training in the skills they need.
- Focus Group participants also argued that young people are ill-prepared for employment, and lack technical and employability skills. They believe that the UK education system and individuals themselves need to change so that the UK born do not lose out in the jobs market. This was not raised by employers in the research.
- The effect of immigration on communities was raised by some focus group participants. Some felt that immigration has contributed to lower levels of social cohesion in some communities but that policy changes in housing probably had a greater impact.

Diverse teams and productivity

- Employers believe that the different experiences and perspectives of migrants create teams with different strengths and make workplaces more dynamic. The report includes a number of examples of how employers benefit from the perspectives and approaches of UK born and migrant employees. These benefits were readily acknowledged by focus group participants.
- Diverse teams were also seen to sometimes bring challenges, in particular for communications, where language skills and cultural understanding were deficient. These challenges were also reported by employers, but were generally felt by both employers and focus group participants to be relatively minor and outweighed by the benefits.

Findings from the quantitative analysis

- Our analysis shows four main results in relation to migration and productivity:

- Descriptive analysis documents that between 1997 and 2007 the presence of immigrants has been increasing in most sectors, with immigrants being on average more educated and tending to work longer hours than natives;
 - There is a positive correlation between the share of immigrants in region-sectors and labour productivity.
 - Our analyses show a positive and significant association between increases in the employment of migrant workers and labour productivity growth in the time period analysed; even after controlling for changes in the skill mix of the workforce, a 1% change in immigrant share in employment is associated with an increase in labour productivity of 0.06% to 0.07%.
- Our results are particularly notable in that they attempt to abstract from the direct effect resulting from migrants (on average higher) skill levels, suggesting that the indirect positive impacts of immigration on firms highlighted in the qualitative research may be associated with increased productivity at firm level, though causality is not known. Given that we do not have data on the migrant-native composition of the workforce of individual firms (the quantitative analysis is at region-sector level) the results must be regarded as preliminary at this stage. Further research is also required to establish the nature of any causal relationship.

Conclusions

- The focus group discussions indicate that public concern and knowledge about migration is largely focused on low skilled work, yet it is only part of the picture; in fact migrant workers' skill levels are on average higher than those of the native born. This has important implications for migrants' role in the UK economy.
- Our findings suggest that the need for skilled migration may be more widely accepted than is often believed, but that there is a considerable gap between employers' views and public perceptions on employers' motivations for recruiting migrants..
- The recruitment of migrants in roles and with skills which complement those of native workers was viewed more positively by focus group participants than substitution of locals by migrants.
- There is a mismatch between what employers say they do and what the public believes they do in terms of growing talent from within the UK. Employers and the education sector do not appear to articulate clearly their efforts to develop skills within the UK.
- In relation to skilled and highly skilled roles, there is a need for more robust and reliable evidence on the question of whether employers in general believe that young British people lack the skills and qualities which they need, or whether such evidence is anecdotal and results from media coverage of statements by high profile individuals.
- The factors which lead to all-migrant teams include the nature of work, contract terms, inflexibility within the benefits system and the role of employment agencies. These are not easily addressed, especially through migration policy, but clearly influence public attitudes towards migration.

- In the workplace, diversity and migration were seen to work well. Our findings suggest that many UK-born employees have benefited from working with migrants. It is also possible that many who work in diverse teams give little thought to this feature of their working life.
- Both employers and focus group participants identified some downsides to recruiting migrants which are likely to affect productivity.
- Migration is about mobility, not just about immigration to the UK. Opportunities for mobility both in post-compulsory education and in employment, should to be included in careers education programmes.
- Current debates about productivity and migration have been largely confined to academic circles, yet these findings can be understood by wider audiences and could be more widely disseminated.

Chapter 1 Introduction

1.1 Background

The debate about the economic impacts of migration, in the political arena and in policy and research communities, has focused on the short-run impacts on labour markets, public service and public finances. These have taken centre stage in recent Government announcements and debates about social impacts, fuelled by perceptions of public opinion on migration and concerns about the potential impact of any future EU migration on jobs and services. While it is widely believed that there are costs to migration, the work ethic of migrants has become a recurring theme in media coverage of both employers' and general public views¹. However, at the same time, a number of opinion polls indicate that the public does not believe there are economic benefits to immigration (Ashcroft, 2013)

In terms of its macroeconomic effects, it is frequently asserted that the economic impacts of migration, whether positive or negative, are likely to be small (see, for example, House of Lords, 2008; Migration Watch, 2011). The main identified impact is the increase in both population and GDP, but with little impact, at least in the medium to longer term, on Gross Domestic Product (GDP) per capita or unemployment and employment rates. Existing research is broadly consistent with the view that, in the UK context, fiscal effects are likely to be positive, but not of huge macroeconomic significance.

In terms of employment and wages, research suggests that where immigrants are complements to natives, their economic impact is positive, but relatively small. Where they are substitutes for natives then the impact is almost insignificant. Portes and Lemos (2008) and Lucchino et al (2012) found no statistically significant impacts on natives' unemployment rates. A review by the Migration Advisory Committee, using different methods, found a limited but transitory impact for some migrants (MAC, 2012) while other research found some wage impacts, but these are relatively small and of little macroeconomic significance (Nickell and Salahadeen, 2008; Reed and Latorre 2008).

But existing macroeconomic research has a serious shortcoming: analyses are based on standard, short term or point in time models. When this perspective is applied to trade, estimates of benefits are also relatively small. Yet most economists believe that the economic benefits of trade are quite considerable, and that static estimates are not the whole story or even the main point; the benefits are dynamic and arise from competition and specialisation rather than simple static comparative advantage. Therefore, trade has a number of dynamic effects. These include increased competition between different producers, diversification of the supply chain across the EU, increased incentives for technological innovation, and other important effects that increase productivity in the medium to long term. This is well understood in the debate about trade policy, it influences policy making in this area, yet migration is viewed in more narrow and static terms.

There is a growing body of qualitative research on the value of migrants to productivity and competitiveness, which has examined skills and impact on labour markets and workplaces. However, much of the focus of the research has been on low skilled work (e.g. Metcalf et al, 2009; Green et al,

¹ See, for example, statements by celebrity chef Jamie Oliver, which attracted considerable media attention <http://www.bbc.co.uk/news/business-23860811>

2013). Research carried out by NIESR for the Migration Advisory Committee on higher level skills found that skilled migrants make positive contributions to business operations and innovation and that this is not only through their technical skills but for their knowledge of markets, language skills and cultural knowledge and understanding (George et al, 2012). Therefore, employers may experience both skill-based and wider benefits to employing migrants, which lead to benefits including increased productivity and competitiveness. A number of possible channels are suggested: first, employers can draw on skills and aptitudes which are different and can be transmitted to non-immigrant colleagues (and vice versa); secondly migrants may have skills which are complementary to trade in goods and services, because of immigrant networks or for other reasons; and thirdly, migrants may have distinct skills, which might increase competition in particular labour markets, increasing the incentive for natives to acquire certain skills. In addition, research evidence points to the effects of workforce diversity, resulting from migration, in increasing productivity and innovation.

However while such benefits are plausible, there is little evidence on how these benefits are experienced and how they are transmitted. We do not know how and in what ways employers and non-migrant employees benefit from the presence of migrants in the workplace. While opinion pollsters have asked about broader views on migration and its impact on employment and society, the workplace experiences of people who work with migrants are largely unexplored. Consequently, analyses of skills impacts are static: there is almost no evidence on whether the skills and qualities of migrants are transmitted to non-migrants and therefore whether the effects of migration are dynamic at workplace level.

In conclusion, we currently lack either a good theoretical framework or a significant body of empirical work on these broader potential impacts of immigration. This evidence gap is well recognised by policymakers: the Migration Advisory Committee, in its recent report on the impact of migration, states

'The resident population gain via any 'dynamic' effects of skilled immigration on productivity and innovation – these exist and may be large, but they are elusive to measure.'²

The aim of this mixed-methods project was to examine whether such benefits exist through moving the focus of research and debate to the broader impacts of migration. These are more difficult to measure, particularly quantitatively, but also more important. The objective was therefore to improve the evidence base on such impacts, to build a stronger theoretical framework, and to explore how this evidence might inform the current policy debate and decision-making on migration.

1.2 Stages of the research

Our research is unusual in its combination of three separate approaches: qualitative interviews with employers who recruit migrants; focus groups with the general public and analysis of quantitative data on immigration and productivity. The two main stages were:

- **Qualitative research on the value added by migrants to organisations in which they are employed**, including technical skills, areas of knowledge and expertise and complementarity to

² Migration Advisory Committee (2012) Analysis of the Impacts of Migration

non-migrant employees. We carried out 15 new case studies of employers and re-examined data from earlier research. To explore the perspective of employees about the impact of migration at workplace level as well as broader perspectives on issues of migration and the labour market, we carried out focus groups with members of the public. Focus group discussions were structured around the areas of the research – why employers recruit migrants, how they benefit and the impact on native workers.

- **Quantitative research that investigates the relationship between the presence of immigrants in the workforce and productivity in UK companies.** Empirical analysis was carried out on a specially constructed dataset that combines both firm and individual data, aggregated at sector and region level. We controlled for migrant (and native) skill levels, as well as other variables, allowing us to focus on the potential indirect or spillover impacts of migrants on overall productivity.

1.3 Structure of the report

In Chapter two we summarise the findings of existing research on migration and productivity. In Chapter three we present case study evidence from interviews with employers. In Chapter four we first summarise evidence on public attitudes towards immigration and then the findings of focus groups with the general public. In Chapter five we present the findings of the quantitative data analysis on migration and productivity. Finally, in Chapter six we bring together findings from all the stages of the research to draw some conclusions.

Chapter 2 Existing evidence on migration and productivity

The controversial debate on increasing immigration in the UK has focused largely on the impact of immigrants on natives' labour market outcomes. As we described in Chapter 1, effects are generally found to be positive, but small (Dustmann, Frattini and Preston, 2013; Manacorda, Manning and Wadsworth, 2012 (MMW, 2012 hereafter); Lucchino, Rosazza-Bondibene and Portes, 2012; Rienzo, 2010). The extent to which the UK economy benefits more widely from the increasing supply of foreign-born workers has received less attention than the impact they may have on unemployment and the wages of natives. Therefore few empirical studies have investigated the effect of immigration on productivity (and hence prosperity and GDP per capita). However, this issue is particularly important to policy development, since the government and the Migration Advisory Committee have focused on the impact of migration on GDP per capita as a key indicator of the desirability or otherwise of migration; and, over the longer run, the key determinant of the impact of migration on GDP per capita will be its impact on productivity.

As pointed out by the MAC (2012), GDP per capita is a better measure than GDP because it takes into account of the fact that immigration increases not only GDP but also population. There are different channels through which immigrants may contribute to economic activity and therefore economic growth. Firstly, immigrants may contribute to increased productivity by increasing the human capital stock of receiving countries: immigrants arrive with specific skills and aptitudes and transmit those to non-immigrant colleagues (and vice versa); and they bring knowledge of and connections with the markets, the populations and the economies of their home countries (Peri and Requena, 2010). Secondly, an increase in labour productivity may occur if immigrants are a complement to some groups of natives (Quispe-Agnoli and Zavodny, 2002). Where this happens, migrants could increase the incentive for natives to acquire certain skills by boosting competition. Thirdly, immigrants can also influence the way in which firms conduct business, as well as the development of industrial structure by affecting the relative price of inputs and the choice of production technology (Kangasniemi et al, 2012).

Policy and public debates on the increasing share of migrants in the UK population and workforce have largely focused on the short-term impacts of migrant workers on labour market outcomes of natives. Much research shows only small, sometimes positive, effects on UK-born workers (Dustmann, Frattini and Preston, 2013; MMW, 2012; Lucchino, Rosazza-Bondibene and Portes, 2012; Rienzo, 2010). The extent to which immigration may contribute to the UK economy more widely, through for example, innovation, diversity and on productivity, has instead received less attention, in both quantitative and qualitative research.

At an aggregate level, recent research suggests that the immigration increases (per capita) GDP (which in turn broadly implies that it increases productivity). Examining cross-sectional analysis of around 146 countries, Ortega and Peri (2013) find that openness to migration plays a role in accounting for cross-country differences in income per capita. In similar vein, Alesina et al (2013) analyzing data for 195 countries from 1990 to 2000 find a positive and robust correlation between birthplace diversity and productivity, with the association being particularly strong for the diversity of immigrants, especially for skilled immigrants in richer countries.

The international literature explains that immigrants may contribute to growth through different channels. For example, evidence in the US suggests that immigration is associated with increased innovation (Kerr and Lincoln, 2010; Hunt and Gauthier-Loiselle, 2010) for a number of reasons. Immigrants are more likely to register patents, which in turn leads to an increase in patent activity. Additionally, Immigrants may contribute to innovation directly, through research, and indirectly through positive spillovers on fellow researchers, or by simply providing complementary skills (Hunt and Gauthier-Loiselle, 2010). While much qualitative research has focused on the reasons why employers recruit migrants (see below) it has also found migrants' skills, particularly at the higher end of the skills spectrum, may be complementary to those of natives (George et al, 2012). Quantitative research from the UK shows other positive effects, in particular that a culturally diverse setting due to the presence of migrants contributes to the innovation and impacts on other aspects of firm performance (Nathan, 2011; Lee and Nathan, 2013).

When immigrants arrive in the country they bring not only their country specific skills, aptitudes and transmit those to non-immigrant colleagues but also bring their knowledge of and connections with the markets, the populations and the economies of their 'mother' countries (Peri and Requena, 2010). Additionally, an increase in labour productivity may occur if immigrants are complement to skills of natives (Quispe-Agnoli and Zavadny, 2002). They may also increase the incentive for natives to acquire certain skills by boosting competition. Migrants can also influence the way in which firms conduct business, as well as influence the development of industrial structure by affecting the relative price of inputs and the choice of production technology (Kangasniemi et al, 2012). Since skilled migrants are more likely than skilled native workers to specialize in jobs requiring analytical and quantitative skills (George et al 2012), their contribution to productivity may be higher in leading sectors of the UK economy, such as the financial sector or the IT sector, for which their skills and knowledge are particularly crucial.

The effect of immigration on productivity, at the level of a workplace or sector, is the result of a complex interaction of different factors. It may be positive or negative, depending on the characteristics of migrants, institutional arrangements, complementarity between immigrants and natives, as well as natives' response to immigration. Those reasons may, at least partially, explain why the existing international findings relating to the effects of immigration on productivity are mixed. For example, for the US Quispe-Agnoli and Zavadny (2002) use a state-level data to estimate the effects of immigration on firm productivity in the manufacturing sector from 1982 to 1992 and find that labour productivity increased more slowly in states that attracted a larger share of immigrants, both in low-skill and high-skill industries. As pointed out by Quispe-Agnoli and Zavadny (2002) the effect that immigration inflow has on the productivity of a sector depends on the relationship between output, labour, and capital. Focusing the analysis on the same sector, and based on the importance of other mechanisms other than changes in factor prices or employment rates for responding to changes in the labour supply Lewis (2003) shows a negative impact on productivity. By contrast, Huber et al (2010) provide evidence that immigrants - particularly highly-skilled immigrants - play a positive role in productivity developments in industries which are classified as 'skill intensive'. More recently Peri (2012) estimated the effect of immigration on productivity, capital intensity and the skill-bias in the US. Using aggregate micro data for fifty US state economies between 1960 and 2006 he found that immigrants tend to increase total factor productivity significantly. This finding is explained by an efficient specialization of immigrants and

natives in manual-intensive and communication-intensive tasks respectively, resulting in an overall efficiency gain.

Research from Israel (Paserman, 2013) suggests no positive effect of immigration on productivity. Using both firms and industries level analysis for the manufacturing firms Paserman (2013) investigates whether the surge in productivity that firms and industries experienced during the second part of the 1990s was associated with the higher concentration of highly skilled immigrants from the former Soviet Union who were disproportionately employed in manufacturing between 1989 and 2001. His findings show no evidence that immigrants share is positively correlated with productivity. Immigration share was strongly negatively correlated with productivity in low-tech industries. In high-tech industries, the results are mixed, but tend to point to a positive relationship, hinting at the complementarities between technology and the skilled immigrant workforce. Therefore migrants enhanced the productivity effects of high-tech companies, though magnitude and significance of the results are sensitive to the econometric specification. Consistent with the firm-level results, the industry level analysis confirms that there is no evidence of a productivity-enhancing effect of immigration independently of technology.

There is a growing body of evidence from qualitative research on the value of migrants to productivity and competitiveness in the UK. Research findings suggest that benefits to employers include the strong work ethic of migrants, including their flexibility and willingness to work over-time (Metcalf et al, 2009; Rolfe and Metcalf, 2009). These benefits have been identified principally in relation to low-skilled work. In relation to more highly skilled roles, recent research conducted by NIESR for MAC found that skilled migrants make positive contributions to business operations and innovation and that this is not only through their technical skills. Employers reported that they recruit migrants as much for their knowledge of markets, language skills and cultural knowledge and understanding. These skills are valued for innovation and expansion on business within the UK, as well as in overseas markets (George et al, 2012). Other research has found that employers value migrants for qualities including work ethic and their contribution to creating a diverse workforce (Metcalf et al, 2009; Rolfe and Metcalf, 2009). Therefore, employers may experience both skill-based and wider benefits to employing migrants, which lead to benefits including increased productivity and competitiveness.

Currently, however, while research indicates that such benefits are experienced, there is little evidence on how these benefits are experienced and how they are transmitted. We do not know precisely how and in what ways employers and non-migrant employees benefit from the presence of migrants in the workplace. Firstly, in relation to skills such as languages, understanding of markets and cultural knowledge, we do not know whether and how these particular skills are transferred to non-migrant employees and of the benefits which non-migrants then gain. Secondly, in relation to non-skills benefits of employing migrants, we do not know whether and how employers benefit from these and how they might be transmitted to non-migrants. As a result of these gaps in evidence, we do not know precisely how and in what ways employers and non-migrant employees benefit from the presence and productivity of migrants in the workplace.

These gaps in evidence are explored in the following chapters using evidence from our case study research. First we look at the practices, experiences and perspectives of employers and then at the perspectives of employees who work with migrants drawn from the general public. We then look at whether the benefits identified by employers and by employees are reflected in data on

productivity. These findings are then brought together in a discussion about productivity and immigration at workplace level.

Chapter 3 Case study research with employers

3.1 Introduction

The aim of the case study research with employers was to explore the value added by migrants to organisations in which they are employed, particularly in terms of productivity and performance. We explored these issues with employers by asking about why they recruit migrants, the costs and benefits and particularly the skills-related reasons for recruitment. Interviews covered a range of issues, including technical skills, skills shortages and migrant specific skills, complementarity, workforce diversity and work ethic.

3.2 The case studies

Fifteen employers took part in the qualitative stage of the research. These were all large employers in four sectors: pharmaceuticals, Information Technology (IT), Higher Education (HE) Science, Engineering and Computing departments and banking and finance. In addition to these 15 new case studies, we reanalysed case study data from the banking sector collected from previous research, for the Migration Advisory Committee, on strategically important skills and migration. As we explained in Chapter one, this previous study was a motivation for the dynamic impact research, and included data of relevance. Therefore, in total, data for qualitative analysis was based on interviews in 20 organisations: 3 pharmaceutical companies, 5 IT firms, 6 universities (Science, Engineering and Computing) and 6 banks³. In around half of the cases, we interviewed employers both at senior management level and departmental level. NIESR researchers with expertise in migration carried out all of the interviews. We used a semi-structured topic guide (see Appendix 1), allowing for discussion of issues of interest to the respondent. Interviews took place between October 2012 and February 2013. We used a framework method to analyse the interview data. This involves identifying and coding responses and themes from the accounts, explanations, views and perspectives of the research participants. This approach is a standard qualitative research method and is generally known as 'grounded theory'⁴.

Contextual factors

We carried out the research against a backdrop of economic and political circumstances, which included recession and the effects of migration policy. In the banks, the economic crisis was affecting recruitment practices to some extent, and the health of the UK pharmaceutical industry was also a key contextual factor. Universities had been affected by recent policy changes in relation to international students implemented in 2012, which had consequences and implications for recruitment of staff. While these factors were clearly of relevance to the research, our focus was on the impacts of migration on productivity and performance, both directly from migrants and also the wider impacts on non-migrants and the organisation as a whole. Although we had not intended to focus on more highly skilled migrants, employers clearly felt that this was the end of the spectrum in

³ Five of the banks were interviewed as part of earlier research for the Migration Advisory Committee (George et al, 2012).

⁴ Glaser, B. and Strauss, A. (1967). *The discovery of grounded theory*. Chicago: Aldine.

which migrants made the most substantial contribution. Therefore, the research builds on our previous research for the Migration Advisory Committee (George et al, 2012).

3.3 Migrants' skills levels and job roles

Case study organisations in all sectors except IT employ migrants in both senior posts and to carry out less skilled work, either as direct employees or through agencies. In the IT sector, migrants were employed in significant numbers only for skilled work. Elsewhere, migrants fill posts at the higher and lower ends of the skills spectrum: for example, pharmaceutical companies employ migrants to work in processing and packaging jobs as well as in highly skilled scientific roles. However, employers in all four sectors said that migration is most important for meeting their skill needs at the higher end of the scale. Reasons for this emphasis on meeting higher level skill needs may include the greater difficulty in obtaining such skills, relative to less skilled labour but appeared also to be driven by concerns about current policy developments relating to migration. As we explain later, these were seen as potentially impacting on their recruitment practices and future ability to meet skills needs. Because of these factors, employers in all four sectors talked mainly of migration and more highly skilled employees.

In some case study organisations a substantial proportion of skilled employees were non-UK born. This applied particularly to universities who frequently recruit academic staff for lectureships, research posts and academic management positions from overseas. Universities need to recruit staff with specific subject expertise to teach students and also to carry out research. However, equally important and less appreciated, is their need to recruit staff with management skills and financial awareness, as well as academic expertise, to lead and manage teams. These skills were reported to be in short supply, since academics do not necessarily have these additional qualities.

Companies in the IT sector very largely recruited migrants who are highly skilled. The majority of these individuals have between three to eight years of experience although some firms reported recruiting a small number of migrants in senior executive posts who are periodically rotated between different offices across the globe. Firms reported that migrants tended to be recruited as IT specialists or programmers for their specific skill set or expertise, or in some cases, because they had more advanced technical skills than local hires. In some cases, firms required expertise in a particular IT program or software such as Oracle in order to meet client needs. One firm, in particular, emphasised that clients' demands for technical skills could be extremely specific. In such cases, the number of years of experience in specific skills were designated by clients for each employee role e.g. Programme Manager, Delivery Manager, Senior Project Manager. In other cases, migrants were employed in the UK because of their experience more generally. This was particularly true for migrants with experience of working in a firm's offshore delivery centre. The nature of such a delivery centre meant that individuals had experience of working on diverse projects in a range of industries. In contrast, firms tended to recruit locally for consultancy and sales staff. Some firms reported that they preferred to hire locals for client-facing roles because they were better able to talk the 'customer's language' than migrants given their shared business culture.

Generally, banks recruit migrants also for their specific skills. In some cases this results from a requirement for a particular skill or cultural background which would not be easily obtained from within the UK, for example an adviser for its Hong Kong desk or where specific languages were needed. However, languages and cultural knowledge are not the main reason for recruiting

migrants: the predominant reason is to obtain essential and often high level technical skills. This was also the principal reason cited for why pharmaceutical companies source some senior staff from outside the UK. The required expertise can sometimes be so precise that companies have links with particular scientific laboratories where highly specialised staff are trained, in countries such as the United States. For pharmaceutical companies, market knowledge is also a key reason for employing migrants, or for transferring staff from overseas sites to the UK for periods of time. In particular, companies need the local cultural knowledge and understanding of staff who also understood the product, brand and company.

3.4 Recruitment methods

In two of the sectors: banking and pharmaceuticals, employers used both open recruitment and temporary moves through intra-company transfers (ICTs). These were used in different ways, with ICTs used to bring in expertise required for shorter-term business or development needs and recruitment used to meet longer-term needs and to fill skills gaps. In contrast, case study employers in HE used only direct recruitment and IT employers relied heavily on the use of ICTS.

Migrants are recruited to university posts through open recruitment, with a tier 2 visa required for recruits outside of the EU. However, among their migrant staff, respondents counted both recent arrivals and many who have lived in the UK for many years, or who have moved back and forth to the UK from their home country and other locations during their academic careers. This reflects the long-standing practice of international recruitment and, among new universities, the period of expansion during the early 1990s. Countries from which universities recruit are largely within Europe or the US but also include China, India and the Middle East. This reflects the supply of expertise, connections between universities, departments and institutes overseas and, more recently, the economic situation within Europe which has increased the supply of these applicants. Our interviews in universities were located in Science, Engineering and Computing departments. The scale of overseas recruitment to academic posts in engineering has meant that some respondents struggled to identify a single member of staff of UK origin. The scale of international recruitment in the UK HE sector is also linked to the expansion of many universities overseas, with some having set up campuses in countries such as Malaysia and Singapore. Others have developed a presence in or formal links with universities internationally, which includes validating degrees. These links are used to recruit and to exchange academic staff.

The overwhelming majority of migrants employed by the respondents from the IT sector were brought to the UK through the Tier 2 ICT route. Firms who used the ICT route spoke of the benefits of having a large resource pool of staff which could be drawn on as and when required. This enabled them to respond quickly to a client's skill requirements when a new contract was won.

Two firms also spoke specifically of using the ICT route when they required additional employees with existing knowledge of the firm's delivery system who could begin work with no additional training. One such firm acknowledged that they used the ICT route because they were aware that the skills required for the advertised positions would not pass the Resident Labour Market Test. The other firm commented that they used the ICT route rather than Tier 2 (general) because they preferred not to take the approach that UK applicants did not meet their skill requirements.

Recruitment of migrants by IT firms was global but with a heavy emphasis on India and other emerging markets such as China. In some cases, the particular focus on Indian migrants was linked to

the fact that the firms in question were Indian companies. However, even for those firms which were based elsewhere, there was still a large emphasis on recruiting from India. This is linked to the development of the offshore delivery model which has resulted in India becoming a global hub for the ICT industry. As a result, companies have invested heavily in training centres, particularly in Bangalore (known as the 'Silicon Valley' of India') and Chennai (the business processing outsourcing hub of India). Such centres produce a large number of highly trained individuals which act as an internal pool of employees who can be utilised as and when required.

Whether migrants are targeted

Within the four case study sectors, only the IT industry specifically targeted migrants, and did this through its use of the Intra-Company Transfer route. Elsewhere, although migrants were frequently recruited, they were usually not targeted, except where specific skills were being looked for which were known not to exist in the UK.

Respondents from the finance sector stated that their recruitment efforts were directed largely within the UK and that they did not specifically target or aim to recruit from overseas. In general, universities also did not aim specifically to attract overseas applicants for engineering, science and computing posts. However, as we described above, it was reported as common for job adverts to attract very small numbers of UK applicants. This was most commonly reported where numbers of applicants were small, but was also reported where they were high. For example, a university had recently advertised several posts in a new, prestigious, science research facility. The advert attracted 350 applicants of whom 30 were invited for interview. Of these, only one was from the UK (although others had applied from within the UK but were migrants). The respondent regretted that, not only was the number of UK applicants small, but the quality was lower than non-UK applicants.

Because of the need to attract research 'stars' and individuals with specific expertise for teaching programmes, universities also practised headhunting on occasion. This was usually done through existing members of staff making approaches to potential candidates for senior posts. However, some respondents said that this practice was not used to identify non-UK applicants, but to target the best candidates. It was of little consequence or interest to respondents in the universities whether these were UK born or migrants.

In contrast to other sectors, firms within the IT sector specifically targeted migrants, particularly for roles with technical skill requirements such as programming. In some cases, where specific skills were not otherwise available, migrants were recruited through the Tier 2 general route.

3.5 Reasons for recruiting migrants

Skills shortages

Skills shortages within the UK have been a key motivation behind international recruitment. This is formalised in the points-based visa system. In the case study organisations, skills shortages within the UK were a factor behind the recruitment of migrants. This was particularly true of universities where respondents reported a shortage of UK applicants for academic posts, including lectureships. They believed that this might be partly because such posts are unattractive to some applicants, in offering short-term contracts. However, in some academic areas, for example engineering, absolute shortages of academics in the subject were the main driver. Therefore, one respondent in the

engineering department of a new university said that they receive only around 30 applications for a lectureship job and sometimes fewer than 10 (H2a). Shortages were reported to be particularly acute in civil and structural engineering, which has been on the UK Border Agency shortage occupation list in the past, though not currently. Quality was also a factor in recruiting migrants. One university said that applicants from outside the UK were of higher quality, explaining that:

'We get far more credible applications from outside the UK, and I'm including the EU in that statement but outside the UK, far more than we do from inside the UK' (H5)

Elsewhere, employers also reported that they recruited from overseas because of an absolute shortage of UK applicants or a shortage of the necessary quality. Therefore, a pharmaceutical company said it experiences difficulties recruiting staff in specialist areas such as health economics. Specific technical and scientific skills are also often found outside of the UK, because they are in scarce supply. For drug development, pharmaceutical companies need to recruit experts in particular fields to lead research and development in specific area. There is a limited number world-wide because of the extensive specialised knowledge and experience required to do this work. As one respondent argued:

'Training somebody to make a curry versus training someone to be able to develop an Alzheimer's drug is a little bit different you know. I've been trained to make a decent curry, I can't make a decent Alzheimer's drug' (P2a).

The representative of a bank explained that there is a constant need to look for skills in particular areas of expertise and in areas of growth for the organisation. However, they did sometimes find that some skills were in short supply in the UK, for example in credit risk management. Banks also reported that their need for expertise in specific IT programmes or systems is also sometimes met from overseas applicants.

Where skills are particularly scarce, it is particularly important to widen the recruitment net overseas rather than to expect to obtain expertise from within the UK. Similarly, one employer from the IT sector described how when they required someone with a niche skill, they were much more likely to find such an individual from India than elsewhere. This is linked to the global delivery model and BPO described earlier. In some cases, shortages within the IT sector were related to skill level rather than simply to specific skills, with one firm commenting that they struggled to find individuals in the UK with the necessary skill level in certain programs or software such as Product Lifecycle Management, software which is often utilised by the aerospace and defence industry.

Some universities said they frequently recruit from overseas in particular disciplines and for particular expertise. Respondents gave a number of examples of expertise in short supply in the UK. This included subject experts with a particular approach to their subject. For example, one (CM) said that the Political Economy department of the university experienced difficulty recruiting from within the UK because of the emphasis on theory rather than policy within UK economics, describing this as the 'mirror image' of engineering, where the UK concentrated more on practical skills than on theoretical grounding. Another respondent talked of a shortage of UK students studying in specific engineering fields, such as heavy electrical engineering, and the need to recruit post-graduates and academics from outside the UK.

IT companies also reported recruiting overseas for particular expertise although the nature of this expertise varied quite widely. In some cases, firms recruited migrants because they had a wider range of technical skills which they had utilised on a number of projects in different sectors. Firms contrasted such experience to IT programmers from the UK who they felt tended to specialise more in one sector and in a specific skill. In other cases, firms explained that they recruited migrants (through ICTs) because they needed staff who understood and had experience of the firm's specific delivery process and systems, seeing this as crucial to their ability to deliver projects on time and to the highest quality.

Universities also referred to the need to recruit PhD students from outside of the UK. Shortages of PhD applicants were explained with reference to the availability of employment for engineering and science graduates and to fees, loans and debt which discourage young people from further study. The long and slow career path in some academic subjects, for example maths, was also considered to be a deterrent for UK students to pursue research. A number of respondents in universities referred to competition for high achieving graduates and post graduates from the private sector, including manufacturing industry and the finance sector. University engineering departments face strong competition from the manufacturing sector, particularly the automobile industry. This results in a relatively small pool of junior researchers and lecturers from which universities can recruit.

The difference in salaries between the Higher Education and other sectors continues to present a barrier to recruitment of individuals at later stage in their career. It also leads to a loss of current staff for more highly paid jobs in industry. However, one respondent noted that this applied less to applicants from outside the UK, who found academic salaries more attractive than UK residents. One respondent observed that some countries with a strong education system offer poor academic job opportunities because they do not have a strong Higher Education structure or research base. Therefore, these individuals find the UK an attractive prospect for developing their careers.

One respondent commented that banks are becoming less attractive to prospective applicants, migrants and non-migrants. A respondent from a bank explained:

'The banking sector has taken quite a lot of hits in the last couple of years from bad press, so I also think some of the potential migrant workers and non-migrant workers are looking at going elsewhere' (F1)

Recruiting the best applicants

While migrants are recruited to meet skills shortages, respondents across the four sectors stated that Migrants are also recruited simply because they applied and were the best applicants for the job. This was most frequently stated by respondents in universities and in the case of IT positions in banks requiring investment skills. Therefore, a number of respondents explained that neither they nor their institutions went out of their way to recruit from overseas, but that this resulted from their aim to find the best in a particular field.

While the motivation for recruiting the highest quality staff in banks and pharmaceutical companies was essentially commercial, universities had a particular incentive: they face pressure to source the

highest ranking and productive academic staff to score highly in the Research Excellence Framework. This is the system for assessing the quality of research in UK higher education institutions. This has placed pressure on universities, particularly those in the Russell Group to attract and retain research 'stars'. As outstanding individuals, these are in short supply and are sourced internationally. This practice was reported to have increased in recent years, alongside increasing pressure on universities to achieve high rankings in their research activities. The period of our research coincided with the lead up to the next exercise and universities had recently recruited with this need very much in the forefront of their decision-making.

A number of respondents pointed out that much of academic research and expertise is international, and this particularly applies to the disciplines of engineering, science and computing, which were the focus of our investigations.

Cost and flexibility

As we have explained, migrants are generally recruited either because of a shortage of UK applications with the specific skills required or out of a desire to hire the best possible candidate. However, within the IT sector, other factors such as cost also come into play. Indeed, some respondents from this sector indicated that they recruit migrants through the ICT route rather than hiring locally because of the project-based nature of their work. One firm explained this by saying that when a project ends, they do not know whether they will continue to have a need for a particular skill set or experience level. In such a scenario, the company may not be able to immediately utilise the individual on another project and they may effectively end up 'sitting on the bench' for a period of time. Firms explained that the cost involved of paying someone but not being able to utilise them on projects was substantially higher in the UK than, for example in India. As a result, the ICT route was more cost effective since, upon completion of the project, the individual would return to India, and could then either be utilised locally, be deployed onto another project elsewhere or 'sit on the bench' until their skills were required on a project.

The employment of migrants was also linked to the need for flexibility within the IT sector. Principally this was related to firms' need to adjust their workforce in accordance with their client demands. For example, one firm explained how when they took on a new project, they may need 50 or 100 individuals in order to execute that project. In addition, the firm need to ensure that the project can be delivered within the time frame proposed by the client. The firm went on to add that the recruitment of such a large number of staff within a short time frame would not be possible without the Tier 2 ICT route. Thus, recruitment of migrants through the ICT route ensures that firms possess the flexibility required in order to deliver projects on time and to clients' specifications.

Building a mobile and global workforce

Public debate on migration frequently presents the recruitment of migrants as a choice which employers make, over recruitment of natives. However, case study employers did not have such a perspective either on their recruitment practices or on their workforces. Rather, many saw the international nature of their workforce as fitting in with their business operations. Therefore, having a mobile and global workforce was seen by many respondents as essential to the organisational success.

In both the banking and IT sector there is an expectation that staff would be mobile, particularly where businesses were expanding overseas. The banks and pharmaceutical companies also value international expertise and saw this as essential for senior staff. Respondents in all sectors spoke of the importance of having senior staff who can think 'globally' rather than in terms solely of the company/institution or the UK. This was particularly true for the case studies from the IT industry, all of whom were large foreign companies operating globally. However, such an approach also applied to universities, which one respondent called 'global enterprises'. For universities, this perspective was seen as natural and one respondent, the head of a computing department, was perplexed by his institution's appeals for departments to be 'international' in outlook, since he felt that this was embedded in his department's approach. It was also seen by other respondents as part of individual academic mindset, with many academics seen as more confident working outside of their home country than those from other professional backgrounds.

A number of respondents commented positively on the international nature of their business. These included respondents in universities who spoke of the benefits of having an international market in engineering. Mobility was seen as part of this healthy and competitive market. However, some university respondents believed that there was still some way to go for UK universities to improve their global perspective and to compete on the world stage. Therefore, examples were given of initiatives to develop this further, for example through establishing courses overseas to which staff were sent to deliver lectures.

In the IT sector this was largely due to the global delivery model typically associated with IT consulting and services. A key characteristic of such model is the use of both on-site and offshore resources and, indeed, all of the companies interviewed made reference to this. Essentially, this means that companies are able to provide services to its clients at optimal cost by mixing costlier 'on-site' resources with cheaper 'offshore' resources. In the case studies conducted in this research, this meant that implementation and delivery of services to clients was often carried out in offshore delivery centres in the global south where resource costs are lower. Such centres were predominately located in India, but some companies also had centres elsewhere, for example, in China or Brazil. The practicalities of this process of off shoring meant that companies frequently needed to bring staff working in their offshore delivery centres to the UK to meet clients, understand their requirements and begin the process of implementation before returning offshore for the delivery phase. This fluidity in staff movement was seen as key to the firms' ability to meet their client needs and deliver an efficient service.

ICTs were also used elsewhere. The pharmaceutical companies also make regular use of this route to move professional and managerial staff between international sites. To some extent, these transfers are for staff's own development rather than for the benefit of the business directly. It is seen as particularly important that senior staff, and those on a career trajectory are able to experience operations at Headquarter level. Graduate recruits are another group which companies needed to move around, for their own development rather than to meet business needs. Banks and pharmaceutical companies both referred to the importance of this form of mobility to the development of potential senior staff. Banks saw this mobility as equipping staff with an understanding of different approaches to achieving the same objectives. As one respondent explained,

'It teaches us a bit more about either flexibility or operational management of different things and there's all sorts of people skills that you learn from other people' (MB5).

However, while much of this mobility is for staff development, mobility was also used to meet particular business needs drawing on specific, rather than general, overseas experience. Companies which are the global Headquarters of the company said it is important to have the flexibility to move employees in and out of the UK for periods of time to meet such needs, and that ICTs enable them to do this. A pharmaceutical company gave an example of how they had used an ICT to give wider experience of the business to a HR director in their Pakistan business. The additional experience in global ethics, and experience of working with an international team in the UK, enabled this member of staff to take on a senior post in the company's headquarters in another European country (P2a).

3.6 Productivity effects of employing migrants

A number of the benefits to employing migrants concern general productivity gains and the quality of their skills and performance, although specific skills were also seen to have this benefit. These gains were not explained with reference to work intensity, for example longer hours worked or lower levels of pay for migrants. Respondents did not feel these measures of productivity were applicable to highly skilled migrants such as lecturers, researchers and financial experts. As the representative of a bank remarked, these kinds of productivity increase are obtained through outsourcing, where wages and other costs are reduced, rather than through recruiting skilled migrants or moving them to the UK through ICTs.

Skills effects

The main productivity benefits were identified first in the level of skills of migrants, secondly in their quality and thirdly in their contribution to highly skilled teams. We have described the first of these factors already in relation to how skills needs led to the recruitment of migrants or use of ICTs. However, once recruited, employers had found that the skills sets of migrants differed in a number of respects to those of natives.

Employers in the IT sector described how the migrants they employed through the ICT route had experience of working on multiple projects in different industries usually as a result of being based in the firm's offshore development centres. For example, one firm compared migrants' diversity of experience with UK hires saying that the latter often came from a specific industry background and thus did not have the multi-industry and multi-platform expertise that migrants did. Migrants' experience of working on diverse projects in a range of industries also led to improvements in specific skills. For example, one company highlighted how migrants' crisis management skills were extremely well developed as a result of their experience of working in the offshore team:

'Skills wise, they exceed what we can have. I think they're also very good at dealing with crisis management, because...if a system goes down because of a client site, it would be the offshore team, so the team based in India, that would be dealing with it.'

Migrants' diversity of skills also relates to the training they receive at firms' training facilities in India. Indeed, respondents noted that the scope for training in India is much greater than in UK both

because of the lower cost of providing such training and because of the large numbers of staff involved which yield greater economies of scale. Such training was holistic and involved developing staff's coding and testing skills as well as giving them experience of consulting and project management. One such respondent noted that they had recently begun providing internships to a small number of individuals from the UK. Once recruited, the interns would be sent to India for a one year training programme after which they would have the option to become a regular employee and would then be deployed on projects.

Banks recruited internationally for a range of skills, put particularly valued recruits with banking and foreign language skills, a combination which is less commonly found among UK applicants. Pharmaceutical companies noted that post-doctoral applicants from the US have more advanced technical skills than their equivalents in the UK. They were also seen as having better transferable skills, in such areas as communication, presentation and organisation. One respondent explained this with reference to the higher level of PhDs in the USA compared to the UK, which allows for these skills to be developed. It was also argued that migrant post-doctoral researchers are a more select group, often comprising the most successful and ambitious applicants (see later).

The view that young researchers from outside the UK are better prepared for employment in their particular sector was also expressed by respondents in universities. A number of senior representatives of engineering departments compared the UK's practical emphasis in engineering to the stronger emphasis on theory found in other countries, across Europe and also in countries including Iran and China. In comparison with elsewhere, UK courses have traditionally lacked the mathematical and theoretical rigour practiced elsewhere. As one respondent explained:

'In the UK it tends to be often a very practical subject which allows people to function in industrial jobs more quickly perhaps than in other countries.... some other countries give a much more vigorous mathematical education than we do ourselves' (S p7).

While this emphasis might be of benefit to the UK manufacturing sector, it was found to be disadvantageous by universities themselves and led to the need to recruit internationally. This is a complex problem, since there is an expectation on UK university engineering departments to equip graduates with industry-ready practical skills: in fact, one university reported that its engineering department had gone into decline because of its 'European', theoretical approach to the discipline.

Such a view regarding UK universities was also expressed by respondents from the IT sector with one respondent commenting on UK university courses saying that they were not preparing people for specialist technical roles and that individuals were coming out of IT courses with broad IT qualifications that were insufficiently geared to practical work within the industry. The firm in question had previously recruited through the Post Study Work Route and had found that their graduate hires had required significant additional training before they were able to go out on site to a client and deliver. Similarly, another respondent from the IT sector noted that ICT students in the UK were not carrying out a sufficient amount of coding and programming as part of their university courses and as a result required significant additional training before they could be deployed on a project.

In terms of other specific skill advantages, respondents in universities also referred to the knowledge of non-UK funding sources which international staff bring with them. As one respondent explained:

'They bring connections with them which sometimes help us in that way, for example we have recruited staff from the Middle East who have brought contacts from there which have turned out to be quite interesting and useful for us' (H4a).

Conversely, international recruits do not usually have good knowledge of UK funding sources, but this was seen to be more easily obtained by existing staff. Even more importantly, international staff were found to be a means of securing collaboration with individuals and research teams outside of the UK.

Quality of recruits

In terms of the second area of productivity gain, employers consistently argued that the quality of employee they could recruit internationally had productivity benefits. This was partly because the high level skills needed by these employers are in relatively short supply and an international field allows for the best to be chosen. In fields such as academic and scientific research, in universities and leading edge companies, internal competition for undergraduate and PhD places and for academic posts is strong. Respondents believed it to be stronger in some countries outside of the UK, for example China and the US and, because of this, those who succeed are of high calibre. One respondent explained that:

'To reach the top of the pile in a country like China you've really got to be so outstanding. They tend to have had to work really hard and that continues' (H4a)

The higher quality of some migrant recruits could be assessed in some sectors, for example in universities it was stated that international, migrant, applicants frequently are more highly qualified, particularly in terms of having a PhD, and have more academic publications. This was especially noted by respondents in new universities.

Some respondents believed that the greater productivity, in terms of the quality of work, was explained very largely by this factor: that when recruiting from overseas, they were selecting from the best available talent internationally. Therefore, the highest calibre native employees were seen as equally productive as migrants at a similar level of seniority. One university respondent referred to variations in effort and productivity among UK academics as well as international academics which made it hard to make generalised comparisons (H4). However, some respondents felt that highly skilled migrants did tend to be of higher value to the organisation than UK equivalents because of qualities they possessed as migrants. These were considered to be, in particular, strong motivation to succeed, interest in discovering new approaches, working in new environments and welcoming challenges. Therefore, some respondents stated a view that individuals who uproot and move to another country are different in a number of respects to those who stay put.

'They have no restrictions about coming halfway around the world: they're prepared to put themselves in a position where they can work hard and to put that first, in front of everything else. You can see they have been doing that, it shows on their CV because they may have more qualifications.... It's the dedication really. I would say in a word they're more dedicated' (H6).

A particular point was made in relation to migrants who work for limited periods in the UK because they come through the International Company Transfer (ICT) route. This route was used by employers in all of the case study sectors except for universities. Respondents in the sectors which transferred staff through this route said that these were often very motivated individuals, who come to the UK for a particular purpose, for example a discrete project. They were seen as sometimes determined to achieve noticeable results and for their placement to be acknowledged as successful for themselves and for the organisation.

As indicated above, the majority of migrant recruitment within the IT sector took place through the ICT route. Respondents from this sector spoke of gains in productivity in a variety of ways. First, this was related to migrants' quality of skills and particularly with regards to the depth and breadth of their skills. Respondents spoke of direct gains in productivity as a result of migrants' experience of working on projects for a wide range of companies and projects. For example, one firm explained how those individuals who had worked in the global delivery centres were able to draw from their experiences of problem solving in other environments and were thus able to provide an immediate solution which saved both time and money:

...they may have come across similar or the same type of problem in a different customer environment, in a different country where they have approached it again from a different angle and already come up with a solution.

Second, productivity gains were also made through the speed with which they are able to recruit using the ICT route. For one firm, the speed and volume of recruitment through the ICT route was crucial to their ability to deliver projects to clients on demand and within budget. This respondent explained how when they signed a new client, they may require approximately 50 to 100 additional staff to execute a new project:

...so without the ICT route there's no way possible for us to get a hundred people from the market here [in the UK]. We have to rely on ICT to bring in that many skilled people specific to that specific project at that specific time and execute it on the agreed terms.

Third, respondents spoke of how recruitment of migrants through the ICT route meant that their hires were work-ready when they arrived in the UK. Specifically, firms spoke of the benefits of employing migrants through the ICT route because it meant that their hires were already well versed in the company culture and the company's delivery systems and were thus able to begin work immediately. For example, one firm commented:

...they are just ready to go. They come here and they can start working from the next day and whereas what happens was when you hire people from the market you start inducting them into the company and its way of doing things, and then about our delivery model and the customer...

The same firm went on to add that using the ICT route meant they were able to be more efficient with client time and money which was crucial given the current financial climate and the corresponding need for immediate returns.

Cultural understanding

One issue which was covered in the interviews was the benefit, or otherwise, of any different cultural perspective which international recruits bring to the workplace. Some respondents felt that such qualities which migrants might have were not relevant to the business. For example a respondent in the pharmaceutical sector stated that clinical research and development is about scientific understanding and cultural perspectives are not at all relevant. However, other respondents talked of a number of ways in which different cultural knowledge, perspectives and characteristics impacted on the organisation.

Employers who took part in our previous research on highly skilled migration talked of the benefits of employing individuals with an understanding of practices, processes and business behaviour which arise from cultural differences. We found that knowledge of foreign markets and cultures, which are rarely found among high-skilled residents, helped both help to speed up cross-border knowledge flows and make effective use of that knowledge (George et al, 2012). We found that the banks required explicit market and cultural knowledge of the countries or regions they operated in or were targeting for expansion. This was confirmed by our new case studies across the four sectors of pharmaceuticals, Higher Education, finance and IT.

Respondents identified specific mechanisms and benefits. A banking respondent stated that individuals with a background in a country understand the values of those who live there and of nuances in communication. These can be important for business operations but, just as importantly, for understanding how products and services are likely to be received. The representative of a bank explained that:

'If we're designing a product or a piece of technology, we need to understand how other locations work and what their culture is in order to be able to deliver the best fit. You can't just say "London says do it like this" because it might not work for them' (MB4).

A respondent from the IT sector explained how migrants' experience of working in different countries and culture resulted in specific business benefits:

'They're also very good at bridging, maybe, communication gaps, culture gaps, because they have that experience of working in India, or whichever country they're now working in. And you're always going to have communication mishaps...and they're very good at bridging that gap, and allowing for continuity of business and streamlining processes because they understand both sides of things. '

Pharmaceutical respondents referred to the value of employing individuals who understand both the target market, for goods such as toiletries, while understanding business priorities and operations in the UK. Pharmaceutical companies were particularly clear on the importance of having the voice of the consumer or patient from the target country involved in the development of a product, since this brings a tacit understanding of its potential success. This applies to consumer

products, for example toothpaste flavours to the delivery of pharmaceutical products, which may affect their use and effectiveness. As a respondent from a pharmaceutical company explained:

'In certain cultures there might be preferred interventions, so does the patient prefer a vaccine or a tablet, or a patch or a medicine? Is there anything about the colour of a tablet which might make a difference? Does the shape of a tablet make any difference? So there's all sorts of things that you'd need to consider. It doesn't always mean that you need external inventions from other geographies but may well do' (P2a).

In the pharmaceutical industry this is driven by ethical considerations as well as those of business. Therefore, the same respondent quoted above gave the example of delivering an anti-malarial drug:

'Young people are dying of malaria in Africa, there is no point in us developing a malaria drug that we're not going to be able to infiltrate Africa with because otherwise we're not going to save the lives that need saving. We can't just decide they don't want it so we'll not give it to them. We're not allowed, our conscience wouldn't allow us to do and governments wouldn't allow us to do that and the public wouldn't allow us to do that, it's immoral' (P2a).

Therefore, pharmaceutical companies have worked at local level to find ways of delivering drugs, for example in the case of anti-malarial drugs, through banks. This activity requires staff to be mobile to develop such solutions. Such knowledge could be imparted by those on ICTs as well as by recruiting migrants, with companies using both methods.

While cultural knowledge and understanding was a key factor in recruiting and transferring staff between international locations, this was not a motivation for the Higher Education sector. Rather, respondents saw it as a consequence and a benefit of having an international workforce. As we explained earlier, the principal reason for recruiting internationally is to obtain the most successful academics. Therefore, such benefits were seen as an 'add on' by some respondents.

However, some definite advantages in having international staff were identified, which were seen to have direct business benefits. The first of these was in attracting international students. Some respondents reported that the presence of international staff has benefits in being able to attract international students. One respondent, in a new London university reported that it receives a substantial proportion of its applications from overseas and that having international staff helps to attract these and assists the university in its overseas recruitment drives:

'We've appointed a quite a range of staff and we've got a few staff now from the Middle East. I think having them in the school helps to attract more Middle Eastern students because they feel that there is someone who understands their approach' (H4)

A second advantage was identified in being able to meet the needs of international students. Therefore a number of respondents in universities talked of the benefits to international students of having academic staff from their own countries. For example, case of recruiting a Chinese academic

‘She wasn’t selling herself in that way at all, it’s we who understood we had a problem, a cultural problem with our Chinese students. Well, here is somebody who could have explained their problems to us’ (H3b)

It was also suggested that international staff are good role models for international students. LM p9 and more widely, that it is of benefit to all students to have contact with academics from different countries and cultural backgrounds.

Specific benefits were identified in having a range of styles of teaching and personal interaction which arise from cultural differences. This was mentioned by almost all respondents. While to some extent, these differences were seen as individual, broad cultural characteristics were also identified. For example staff from some countries were seen to have a more ‘didactic’ style than is usual in UK-born staff. Similarly, ‘respect’ and hierarchy in relationships between students and staff, and between staff at more junior and senior levels was seen as important to academics from cultural backgrounds

‘It’s a great role model as well, if you are a student who may be Chinese but you come from East London, to see your professors and lecturers are Chinese, likewise from other nominations, that’s got to be a good thing’ (H6).

This was seen as giving students experience of a range of teaching and interactional styles. A further benefit of having international staff was identified in the increasing expectations on individuals to be mobile during their careers, and that having international staff demonstrates this:

‘The really huge benefits to the University [of international recruitment] are in terms of cultural mix and that is a major benefit because most of our students, at least on the engineering side, will end up being employed in multi-national companies’ (H5).

In addition to the benefits in recruiting students, a number of respondents referred to workforce benefits. A particular benefit was identified in opportunities to build international collaborations, which are measured in performance league tables and to access wider sources of research funding. However, in the older universities, UK staff were seen to be as successful in securing international collaboration and funding as non-UK colleagues. Secondly, having international stars in their faculties was reported as important in attracting other high calibre academics. These were not necessarily international applicants, and it was argued that having an international workforce is essential to a university’s character and reputation. Therefore universities with low proportions of international staff were seen to be less successful.

Benefits of cultural difference to the workforce, as well as for students, were also identified. The value attached to respect for authority in some cultures was seen as having implications for how staff are managed: those with a strong respect for authority may be less likely to make challenges, and this is not necessarily beneficial. On the other hand, one respondent remarked that UK-born staff are more prone to challenge authority:

‘I would say people from the UK tend to have a tendency to challenge much more and, in some cases, just for the sake of it’ (H6)

This respondent, and others, concluded that a mixture of approaches is both beneficial for the institution and for students.

3.7 Knowledge transfer

We have referred to a number of benefits to recruiting migrants, to temporary international transfers and to having international teams. Here we focus more directly on these impacts by looking specifically at team and workforce level benefits, which are likely to impact on productivity.

Firstly, a number of respondents remarked on the role which migrants play in increasing the overall skill level of teams. This happens through use of ICTs to bring particular skills to the organisation and to transfer these over a specified time period. This benefit was identified particularly by the banks and IT companies. In the banking sector, these skills could include knowledge of particular markets, products or technical expertise for example in IT or management. In the IT sector, this occurred through transfer of knowledge on specific IT programmes or platforms. For example, one IT company described how very few individuals in the UK had expertise in PLM software. As a result, they recruited a few migrants through the ICT route and put them to work in a team with a few recent UK graduates. They all worked on a project together and over the course of six months, the UK team members were able to acquire some expertise with the software. In practice, this occurred because of the close proximity with which individuals worked on a team as well as through the migrant team members mentoring those from the UK.

Such knowledge transfer took place as a matter of course resulting from the close proximity with which migrants and local hires worked together. Some firms also indicated that formal structures existed in order to facilitate such knowledge transfer. For example, one firm described how one individual was designated as a learning champion within each project or account. Such learning champions were responsible for bringing together the project team for a learning day each month during which any knowledge transferred between members of the team could be consolidated and monitored.

Such knowledge transfer did not only take place in one direction with firms also highlighting how migrants also benefitted from working with local hires. For example, one firm described how migrants would assist their Sales Director with technical knowledge of the products and delivery models offered by the company and that in turn migrants would benefit from attending client meetings with the Sales Director since they would see how the Director presented, pitched and negotiated terms with clients.

Benefits to team working were also foremost among the benefits identified by pharmaceutical companies. One company had established development hubs to grow new and innovative ideas to expand the business. These were dependent on input from specialists with scarce skills who have to be sourced internationally. These hubs were seen as crucial for the development of the business and also as having the potential to create jobs in the UK:

‘One hub might employ 34 people based around a global specialist and, if we can’t bring that global specialist into the UK, we’ll base our hubs elsewhere’ (P2a).

Scientific development groups also dependent on free movement of staff located in different areas of the global business, to obtain experience and share expertise. Pharmaceutical respondents also explained that recruiting world experts in areas of drug development, for example in dementia, also attracts investment, leading to employment and economic growth:

'If we were able to set up a cell in the UK based on Alzheimer's and we were able to bring the best Alzheimer's researchers in the world into the UK and put them in that team to work with UK people then if that became the world centre of specialist knowledge in Alzheimer's then what you're doing is increasing the skill base in the UK for the future of the pharmaceutical industry' (P2a).

We described some of the benefits brought by international staff to universities earlier. Additional, dynamic benefits identified by respondents included the opportunity of seeing how Higher Education is delivered outside of the UK and incorporating these differences into practice. Particular opportunities for this include secondments to other universities and collaboration on research projects. This was seen to have benefits for teaching practice:

'It gives you an opportunity to see how Higher Education is done in different ways in different countries, and that can influence how the curriculum is developed and delivered' (H4).

A number of respondents in Universities referred to the benefits of having international staff in the opportunities for international collaboration and in accessing international sources of funding.

As we explained earlier, the main motivation for universities in recruiting internationally is to obtain staff of the highest possible standing. This was seen as having benefits for other staff in encouraging them to improve their own performance and was seen as particularly important where morale has fallen due to reduced student numbers and university funding cuts. More positively, having high performing individuals was seen as improving the working atmosphere and making it more vibrant and productive. Therefore, a respondent in one of the new universities remarked the institution had become more outward looking as a consequence of increased international staff numbers and had become more innovative. This was also seen as a benefit of international recruitment by pharmaceutical companies, with one respondent saying that these recruits, because of their background and experience 'have created a buzz' (P2b). Similarly, a respondent from a bank described her own personal experience:

'I walk around the business and I talk to people from all over the world who work here. Personally, I think it's a fabulous thing. I learn, it allows me to adapt' (MB5).

The positive impact of recruiting migrants on other staff was also highlighted by some firms within the IT sector. This was related both to work ethic and enthusiasm for the job. Some firms felt that migrants coming to the UK tended to focus more on their jobs (often because they would immigrate to the UK without their families). Firms felt that this increase in concentration and focus on the job was contagious and could lead to increased commitment and application from other staff.

Respondents in pharmaceutical and IT companies as well as in universities spoke most about the benefits of cultural diversity to team working. In the IT sector, for example, one respondent spoke of how individuals from different cultural backgrounds would look at problems in different ways and that these could lead to innovative solutions within the team. Similarly, universities reported that benefits of cultural diversity are accrued through differences in the way in which a subject can be studied in different countries. Therefore, academics with a strong theoretical grounding in engineering obtained for example in other European countries, complement the more practically-based expertise of UK trained academics. A respondent in a new university expressed the view that teams combining strong theory and strong practice work well. Varied personal approaches arising from cultural differences were also seen to impact positively on team productivity, for example a pharmaceutical company respondent had found that the more up-beat, positive, style of US colleagues combined well with the more cautious and questioning approach of UK team members:

‘There is a cultural and style issue associated with the difference between working in Europe and working in the US, where the US folk tend to be much more positive and ‘can do’. Sometimes in the UK, they tend to find problems with things and point out the challenges that they face. That cultural difference hits when you put teams together across Europe, the UK and the US’ (P2b).

A respondent in a university felt that the mix of cultures in the institution led to more informality in interactions and also greater inclusivity. This was seen to result from the recognition that the organisation benefits from different expertise and perspectives:

‘The style of communication that people have here is very good, it’s quite informal, more informal than other places and that probably comes from having lots of different cultures’ (H6).

Respondents in universities also saw benefits to students in the cultural mix evident among both staff and students in their institutions. We noted earlier the comments of one respondent that many students will work in multinational companies and that the experience of studying in a university with an international outlook helped prepare them for this. We referred earlier to the different style of some international staff, which respondents had observed. Students were believed to benefit from different styles of teaching and presentation which resulted from lecturers’ and teachers’ backgrounds. At the same time, the different backgrounds and expectations of international students were felt to be of value to staff in raising awareness of cultural differences. Therefore, staff had been able to see how they might need to work with international students in a different way to improve their learning experience.

3.8 Disadvantages/costs of employing migrants

We asked employers about any additional costs and disadvantages of recruiting from outside of the UK. The most obvious of these is additional costs of interviewing applicants from overseas, relocation costs and the costs of visa applications. These are potentially highest for employers who recruit substantial numbers of non-UK applicants, for example universities and IT firms.

Firms from the IT sector explained how on the basis of salaries alone, the cost of employing migrants was roughly the same or in some cases slightly lower. One firm went on to add that this lower cost

was due to the fact that they didn't have to pay National Insurance costs for the first two years of employing a migrant in the UK. However, all but one of the companies interviewed from the IT sector indicated that recruiting migrants through the ICT route could be more expensive overall than using local hires (with the remaining firm stating that the cost of employing migrants and locals were roughly equivalent). Companies attributed this additional expense to relocation costs and visa processing costs. One such company commented on the fact that managers were therefore encouraged to hire locally in order to reduce costs but emphasised that ultimately recruitment decisions were made based on whether individuals had the requisite skills and training.

Employers in the other three sectors said that they did incur additional costs by recruiting international applicants, but these were not substantial. With the exception of the most sought-after individuals, travel costs are paid only from arrival in the UK. Relocation expenses are minimal for all recruits, from within the UK or from outside. Some respondents said that costs of visas were considerable, including of staff time. Some respondents, particularly in universities, felt that their organisation did not have sufficient expertise to deal with the visa process efficiently, or did not fully understand the rules surrounding visas. This was seen as unhelpful in potentially deterring applicants. University respondents saw this as exacerbating concerns linked to current UK Government policy on migration.

Respondents in universities identified a number of other costs to employing migrants. These included additional training in university standards and protocol, since these commonly differ substantially between countries. The most significant cost, and disadvantage to employing migrants, was identified in language skills. Migrants without English as a second language sometimes communicate less well than native speakers, and this was reported to be sometimes a problem where students themselves are also non-native speakers of English. A number of respondents said that international students sometimes found the accents of international staff difficult to understand. Some universities provide additional support for lecturers who need to improve their English language skills.

3.9 The impact of UK migration policy on case study organisations

A number of employers expressed concerns about Government policy on migration. Some of these concerns were related to current immigration policy and were voiced most strongly by employers in the IT sector. Such concerns were specific to the Tier 2 ICT visa scheme. For example, two firms indicated that restrictions on visa length had caused challenges on some projects. One firm gave the example of a project which was originally anticipated to last approximately eight or nine months but in actuality lasted for thirteen months. The firm went on to explain that in the past they would have been able to extend individuals' visas for an additional three months. Now, however, the inability to extend short-term ICT visas resulted in the firm having to employ two people in the same job for a one month handover period as well as incurring the cost of bringing that additional person over to complete the project. In addition to these added costs, firms also felt that such a policy had decreased their flexibility and their ability to respond to changes in clients' requirements. One firm also commented on the recent changes to settlement in the UK saying that while 95 per cent of their migrant hires would return to their countries of origin, a small percentage would want to remain in the UK, usually because their children are at a crucial stage in their education. According to the firm,

the recent changes to settlement have decreased the attractiveness of the UK for some potential migrants.

Other concerns related to potential changes to immigration policy including further restrictions on immigration from outside of the EEA. Some of these concerns were raised specifically by the IT industry. For example, some firms from this sector felt that further restrictions on the length of visas could make it more difficult for them to meet their customers' needs, particularly in light of the issue raised above. In addition, one IT firm highlighted their concern regarding proposed changes to the minimum salary requirement for programmers. The firm in question stated that a recent recommendation from the Migration Advisory Committee had proposed an increase in the minimum salary for programmers with more than three years experience from £26,000 to £29,800 and a reduction in the minimum salary for programmers with less than three years experience to £24,000. The respondent was concerned that if such changes were adopted by the government, this could result in IT firms recruiting migrants with less experience which they felt would not be of benefit to the IT sector or to UK businesses who utilise these firms' services. The respondent went on to add that they preferred to bring more experienced individuals to the UK but that if such a change was adopted, this would increase their costs making their services more expensive for clients.

Other concerns were raised by organisations from across the four sectors. Respondents felt that further restrictions on migration from outside of the EEA would result in difficulties in filling senior posts and in recruiting talented individuals can expand business and build capacity. One view expressed by employers was that the Government had gone too far in restricting migration from non-EEA countries. Respondents from the IT sector, in particular, felt that further restrictions on the ICT visas would seriously hamper their ability to deliver projects to clients since contracts are usually signed for a period of three to five years during which the client would expect the firm to be able to provide individuals with appropriate skills as and when needed.

Respondents in universities felt that policy changes and measures which have affected applications from international students may be discouraging potential job applicants from outside of the EEA. In particular, uncertainty over visa renewal was also seen as an issue for non-EEA academics entering on Tier 2. Another respondent, in a prestigious old university expressed a more general concern about the messages conveyed by the current Government, particularly in relation to student visas:

‘The publicity generated, in India particularly, over the changed regulations, puts people off.... So it’s a question of, well, I’ll go to Australia instead, or the States or Canada or Germany where they are reducing their requirements, not increasing them’ (H5).

We asked employers what action they might take if further changes to migration policy led to difficulties recruiting from outside of the EEA. Many had already considered this possibility. Employers from banking and finance and pharmaceuticals saw one measure as more use of off-shoring of functions which would have the consequence of reducing the number of UK employees. Other options included taking UK experts to international locations to gain local knowledge, rather than recruit or transfer international staff to the UK. While feasible, this was seen to be less effective, since international staff had greater understanding of markets in their own countries.

Respondents from the IT sector stated that further restrictions on recruitment from outside the EEA would likely result in them looking to relocate to other countries. For example, one firm highlighted how if they were unable to bring in the required number of staff to the UK, they would look to move their business elsewhere within Europe:

‘So these days, with the EU being freedom of movement, they will probably just move it all to Belgium or to the Netherlands or whatever and then bring people in from there to work.’

Universities were among the respondents who expressed most concern about possible future consequences of restrictions on migration. These were seen as a decline in research and teaching quality:

‘If we don’t have an option to go outside and you have to employ somebody then you may end up with the situation where we have to somehow drop the quality to get people to do the work’ (H2a).

Another university respondent envisaged difficulties in expanding, and possible contraction in terms of courses offered and research activity:

‘My requirement is very simple – I need to recruit enough members of staff with high academic skills to grow the discipline and keep teaching our students, generating research etc. I don’t have any pre-defined ideas or agenda on where that skill set comes from, it doesn’t matter to me at all. But I know that I can’t get any more from the UK because there aren’t enough in the UK to do it. The consequences of not recruiting overseas would be that we would have to reduce activities, there would be no other way’ (H5).

Increased reliance on temporary lecturers was also envisaged, with consequences for the quality of teaching and the university’s ratings on this measure

The consequences of not being able to recruit migrants

We asked respondents what their organisations would do if they were not able to continue to recruit migrants, or to transfer them between locations through ICTs. This prospect was seen to have serious implications for the organisation and for business performance.

As we stated earlier, respondents from the IT sector stated that if they were unable to continue using ICTs this would seriously affect their ability to meet clients’ needs and as a result some firms indicated that they would look to transfer their UK offices to other countries with fewer restrictions on immigration. Alternatives to employing migrants did not appear to be an approach which many firms had considered, largely because their use of migrants is closely linked to the global delivery model on which the global IT sector is based but also because firms felt that any reduction in their recruitment of migrants would require significant, long-term changes to ICT education in the UK. However, two firms did emphasise the fact that they were making long-term investments in local talent. In one case, this was through the introduction of an apprenticeship programme. In the other case, the firm had introduced both an apprenticeship programme and an internship programme referred to previously.

Respondents in pharmaceutical companies said that, if they were not able to recruit individuals from countries where they were targeting markets, they could alternatively transfer employees from the UK to acquire local knowledge and understanding. However, they believed that this would be less productive and effective than the current practice, since such individuals would be less embedded in the culture and to understand detail and nuances.

Universities did identify a number of ways in which their reliance on overseas recruitment might be reduced. These included making improvements to the UK education system, in subject such as computing, to encourage more able students to apply to study the subject at degree level. For example, a respondent in a computer science department felt that IT teaching in schools focused on spreadsheets rather than more captivating activities such as animation. Particular problems were identified in encouraging young people to study engineering, and to continue to post-graduate level rather than go into industry. These problems were seen as long-term and requiring enduring solutions. One suggestion to increase the supply of engineering post-doctoral researchers and lecturers was to encourage graduates who had gone into industry back into research:

'We are looking at running engineering doctorates within industry, so that people who have gone into the engineering industry can be trained to do PhDs, which would then give them the opportunity to come back into Higher Education to teach at a later date' (H4)

In the short term, one suggestion was to reduce fees, either in particular subject areas, or across the board, to encourage more applications to science and engineering subjects. by and reduce fees .

However, while these measures were seen to have the potential to boost the supply of UK applicants, it was agreed that the overall effect of any further restriction on the entry of international academics would be harmful. The new universities said they would have to make more use of temporary lecturers and that this would affect quality of teaching because these staff often do not have sufficient knowledge of current research developments. Recruitment difficulties could also make it difficult to increase student numbers and might lead to contraction in some areas and even closure of departments. However, beyond this, reducing the international make-up of university departments was seen as undesirable, since this would detract from the character of these institutions: 'If we stop being global in nature, we will be a very shallow institution' (H5). This view was also echoed by respondents in the banks, one of whom stated that:

'Without [international recruitment] it's too narrow-minded if everyone was just a British or European national - you would lose the global element of [the company]'

3.10 Key points

Employers recruited from outside the UK where the supply of skills from within the UK is deficient, to recruit high level skills which are in short supply world-wide and to complement the skills of non-migrants.

Where employers recruit to meet shortages, these include skills gaps resulting from failure of the UK to produce sufficient numbers. Recruitment from overseas has also enabled some case study organisations, to expand.

Quality was a key factor in employers' decisions to recruit from outside of the UK. Therefore, all case study organisations said they had to look beyond the UK for the most highly skilled individuals, particularly those with specialist knowledge. Respondents saw the success of companies, institutions and the UK economy more widely as dependent to some degree on recruiting the best applicants.

There was evidence from the case studies that migrants' skills were often complementary to rather than substituting for those of UK born employees, for example through bringing specialist skills, languages and cultural knowledge and understanding.

Employers also believed that the different experiences and perspectives of migrants create teams with different strengths and made workplaces more dynamic.

Aside from meeting skills needs, employers identified a range of business benefits to recruiting migrants. These included being able to attract business to the UK through having migrants with connections overseas.

Employers in international institutions said they need people who can 'think global', through having a perspective on and understanding the international nature of the business. The Intra-Company Transfer route was seen as beneficial in facilitating relatively short-term stays to gain international experience.

Employers were concerned that further changes in migration policy could affect their ability to recruit the skills they need and said they might have to consider taking steps such as off-shoring. They were also concerned that current immigration policy and messaging may affect their ability to attract overseas applicants.

Chapter 4 Focus groups with the general public

4.1 Introduction

In this chapter of the report we present the findings of research with the general public, which was aimed to obtain the views, perspectives and experiences of employees who work with migrants. We look first at existing evidence on attitudes towards migration, which also shaped the focus group stage of the research, in designing our sampling. We then present the findings of the focus groups and what these tell us about dissemination and messaging around issues of migration and employment.

4.2 Existing evidence on public attitudes towards migration

The skills benefits of migration: existing research evidence and rationale for focus groups

People in Britain are more likely than those of other nations to hold negative views about immigration and, in particular, to regard the scale of migration as too high (Blinder, 2013). This is despite the fact that, as Page points out, foreign-born residents make up a smaller population than in some other Western European countries where attitudes towards migration are more liberal. There has been a change in attitudes towards immigration in recent years so that, while younger people and those in higher social class groups continue to be more positive about migration, the gap narrowed between the late 1990s and 2008, with more negative attitudes now prevalent (Page, 2009).

The relative importance of economic and non-economic factors in shaping views

Reasons for opposing immigration have been classified into economic and non-economic with the relative importance of these explored in relation to data at European and international levels. The first set of reasons include skills and welfare impacts; while the second include racial prejudice, notions of national identity and nationalism. Research on attitudes towards migration has focused on the relative influence of these two sets of factors and on personal and social characteristics of those attitudes towards migration are shaped by them. These include labour market participation, skill and education level and GDP levels of the host country.

Making the case for the influence of economic factors on migration attitudes, Mayda (2006) uses data from the International Social Survey Programme (ISSP) and the World Value Survey (WVS), both conducted in the 1990s, before current policy interest and debates on migration. She finds that individuals in occupations which have a higher ratio of immigrants to natives are less likely to be pro-immigration. She finds that the richer the host country, the more positive the effect of schooling on favourable opinions about immigrants. She also finds that individual skill is positively correlated with pro-immigration preferences in countries with high per capita GDP and negatively correlated with pro-immigration preferences in countries where per capita GDP is low. Also using data from the ISSP, O'Rourke and Sinnott (2006) draw similar conclusions, that the higher skilled are less opposed to immigration than the low-skilled and that this effect is greater in richer countries than in poorer countries and in more equal countries than in more unequal ones.

Variation by personal characteristics

Various research studies using the European Social Survey have found that attitudes across European countries towards immigration vary systematically with characteristics such as age, education, skill level and urban/rural location (Card et al, 2005; Hainmueller and Hiscox, 2007). These studies find that, for all age groups, people with higher levels of education and occupational skills are more likely to favour migration. This has been explained by some economists on the grounds that the more educated are in more skilled jobs and therefore less threatened by migration. However, other research using the ESS finds that the relationship between education and attitudes towards migration is not related to skill level (Malchow-Moller et al, 2006). Moreover, this argument only holds where migrants are less educated than natives, yet it is found regardless of the skill level of migration (Hainmueller and Hiscox, 2007). In relation to the UK in particular, it does not explain variance in attitudes, which finds more skilled individuals are more positive about migration, since migrants have roughly the same or higher levels of education than the native population (Card et al, 2005).

Evidence from the UK

Only limited research has been carried out within the UK specifically, rather than across countries. However, recent polls on migration suggest that skills of migrants are a factor shaping public attitudes. Research in the UK also shows more support among the general public for migration from those whose skills are needed, with almost three-quarters of those polled in 2010 supported inward migration of doctors and nurses and more than half supported inward migration of care workers (Blinder, 2013). Other research, at European level also suggests that skilled migrants are perceived to be more desirable than non-skilled ones on non-economic grounds (Facchini and Mayda, 2012).

While economic reasons affect the views of those who are active in the labour market, research finds consistently that these issues, particularly those relating to skills, are not relevant for those who are not in the labour force (O'Rourke and Sinnott, 2006). Therefore, in relation to the UK, Dustmann's research using the British Social Attitudes Survey, suggests that labour market and welfare concerns, as opposed to 'racial', 'national identity' or prejudicial concerns are related to attitudes towards migration but only among skilled and highly educated workers (Dustmann, 2000).

The economic literature on attitudes towards migration is based on labour market status and perhaps places too much emphasis on the influence of logical self-interest, knowledge and facts, rather than perceptions. Some researchers have suggested that the strength of evidence may sway opinion. For example, in reviewing evidence relating to migration and innovation, Facchini and Mayda argue that: 'The effect of skilled migration on innovation activity is likely to be taken in great consideration by public opinion - especially in countries at the frontier of technological research, such as the US' (2012:188). However, there is a wealth of evidence around the economic benefits of migration, and research shows consistently that employers, for example, are strongly convinced of its economic benefits, indeed its necessity (George et al, 2012). To give credence to the power of knowledge assumes a straightforward relationship between fact and opinion, which may not exist in relation to immigration. Individuals who oppose migration may continue to ignore the evidence and base their attitudes on erroneous beliefs. As Card and colleagues point out, while there is little clear evidence that migration lowers wages, it is plausible that lower-skilled workers in particular may oppose migration, based on the belief that it will affect their economic opportunities.

In the UK this dissonance between business and public support for migration has been widely acknowledged in recent debates. Ben Page of Ipsos Mori notes that ‘... while most people do not hold entirely negative views about immigration, an individual’s perception of the benefits may be very different from the benefits envisioned by the Treasury or the Confederation of British Industry. Both these institutions have concluded that immigration has allowed Britain to remain competitive and encouraged economic growth with more benefits than disadvantages in terms of increased costs to public services saying ‘In the long run, migration to the UK is still likely to mean a net fiscal transfer to the native population’ (Page, 2009:149).

The divergence between political beliefs and personal experiences

Evidence of contradictions and tensions in beliefs and views about immigration is not restricted to economic benefits. In relation to social impacts, Blinder reports the somewhat paradoxical finding that migrants living in one’s own neighbourhood are the most popular with the general public, at odds with the general view that migration is harmful to Britain. As he states, ‘Apparently, much of the opposition to migration comes from general concerns about Britain as a whole rather than from direct, negative experiences in one’s own community’ (2013:8).

It is possible that this paradox also applies to economic and skills arguments around migration. Therefore, while individuals may believe there are negative impacts but that those at the level of their own workplace are positive. Our research set out to partly test this hypothesis: that individuals may hold some anti-immigration views but are more positive about their own workplace experiences. In particular, we wanted to explore individuals’ experiences of working with migrants, to obtain their own perspectives on this experience, including the skills and knowledge they have gained and also to discuss any drawbacks to migration from their point of view. The interviews therefore explored views on why employers recruit migrants, how employers benefit, and experiences of working with migrants - both positive and negative. See Appendix 4 for the focus group discussion guide.

4.3 Findings from the focus groups

Who we interviewed

We carried out 4 focus groups, each of 90 minutes duration, all during July 2013. We aimed to interview the ‘sceptical majority’ within social classes engaged in non-manual work A-C1. In order to discuss individual experiences of migration at workplace level, we selected individuals who currently work with migrants.

A total of 34 people took part, 17 men and 17 women. They ranged in age from 31 to 63, with those under 28 or over 65 excluded from the sample. Most were in social class B but a number were in classes A and C1. Other social class groups were not included in the sample. They worked in a wide range of sectors, including education, health, entertainment, retail, construction, hotels and catering, banking and business services, transport and social work. All were based in London. Ten were from ethnic minority groups, including African Caribbean, Asian and mixed heritage. Their pre-attendance scores for attitudes towards immigration⁵ ranged from 5 to 25, with an average of 13

⁵ We wish to thank IPPR who allowed us to use their screening questionnaire

and almost half scoring between 12 and 16 (see Appendix 2 for questions). One of the questions was specifically about jobs, 'Immigrants take jobs away from British workers'. Participants' scores on this measure were broadly similar to those of the other questions.

We also surveyed all participants on their views on skilled immigration, both at the beginning of the interview and after (see Appendix 3 for questions). Many participants scored highly, suggesting that attitudes towards skilled migration are different to other areas of impact. Scores for seven participants rose slightly between the first and second questionnaire, indicating a slightly positive effect of the focus group on attitudes towards skilled migration, however, the move was very small, at only 0.5 points and, in one case, the effect was negative.

Who is a 'migrant worker'

The focus groups discussed the question of 'who is a migrant worker?' with this raised by participants themselves in the first group and then prompted by us in subsequent ones. The general view was that migrants are individuals who come to work in the UK on either a temporary or permanent basis. There was little mention of refugees and asylum seekers throughout. Foreign students were not seen as migrants where they are here to study rather than to settle. Participants felt that while, in the past, migrants were seen as from ethnic minorities, they are now regarded as largely European. They explained this shift with reference to the scale of recent migration to the UK from Eastern Europe and Poland in particular. This contribution from one participant is typical of this view:

'I think the perception of a migrant has definitely shifted say from 10 or 15 years ago, because I think if you heard the word migrant you would think of someone who was ethnically different, black, Asian, Chinese, whereas nowadays it's more about people that are migrating from Europe or a part of Europe.' (2F2)

At the same time, some participants commented on the difference in attitudes within the UK towards white immigration from the commonwealth, in particular the perception of Australians and New Zealanders as almost 'ex pats' rather than migrants. This aside, the finding that 'migrant' is seen to refer to European entrants suggests that migration may be regarded in the public mind as separate from issues of race.

Migrant workers were also seen to occupy positions at both the top and the bottom of the labour market, with migrants seen as working in senior positions in foreign-owned companies, such as international banks. One participant, who had previously worked for a bank stated that,

'In international banks the entire senior management are migrants and you have to go quite a long way down the organisation before you find any Brits' (4M1).

At the same time they were seen to be concentrated in low skilled jobs in sectors such as agriculture, social care, hotels and catering. Some participants commented that they had thought in the past that migrants had to be skilled to gain entry to the UK, but that this had now changed.

These perceptions about migrants' roles were also drawn from their own experiences of the workplace, where many participants noted that the lowest and least skilled positions, for example in cleaning and catering, were carried out predominantly by migrants. Where examples were given of migrants in more senior roles, these were largely in banks or in schools and universities. In some

cases migrants were seen to have distinct roles, for example, one participant described how her employer recruited migrant architects from India for repetitive Computer Aided Drafting rather than design work, to reduce costs and maximise productivity.

Why employers recruit migrants: benefits and costs

The reasons why employers recruit migrants were discussed at some length in the focus groups. Participants did not feel employers are driven by narrow concerns, such as costs or skills needs, but that a range of reasons explain both the concentration of migrants in less skilled work, and their presence in some highly skilled roles. Much of the discussion focused, however, on lower skilled roles where three key themes emerged: the supply, lower cost and orientation to work of migrants.

Skills

One common theme from the focus groups was that employers recruit migrants where skills are in short supply, referring both to more highly skilled roles and unskilled labour. First, migration was seen as meeting needs for professional staff such as doctors and nurses. The UK and individual employers were seen to have failed to train sufficient numbers, and it was argued that employers are reluctant to pay for training when they can recruit ready-skilled migrants. Some participants viewed the UK education system as at fault, with a few participants of the view that it prepares the 'elite' and is insufficiently vocational. This was seen to some extent to be changing, with a perception that apprenticeship places are on the increase. Another view was that UK born do not value education as highly as some migrant groups and therefore do not gain the necessary skills to fill high level positions, therefore compelling to recruit migrants. In contrast, migrant families were seen to have high aspirations for their children, leading them to gain the professional qualifications that employers demand.

A number of participants referred to specific skill needs which migrants meet, including language skills and cultural understanding. Some participants who worked in health or social services talked in general terms about having a workforce which reflects the community served, although referred more to settled communities than to recent migrants. Discussion focused instead on business needs as a driver to recruitment of migrants. One participant explained how his role in an international bank had involved meeting with clients in Saudi Arabia, where Middle Eastern colleagues had been able to '... immediately build up a rapport there which I couldn't do, or other British people couldn't do' (3M2). Similarly, another respondent, working for an international consultancy firm stated:

'If you're a French national and you're dealing with a French company, 9 times out of 10 you have to be French, otherwise it's very hard.' (1M2)

Language was not seen as the most important factor, with participants in one group agreeing with the view of one respondent that 'It's about the values and ethos of the organisation and the cultural aspects as well that they try to maintain' (4F2).

While many participants believed that employers should be able to recruit migrants where there is an identified skills need, there was unease at the concentration of migrants in particular roles within the workplace, and particularly at all-migrant teams. There was particular concern where this was seen to result from networking and favouritism among migrants of the same nationality. A participant working for an international bank stated:

'There is good and there is bad. Because my work colleagues are multinational, most of them are from India. Going to my place, it's all Indians and when there's a position vacant, it's like a networking thing.' (1F5)

Cost

While specific skills were seen as a reason why some employers recruit migrants, cost was generally regarded as a more important factor and was seen to explain the predominance of migrants in low skilled work. Migrants were seen as being willing to work for less pay than native workers. They were seen as interested in working the maximum number of hours available and as less interested in the hourly rate. The view that migrants are willing to work for less than the minimum wage was held by many respondents. One participant who worked for a transport company explained that two companies hired predominantly UK and exclusively migrant workforces on different contracts for similar work:

'They employ the British people for 8 hours a day at let's say £8 an hour; the people from Bulgaria work 12 hours a day at £5 an hour. The ones employed by the British company get the bonus for bagging up all the newspapers and all that. The people who are not from Britain don't get the bonus.' (2M6)

Another respondent was less specific about circumstances but stated that:

'My home town is a small town in Somerset... What I am told is that migrants will work for less than the minimum wage as long as it is cash and the employers are complicit, it saves them money and basically cutting the locals out of the jobs.' (3M2)

The value of UK wages was also seen as higher to migrants than to natives, because wages are higher than in their countries of origin. Migrants were seen as principally concerned to save their UK earnings to spend on their return. Therefore the actual spending power of lower wages was seen as good for some migrants and to put non-migrants at a disadvantage. As one participant stated:

'You could work here in a low paid job all your life and never earn enough to pay for the deposit on renting a flat. But if you are from Lithuania, Estonia etc, you can save enough to actually go home and buy a house. So in some ways it disadvantages the locals.'(1M4)

Even where they were not seen to be saving to spend outside of the UK, some migrants were seen as having low out-goings because they share accommodation and do not have the same living expenses. Migrants were also seen as prepared to work for low pay and without sick pay, paid holidays and other benefits from lack of awareness of their rights. They were seen as vulnerable to exploitation by employers. As one participant, employed in Human Resources, stated:

'One of the reasons why employers do recruit people that are migrants is because people are less savvy and understanding about their rights..... There is a lack of knowledge and awareness that I think sometimes employers are able to take advantage of that.' (2F2)

One group discussed off-shoring as a cost-cutting exercise, with a participant describing how a whole team of an e-commerce business was based in India, and that this had been for reasons of cost rather than because of skills shortages or needs. This had been a frustrating experience for this respondent, whose employer had refused her request for a temporary transfer to India to improve their skills so that her team could work with them more effectively (3F3).

Locals don't apply

Participants in all the focus groups expressed the view that employers recruit migrants because local, non-migrant, workers do not apply for particular jobs. Some respondents spoke from experience in their own workplace, for example a health worker argued that for a cleaning vacancy:

'They are the only ones who are prepared to do the job, the only ones that turn up for interview.' (4M2)

Similarly, a project manager on a building project argued that his company could only recruit migrants for construction work in central London. He believed that this was because 'some people don't actually want to work' (4M3). A number of participants referred to stories they had read about in the press or seen on television, particularly involving agricultural work. One participant had himself hired migrant workers for seasonal work and said it had not been possible to recruit locals. A number of participants felt there is a resistance among the British population to working in manual occupations, feeling that a stigma is attached to such work. One view was that expectations of work are unrealistically high among the UK born.

Some respondents felt that welfare benefits make it difficult for people to move in and out of work, because low paid work can mean a lower income than claiming benefits. Some participants said they had experienced this difficulty themselves, where they had moved in and out of work and had their benefits stopped and re-started. Therefore, temporary seasonal work was seen as a potential problem for non-migrant workers. However, moving from benefits was not always seen as a financial calculation, with some participants feeling that there is a 'culture of benefits'.

Migrants work hard

Migrants were seen to work harder than non-migrants and to be attractive to employers for that reason. This was seen as partly related to cost, where migrants are paid less, but argued as a separate point. Some participants argued that migrants work harder than non-migrants and have a more positive attitude to work. Examples which participants gave included migrants in more skilled posts, for example as engineers, as well as in routine unskilled work. In contrast, British workers were described as 'taking more for granted', being 'lackadaisical' and as taking less pride in their work. These views were sometimes challenged by other participants. One respondent, a surveyor, said that 'some of the slackest people in the office have been from other countries' (2M5). Two participants in other groups also offered a different perspective:

'Can I say about the English being slackers? My Father used to work all over the world and was used to employing lots of people and he would say certain countries were very lazy, the local indigenous people so I don't think it is just something to do with this country, but the indigenous population are not putting themselves forward and committing themselves to work.' (3F1)

'Some of my best friends are English and most of my family. I am worried about any generalisation of a negative nature of a blanket variety really.... I think being worried about prejudicial stereotypes works both ways really.' (4M4)

There was therefore some disagreement about whether migrants have a better work ethic than non-migrants, with a number of participants feeling that the circumstances of migrants, rather than their personal qualities, affected their attitude towards work. It was also believed that migrants are better

at finding work than British workers. A number of participants believed that migrants find work through networking with other migrants:

'It is about being connected. The reason that all the labour in Victoria are Polish is that their mates were there before them, there was a seed group of people. Similarly most of the care workers in Whitchurch in Hampshire are African, the reason for that is their mates and their agency that work with them are there so their network is there. And the reason that the Poles are dominating in the horticultural areas, again largely their network.' (4M4)

A participant in the same group agreed, following this with:

'You will find that the folk who have got all the contracts for labour, for transport and everything are foreign and they will only pay foreign folk so it gradually gets to the point that the English can't get in at all.' (4M1)

The first respondent felt that non-migrants lose out by not having such connections, or the family support which he felt that migrants often benefit from. Therefore this discussion again raised the question of whether networking and group support give migrants an advantage.

Benefits to employees

Participants were largely positive about working with migrants and said they had benefited from working with them in a number of ways. A number said they enjoyed working with people from different backgrounds. Some said that migrants had helped them to look at work-related issues from a different perspective. A specific example of this was given by an architect who talked about the different approach of migrant colleagues:

'A lot of the people who are living in India have experienced the way that you use natural cooling within buildings... So there's that kind of difference on a very basic level about how you design something or just look at it in a different way. But there's also the ideas about how you think about doing something. The West has often got this very linear progress that you go through. It's very reductive approach where you analyse and go down to basic. Whereas when you get somebody from China, they'll maybe think about it as a more holistic because they have a completely different philosophy coming into it.' (1F4)

Language skills were valued by some participants, for example in the finance sector and in education. Also in education, craft skills of recent migrant teaching assistants and tutors from the Indian sub-continent were seen to enrich the curriculum in schools and adult education. A manager in the catering industry said that staff learned how to cook dishes from each others' cultures. Cultural knowledge and understanding was also seen to benefit teams, for example in health and social work. A specific example was given of appropriate behaviour when visiting the house of a practicing Muslim during Ramadan.

We asked participants about their experiences of working in diverse teams and whether they could tell us about any benefits and also any downsides which they had experienced. Overall, participants felt that they had benefited from working in diverse teams. Specific benefits were identified where migrants brought cultural knowledge and understanding to teams, for example in health and social work. A few participants said that the team benefited from improving its service to the (diverse) community. Some participants talked more generally of having a range of approaches resulting from different backgrounds of team members, for example a participant from the health sector explained:

'The team where I am in my new team I have only been there 4 months, we have an American and we have a New Zealander and they are just bringing a slightly different perspective on it all and different experiences to what we are doing. They bring things that you wouldn't necessarily find in a British person but I think sometimes just getting a different view on things actually means that the team is more creative.' (2F3)

A number of other respondents talked about different approaches and skills within diverse teams, and saw this as largely positive. However, it was also seen to sometimes lead to problems where individuals do not accept that a task can be approached differently. More generally, a number of participants said they simply enjoyed working with people with a range of backgrounds, for social reasons, that they were interested in other cultures, and especially food.

Some participants talked about different outlooks and attitudes towards work. A participant with experience of working on film sets had found the 'positive attitudes' of American workers a valuable counterpoint to the perceived negativity of British crew (2M3). Other participants agreed that different cultures behave differently at work. One participant, working for a large company in the hospitality sector, regretted that

'Everything is done the British way and so that results in a lot of tension in the office. You've got Spaniards, Italians who like to have a little bit of life and need something around them to be able to engage and work better, yet it is very much British. Everyone is quiet.... It's a very stiff environment' (4F4)

Different attitudes towards work were also seen to have drawbacks. For example, a respondent quoted earlier had found, while working as an office temp, that migrants had been reluctant to complain at poor working conditions, causing friction with non-migrant colleagues (2M3). He had found that 'the migrant worker just wants to get their head down and work'. One respondent gave a specific example of cultural conflict, where a caretaker of Indian origin was seen as having objections to reporting to a female supervisor (4F2). Another gave an example of doctor, also of Indian origin, not understanding a patient's circumstances:

'A lot of [overseas doctors] are just clueless about a British lifestyle. When I did gynaecology for example, there was this foreign trained Indian doctor and he came in and said to the lady who was in advanced labour and there was another lady sat next to her, and another bloke as well, he said "are you the husband?". And it was obvious, we knew that she was a lesbian, this was the birthing partner, he was the gay friend. It is teaching them little tips of what is kind of the norm.' (4M2)

Some basic difficulties of communication were reported by participants, for example a project manager on a building site emphasised the need for a Polish speaking supervisor to convey safety instructions. Another participant, who had hired migrants for farm work, said that relationships can become difficult when sections of the workforce speak little English and have no other language in common. He also reported antagonism between groups, although did not explain the reason for this. A number of other participants also said that some migrants in their workplaces did not have sufficiently strong language skills to understand subtleties and nuances or, sometimes, to communicate effectively. One respondent, a clerical officer in the civil service, felt that tensions which arose from such problems should be seen in a wider context. He felt that the workplace has generally become more tense because of the economic climate and job insecurity (4M4).

Disadvantages of migration for British workers

Some participants believed that migration has led to lower salaries in some industries and occupations, impacting on living standards and prospects for UK born workers. As we described earlier, there was a view that, because UK currency is worth more than that of their home country, wages are relatively high for migrants, who are seen to be saving to spend on their return. One participant also felt that migration appears to lead to unemployment, where migrants have jobs and UK-born do not, and that this fuels tension and racism. He felt this resulted despite migrants largely taking jobs which natives do not want to do (4M3).

One of the strongest themes to emerge from the focus groups was concern that migration has exacerbated competition for more skilled and professional jobs. Competition, particularly from within Europe, was seen to have reduced opportunities for UK-born young people in sectors including health, architecture, banking and graduate level jobs more widely. Rather than train new recruits, employers were seen to be hiring more experienced and cheaper candidates from overseas, some of whom had additional financial backing from their families. Some respondents felt it was 'unfair' that this should happen when UK graduates have borrowed significant funds for their education, and had their education supported by the state, as one participant stated:

'If you have taken money from the state to get your education and you have done well in your education I do think you should stand a better chance of getting a job than perhaps a migrant worker.' (3F1)

We referred earlier to the belief that migrants make greater use of networks to find jobs. Some participants believed this was true of professional as well as unskilled work and that it puts UK-born graduates at a disadvantage. A number of respondents expressed the view that migration is forcing young people to improve their employability, or to 'up their game', which some saw as no bad thing. One group talked about how young people are now competing in a 'global market place'. It was argued that, to do so, young people need to change their behaviour and their outlook in a number of respects. A number of participants felt that young people leave the UK education system with inadequate numerical and maths skills, and that this needs to be addressed at school level. More generally, young people were seen as poorly equipped for the workplace and to have aspirations which are ill-matched to real opportunities available to them. One respondent represented others in stating:

'Everyone has been given this weight of expectation that they can do whatever they want and they can succeed in doing whatever they want. They haven't necessarily been given the skills to do it so, if something like manual work comes along, people think they are too good for it, they should be doing something else. We have a generation coming through who look very much at, we are going to start at the top, it's that X factor, we can be famous in 5 minutes.' (3M3)

Manual work was seen as accorded too low status, and rejected as an option by young people suited to such work. At the same time, apprenticeships and other opportunities for skilled work were seen as in short supply, though on the increase. Participants felt that these issues need to be addressed by the education system but also by employers.

The workplace vs. the community

While we did not set out to discuss views on the effects of migration on communities, the issue arose during the first two focus groups and we then raised the issue specifically in the second two. While, as with diversity in the workplace, a range of views were expressed, some general themes emerged. Most participants lived in areas of London with migrant populations, though not all. There was a view that some communities have changed significantly. While a number of participants saw the main change as resulting from housing changes, particularly council house sales and re-development, there was a view that migration has resulted in less cohesion in some communities. While some did cite their own area of London as an example, others referred to Lincolnshire as an example of where migration had caused tensions. The participants had not themselves visited these areas but had read and seen media reports.

In contrast, migration and diversity in the workplace was seen to work well. This was explained with reference to the organisation and management of workplaces.

'I think the identity of working in a company is different to a community isn't it. You have got a common goal as it were, you haven't got that competition. We are all there to try and achieve the same thing really, so where you come from shouldn't really enter into it, you are all there to serve the same purpose. I think in a community that maybe has got lost.' (3F4)

A participant in one group explained how he had been involved in a project to improve community cohesion through encouraging a greater sense of belonging, via a 'home zone'. (3M1)

4.4 Key points

While individuals may hold views which are opposed to immigration, their views about skilled migration tend to be more positive. Although many agreed with the statement that *'immigrants take jobs away from British workers'* they also agreed with the statement that *'Employers should be able to recruit migrants to work in jobs where their skills are needed'*.

While specific skills needs were seen as a reason for recruiting migrants, some participants expressed the view that some British people would prefer a life on benefits than in low paid work and see manual labour as demeaning. However, others believed that moving from benefits to low paid and insecure work can be difficult.

Participants also believed that employers' hiring practices are sometimes driven by cost considerations. Therefore, migrants were seen as willing to work for less, to be unaware of their rights and vulnerable to exploitation. This was seen to put UK-born workers and jobseekers at a disadvantage.

Individuals were uneasy about all-migrant teams which they observed in construction in some banks. There was particular concern that this might result from practices which exclude UK-born workers, for example networking among migrants and preferential recruitment.

Participants generally agreed with the statement that *'Employees can benefit from working with migrants through exchanging skills, knowledge and ways of working'*. In line with this, their

experiences of working with migrants were generally very positive. They talked of a range of benefits of working with people from different backgrounds, and who brought different perspectives and approaches. They also saw benefits to service users, for example in health and social work.

Participants were also inclined to agree with the statement that *'Teams which are diverse, in terms of gender, race and background, can often be more productive than ones where everyone is the same'*. Many participants said they enjoyed working with migrants and that mixed teams were sometimes more positive and lively. Diverse teams were also seen to sometimes bring challenges, particularly in term of communication.

Participants expressed concern for the perceived impact of migration on opportunities for young people born in the UK. The availability of migrants was seen to act as a disincentive for employers to train. Another view was that young people are ill-prepared for employment, and lack the technical and employability skills that employers demand. The education system and young people themselves were seen as in need of change.

There was a general consensus that the UK born now need to 'up their game' as labour markets become increasingly global. This was viewed as a negative development but a fact of life.

The effect of immigration on communities was discussed briefly within the focus groups. Some participants felt that immigration has contributed to lower levels of social cohesion in some communities, but was not the only factor. In comparison, diversity and migration in the workplace were seen to work well.

Chapter 5 quantitative evidence of the impact of migration on productivity

5.1 Introduction

The aim of the quantitative research was to investigate the relationship between immigrants and productivity in the UK to see if the effects which have been observed through qualitative research with employers are shown statistically in the available UK data. Specifically, our aim in the quantitative research was to examine the relationship between the presence of migrants in the workforce and overall productivity. We constructed a dataset combining firm and individual data, aggregated at sector and region level. In order to account for the direct impact of immigration on the average skill level of the workforce, the main estimates control, amongst other aspects, for various measures of migrant and native skill levels, since we are particularly interested in indirect impacts (“spillovers”). We start with reviewing the relevant empirical evidence on the effect of immigration on productivity. We then present the econometric methodology and describe the data. The results section discusses both statistical and estimation results.

The only empirical study which documents the UK experience has been carried out by Kangasniemi et al (2012) who compared the UK experience to the very different migration experience of Spain. Using output data from EUKLEMS⁶ and immigrants share from the Labour Force Survey (LFS) at sectoral level from 1996 to 2005 this study found a small but barely significant positive impact of immigrants in the UK, while the effect of immigrants on productivity is significantly negative in Spain.

Our approach differs from that of Kangasniemi and colleagues (2012) in several ways. First of all it accounts for the regional dimension, which is particularly important given that the UK economy is characterized by an uneven concentration of immigrants in higher productivity regions. For example, in 2011 London had the greatest number of immigrants, corresponding to 37% of all immigrants (Rienzo and Vargas-Silva, 2012). Secondly, unlike Kangasniemi et al (2012), the productivity measures are derived from the Annual Respondents Database (ARD), a firm-level dataset that contains detailed information on firms in the UK, and that allows a more accurate measure of productivity to be derived, accounting for both sector and region dimensions. Additionally, while Kangasniemi et al (2012) use the log of Gross Value Added (GVA) as measure of productivity, our focus here is on labour productivity. Our research also differs from previous one in controlling for the level of education⁷ of migrants and natives. Our research also used a different econometric methodology.

Empirical methodology

The effect of immigration on productivity may be positive or negative, depending on characteristics of the migrants in question, institutional arrangements and the responses of natives (Huber et al, 2010). In order to analyse the association between immigration and average labour productivity, we adopted a pooled OLS estimation model. This approach differs from the most relevant empirical

⁶ EUKLEMS is a European Union database for capital (K), labour (L), energy (E), material (M) and service inputs (S).

⁷ Although Kangasniemi et al (2012) control for the “quality” of labour, the measure they adopt is based on the combination of both the hourly wage paid to immigrants and UK born, and the number of hours worked by the two groups.

research, such as Peri (2012) and Kangasniemi et al (2012) that implement a standard production-function including capital⁸ in their main estimations.

In the following presentation of our findings, our unit of analysis is sector-region. All estimations are weighted by the total employment in each sector s , region r and year t . We consider each sector s in each region r and year t as producing a homogenous, perfectly tradable output.

We wish to estimate the impact of immigration on the change in labour productivity. The baseline estimation is based on the one adopted by Peri (2012) though some adjustments to the original specification have been made, specifically unlike Peri (2012) the specification control for both firm level, and workers characteristics; this is because we are not trying to estimate the direct impact of migration on productivity (through its impact on workers measurable characteristics) but rather the broader, “spillover” impacts on the productivity of the entire workplace. Therefore the main econometric equation written as⁹:

$$1) \quad \Delta \text{Ln}Y_{sry} = \beta_0 + \beta_1 \Delta L_{srt}^m + \beta_2 x_{sry} + R_{sy} + S_{ry} + Y_{rs} + \varepsilon_{sry}$$

Where $\Delta \text{Ln}Y$ indicates the change between year t and year $t-1$ in real logged labour productivity (LnY) derived as the ratio of average real Gross Value Added (GVA)¹⁰ over average employment size and deflated using sectoral Producer Price Index at 2007 level.

ΔL indicates the change in immigrants (m) relative to the total employment. We also include region (R), sector (S) and year (Y) dummy variables in most of the specification. x_{sry} represents a vector of both firm level variables (expenditure for computer services,, foreign ownership) and workers characteristics (years of schooling, total hours worked¹¹) that varies over specifications. ε is the error term. Controls (expenditure for computer services, foreign ownership, years of schooling, and total hours worked) included in the main estimation results presented and discussed in table 3 and 4 are in difference.

Data

The data for the current analysis has been constructed by combining two aggregated datasets: the Annual Respondents Database (ARD) and the Labour Force Survey (LFS) from 1997 to 2007. The unit of analysis is a region-by sector, therefore the two datasets have been aggregated at those levels.

The ARD is the micro data based on a compulsory business survey. ARD is a census of large businesses, and a sample of smaller ones, located in the UK. Firms of Northern Ireland are not included in the ARD, therefore this region is excluded from the current analysis. For each year the ARD consists of two files. What is known as the ‘selected file’ that contains detailed information on a sample of establishments that are sent inquiry forms. The second file comprises the ‘non-selected’ (non-sampled) establishments and only basic information such as employment, location, industry

⁸ The available firm level data we are using do not have any information on capital.

⁹As pointed out by Kangasniemi et al (2012) establishing the direction of causality with productivity is an issue and endogeneity is particular relevant when examining the effect of migration on productivity. However, the OLS results of this quantitative analysis though informative and accurate, do not account for endogeneity issues. Therefore, caution is needed when interpreting the effects of immigration on productivity in terms of causality.

¹⁰GVA is the constant price output measure of the UK national accounts. It corresponds to the total sales minus all the intermediate inputs used to produce the good or service (ONS, 2002).

¹¹ The inclusion of actual hours worked separately for migrants and UK-Born in the regressions is an additional contribution to the existing literature, specifically with respect to the Kangasniemi et al (2012) papers. Since they assume that the average number of hours of work are the same for migrants as for natives. Instead, as documented in the descriptive statistics, this does not seem to be the case with migrants tending to work longer hours than natives.

grouping and foreign ownership status is recorded. Some 14,000-19,000 establishments are selected each year, based on a stratified sampling scheme. The scheme tends to vary from year to year, but during the period under consideration, establishments with more 100 employees were always sampled. Since 1997 this survey has collected over 50,000 records per year from most industries and covers a wide range of economic variables. ARD reports information of sector and region. The sectors included in this analysis are the following: Construction; Electricity, gas and water supply; Hotel and restaurants; Manufacturing; real estate; Transport, storage and communication; Wholesale; Computer and related activities¹² (CRA hereafter). Due to lack of data for most of the years, Financial Sector is not included in the analysis¹³.

The regions are classified as follows: South East and London¹⁴; East Anglia; South West: West Midlands; East Midlands; Yorkshire and Humberside; North West; North, Wales and Scotland. The main variables used from the ARD are Gross Value Added (GVA) and the number of workers in a firm. Other variables used from the ARD are: average of purchase of computer services (corresponding to the average amount for consultancy charges on computer software and hardware), the average expenses for Research and Development, the percentage of firms with foreign ownership derived from the Foreign Ownership of the firm defined as the nationality of ultimate ownership¹⁵ of the firm.

Because ARD does not contain any information of foreign workers in the firm, variables related to immigrants as well as workers characteristics are derived from the LFS. The LFS is the largest survey of households living at private addresses and in NHS accommodations in the UK and is conducted by the Office for National Statistics (ONS). Information is recorded in four quarters; each quarter's LFS sample of 53,000 UK households consists of five "waves", each of approximately 11,000 private households. Each wave is interviewed in five successive quarters, and earnings information is only recorded in waves 1 and 5. A single-stage sample of addresses with a random start and constant interval is drawn from the Postcode Address File (PAF) sorted by postcode. The LFS excludes those who do not live in households, such as those in hotels, caravan parks and other communal establishments. The LFS is therefore likely to underestimate the UK population of recent migrants.

The samples used focus on labour force workers (i.e. 16-59 for women and 16-64 for men) who are both part time and full time employees, considering only their main job. Immigrant is defined as someone who was born outside of the UK irrespective of the time of age on arrival. The total number of both immigrant and UK-born has been calculated using one quarter of the LFS only and by using the appropriate weights available from the LFS¹⁶.

Additional variables derived from the LFS are the average age, years spent in the country, average numbers of hours worked in a week, and the average years of schooling. The latter variable is

¹² The Computer and activities, part of the Information and Communication SIC 2007 includes the following industry class categories: Computer hardware consultancy; Computer software consultancy; Data Processing; Data base activities; Repair of office and computer; Other computer activities.

¹³ Other sector sectors excluded are: Education; Human health and Social work; Public administration and Defence. Moreover, due to the small size Agriculture and Mining have been excluded too.

¹⁴ The ARD data do not allow to separate London and South East. However, this does not affect the results given the similarity in London and South East in terms of both immigrants, and economic performance.

¹⁵ The ultimate ownership is a single shareholder that owns at least 25% of a firm, directly or indirectly via other firms. The ultimate ownership can be private individual or another company. If there is no such shareholder a company can also be owned by itself.

¹⁶ Due to the small rotation in the LFS, the use of one quarter along with the weights ensures the accuracy of the actual number of workers and reduces the magnitude in measurement errors.

computed following the existing literature (MMW, 2012) based on the age at which individual left full time education. One of the main issues arising when aggregating immigrants and natives based on level of education is that, due to the heterogeneity of educational systems, there is not a one-to-one correspondence in years of schooling. One problem with using LFS categories for migrants is that foreign educational qualifications are classified in the “other” category. As explained by MMW (2012), there is good reason to believe that many immigrants in the “other” category actually have quite high levels of education. The LFS employs an alternative definition of educational level, namely, the highest level of education. To create educational category measured as years of education, we combined information on “age left school” and “other”. There is a consensus in the UK economic literature to attribute workers into three categories based on the age they left full-time education: compulsory, for those who left fulltime education at age 16 or under; intermediate for those who left fulltime education between 17 and 20; and higher for those who left full time education at age 21 or older.

5.2 Results

Descriptive Statistics

As pointed out, because the effect of immigration on productivity depends, amongst other things, on the characteristics of migrants we start by presenting some descriptive statistics depicting trends and characteristics of immigrants by sectors, as well as presenting basic correlation between immigrants and productivity.

Figure 1 plots the share of immigrant workers from 1997 to 2007 by sectors, and documents that their presence in the labour market has been increasing over time in most of the sectors. The CRA is characterized by a higher percentage of immigrant workers, which may partly reflect the higher demand for immigrants in the IT occupations that dominates this division¹⁷. The presence of immigrants is particularly high and has been increasing more in the Financial Sector and in the Hotel and Restaurants. The latter experiences the highest percentage of immigrants with nearly 21% of all workers in 2007 being migrants. However, the above sectors attract different immigrants. In fact, while immigrants employed in the financial sector are high skilled and high educated, those employed in the hotel and restaurants sector are usually low skilled/lower educated immigrants, and are those who arrived in the UK only recently. This trend usually mirrors the fact that immigrants start working in sectors that have low skill requirements as a stepping stone to learn language, acquire knowledge of the labour market before moving to different sectors that are more in line with their skills.

The different types of immigrants that are concentrated across the sectors are confirmed in Figure 2 that plots the average years of schooling for immigrants and UK born. The figure displays a well-known picture that is immigrants are on average more educated than UK born (MMW, 2012; Wadsworth, 2010). The only exception is the Hotel and Restaurants being characterized by a smaller educational gap compared to other sectors due to the low skills requirement.

¹⁷ Recently Hopkins and Levy (2012) pointed out that the occupation with the largest number of Ties 2 migrants was IT and Software professionals comprising 5.7% of all UK employment in that occupation.

The existence of different performance of immigrants and UK born in the labour markets summarized by the average numbers of hours worked per week as a measure to quantify the labour supply and differences, if any, between the two groups. For this purpose Figure 3 plots the average hours worked per week by immigrants and UK born. Despite some variations that may due to the inclusion of part-time workers, on average immigrants tend to work longer hours than UK born. The only exception is the transport, storage and communication sector. The higher variation in the electricity, gas and water supply is likely to be due to measurement error, since this sector not only cover a small fraction of the whole economy but also is characterized by the lowest shares of immigrants.

Figure 4, 5 and 6 present the scatter plots showing the correlation between share of migrants and (log) of real productivity over the time period analyzed. Figure 4 includes all sectors and displays an overall positive correlation between immigrant shares and productivity. Given the higher educational levels of migrants, this is not surprising. However, patterns vary when considering sectors separately as shown in Figure 5. A positive trend can be detected in Real Estate, Manufacturing as well as in Wholesale.

Table 1 summarizes the correlation between productivity and immigrant shares by sector between 1997 and 2007. The correlation is always positive and varies in magnitude across the sectors. The smaller correlation is experienced in Electricity, Gas and Water, this is not surprising since this is the sector with the smaller percentage of migrants, and in some years in specific region, no migrants appear to be employed. The higher correlation is found for Manufacturing followed by Real Estate.

Table 2 (a and b) provides an overview of the characteristics of migrants in 2007 by focusing on two specific divisions, CRA, and the Pharmaceutical¹⁸, and two industries, Financial Intermediates and Education¹⁹. The reasons for this specific analysis is related to the fact that these divisions/sectors are crucial to the UK economy and characterized by high productivity. Previous research (George et al 2012) has documented that computer services, and chemicals and pharmaceuticals are highly ranked for productivity, being amongst the top 20 sectors in terms of average labour productivity. The same research has also shown that migrants are more likely to have skills that are particularly important to sectors where the UK has a comparative (or competitive) advantage, contributing substantially to productivity growth (either directly, because individuals with such skills have high productivity; or indirectly, because they are essential to increase the productivity of the broader sector or whole economy).

Table 2a reports characteristics of migrants compared to UK born in both divisions and industries and shows that in 2007 nearly one out of four workers employed in the CRA are migrants (18%). The

¹⁸The Pharmaceutical, part of the Manufacturing industry, includes two classes: the Basic pharmaceutical manufacture and the Pharmaceutical preparations management.

¹⁹ The industrial classes of the Financial Intermediation industry includes the following: central banking; banks; building societies; financial leasing; other credit granting; unit, investment trusts, holding; securities dealing for self; life insurance; pension funding; non-life insurance; financial market administration; securities, fund management; other financial intermediates Activities; other insurance activities.

The Education industry includes the following classes: primary and secondary education, state; primary and secondary education, private, non-maintained; technical, vocational 2nd-ary education; special education, state, maintained; special education, private non-maintained; sub-degree level education; first & post degree level education; driving school activities; adult, other education.

percentage falls to nearly 13% in the financial intermediation, while ranges around 10% in both pharmaceutical and education.

Analyzing the gender distribution, the CRA appears to be mostly men oriented division, with percentage of women being low and similar (around 20%) between immigrants and UK-born. However, the presence of women increases in the other division and sectors. In fact, amongst all immigrants workers employed in the pharmaceutical nearly 46% are female, with the percentage of UK-born being only slightly lower. The different distribution of female across industries is remarked in both the financial sector and the education sector, with the presence of UK-Born women being higher than that of immigrants' counterpart. The table also confirms that in all cases at least 59% of migrants have a higher level of education, with pharmaceutical attracting high skilled immigrants. As already documented in Figure 3, the table confirms that immigrants tend to work longer hours compared to UK-born. Additionally, the concentration of immigrants is higher in London, while UK-born are more evenly distribute across the country. The table also documents that about one third of immigrants employed in these divisions/industries arrived in the UK within 5 years and between 41 to 65 percent of immigrants studied in the UK.

Table 2b compares the top 5 occupations of immigrants and UK born in the 2 divisions and 2 sectors analyzed. Immigrants are particularly concentrated in the professional occupations. This is especially true for both the CRA, and financial intermediates. In the top 5 occupations of the pharmaceutical division migrants are also concentrated in low skilled occupation (Packers, bottlers, canner, filler). Occupations that see the higher concentration of UK born do not differ much in the CRA, while more differences prevail in the pharmaceutical and education.

The next section explores further the indirect relationship between immigrants and productivity by applying econometric estimation techniques.

Estimation Results

Tables 3 and 4 report the main estimations based on equation (1). The dependent variable used is the differenced log of real productivity. The tables report the coefficients for immigration captured by the change in employment due to immigrants in each sector, region and year. Each cell reports the result of a different regression that includes different controls, and the heteroskedasticity-robust standard errors clustered by region. Table 3 shows positive and significant correlation between the change in the immigrant share and productivity growth, while including few controls. Column (1) of Table 3 shows the main effect of immigration on productivity to be positive and highly significant, when having as controls year, sector and region dummies. When controlling for the quality of the labour supply of both migrants and UK-born, measured as the average years of schooling, the coefficient of immigration remains positive though decreases in significance (Column 2). The average years of schooling of UK-born is significant (and positive), while that of immigrant is positive but not significant. However, this is not surprising given that the UK-born represent the vast majority of the employment. The positive estimates of the average years of schooling is consistent with recent evidence (Holland et al, 2013) showing that in a similar time period (1994-2004) for the UK at least one-third of the increase in labour productivity can be attributed to the accumulation of graduate skills in the labour force. Columns 3 to 5 of the same table add as controls the quantity of labour supply, as well as the average of expenses in computer and the change if foreign ownership. The estimated effect of the change in immigrant share on the change of labour productivity remains

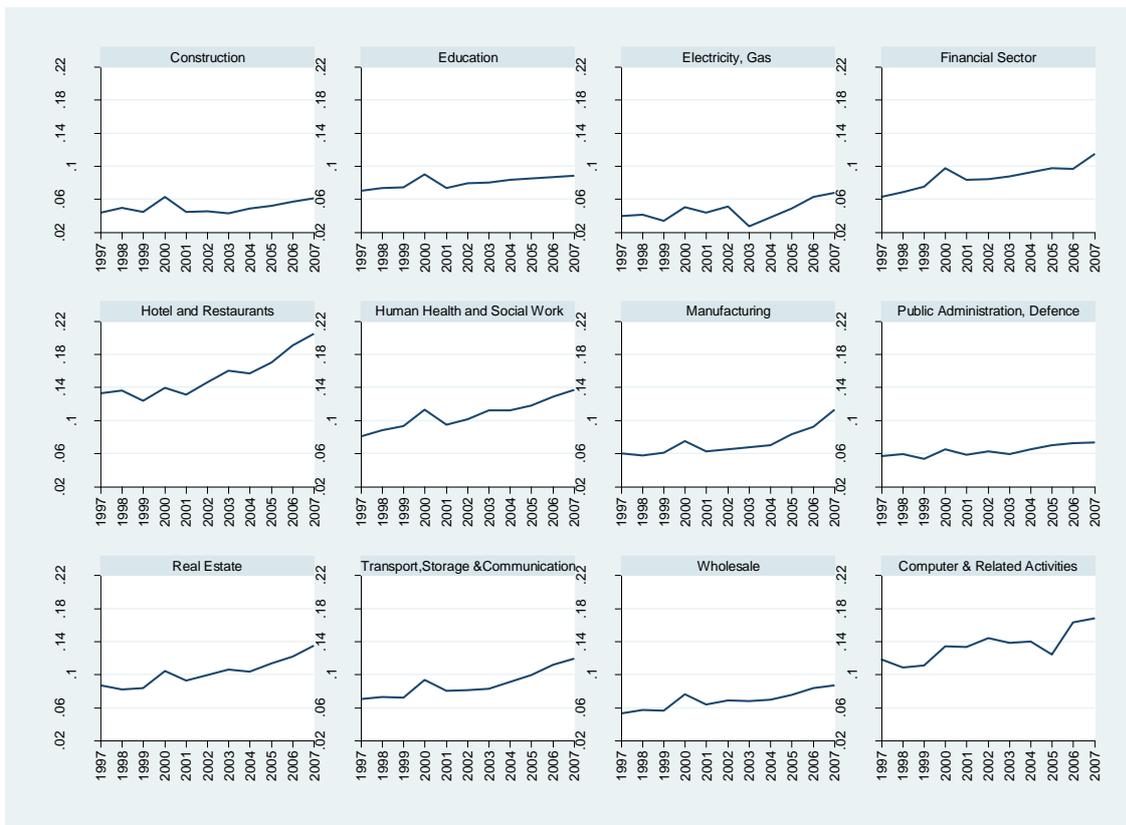
significant and positive²⁰ (Column 5). The effect is robust in magnitude and significance to the inclusion of a London-South East dummy that displays a positive and significant effect on productivity (Column 6). However, even though the effect may appear to be high, the econometric approach does not capture the impact of immigration on productivity, but rather an association, or a short-term correlation. Specifically, these large coefficients **may suggest that growth industries attract migrants**. This, in fact, confirms the qualitative research that has shown that employers tend to recruit migrants to where the supply of skills from within the UK, or among UK born is deficient; to recruit high level skills which are in short supply world-wide; and to complement the skills of non-migrants. Since one of the aims of this empirical research is to estimate the role of immigration in the CRA division, Table 4 presents the basic estimations by adding a dummy variable equal to 1 for the CRA. The effect is measured relative to all other sectors. The effect of CRA on labour productivity is positive but not significant. The estimated coefficient of immigration on productivity remains the same in magnitude and while becoming more significant.

Although the current OLS regressions should be interpreted with care, since they do not correct for possible endogeneity, they certainly document a robust and positive relationship between the increasing share of immigrants in the workforce and productivity growth in the UK. The estimated coefficients are robust, amongst other controls, to both quality and quantity of immigrants and natives labour supply; in other words, there is evidence suggesting that there may be some generalised indirect impact of the immigrant share of the workforce on overall productivity. The quantitative analysis implies that between 1997 to 2007 labour productivity in the UK has certainly benefited for the presence of immigrants

It is worth examining the quantitative significance of the coefficient estimates. Table 3 (column 4 to 6) and 4 (column 1 and 2) implies that an increase of 10 percent in the immigrant share is associated with a [0.6 to 0.9%] increase in sector level productivity. It should be noted that this is the contemporaneous (short-term) correlation; the data is not sufficiently rich to allow us to measure longer-term impacts. Given that the data is only at sector and region (rather than company) level, and there is likely to be some mismeasurement, larger impacts cannot be ruled out, especially over the longer term. Equally, it is possible that sectors where productivity is growing sharply might also be those where the immigration share is increasing, so the causality could be operating in reverse. Overall, we conclude that the evidence is consistent with the hypothesis that an increasing share of immigrants in the workforce boosts labour productivity, not just through the direct impact on labour quality but through broader, “spillover” effects on the whole workforce; but that little weight should be attached to our quantitative estimates at this stage. Further research, in particular using firm level data, is likely to be required to identify and estimate such impacts reliably, although qualitative research is more able to provide insights into ways in which productivity impacts are experienced at workplace level.

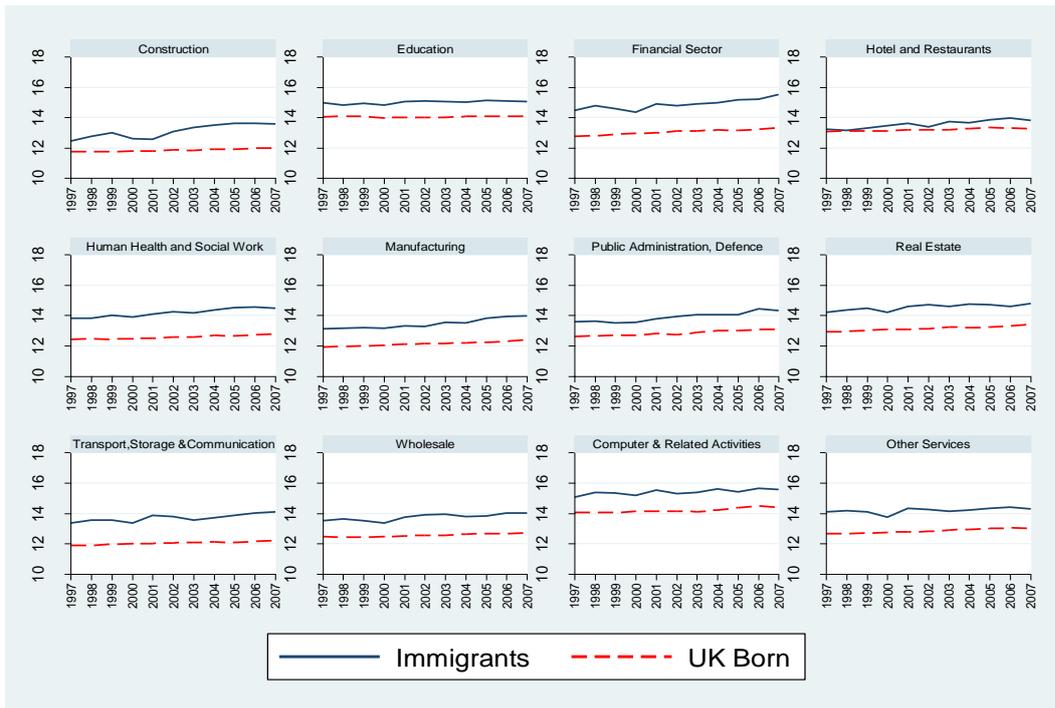
²⁰ Additional robustness check not reported but available upon request, use as controls the level of variables rather than the differenced variables. The magnitude and significance of immigration coefficient remains very similar.

Figure 1: Share of Immigrants by sector, 1997-2007



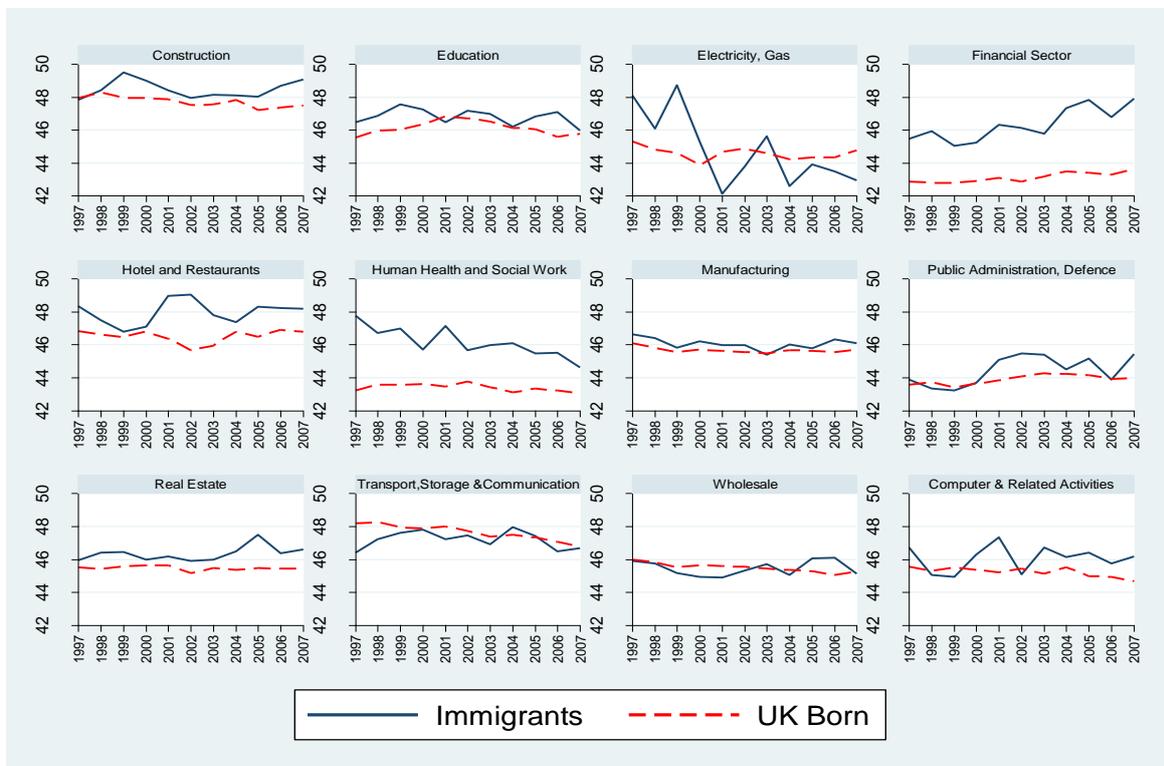
Notes: based on Labour Force Survey, Sample is based on men (16-64) and women (16-59) working full-time and part time, employees and main job only.

Figure 2: Average Years of schooling



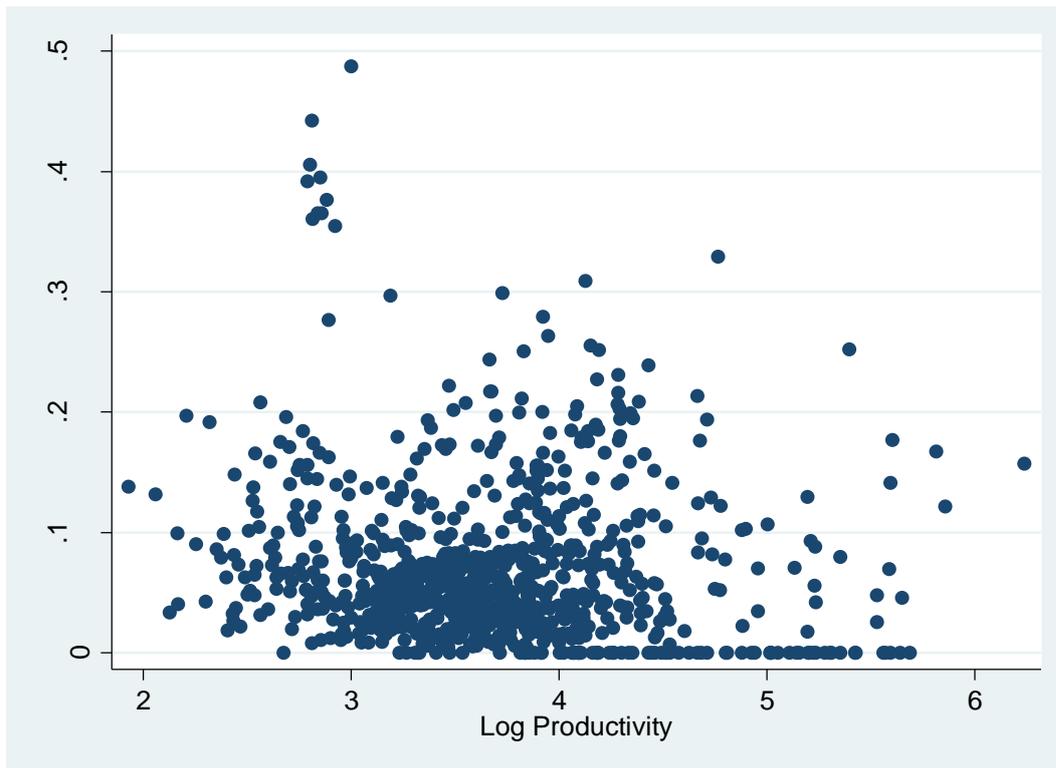
Notes: based on Labour Force Survey, Sample is based on men (16-64) and women (16-59) working full-time and part time, employees and main job only.

Figure 3: Average hours worked, include overtime, excludes part time



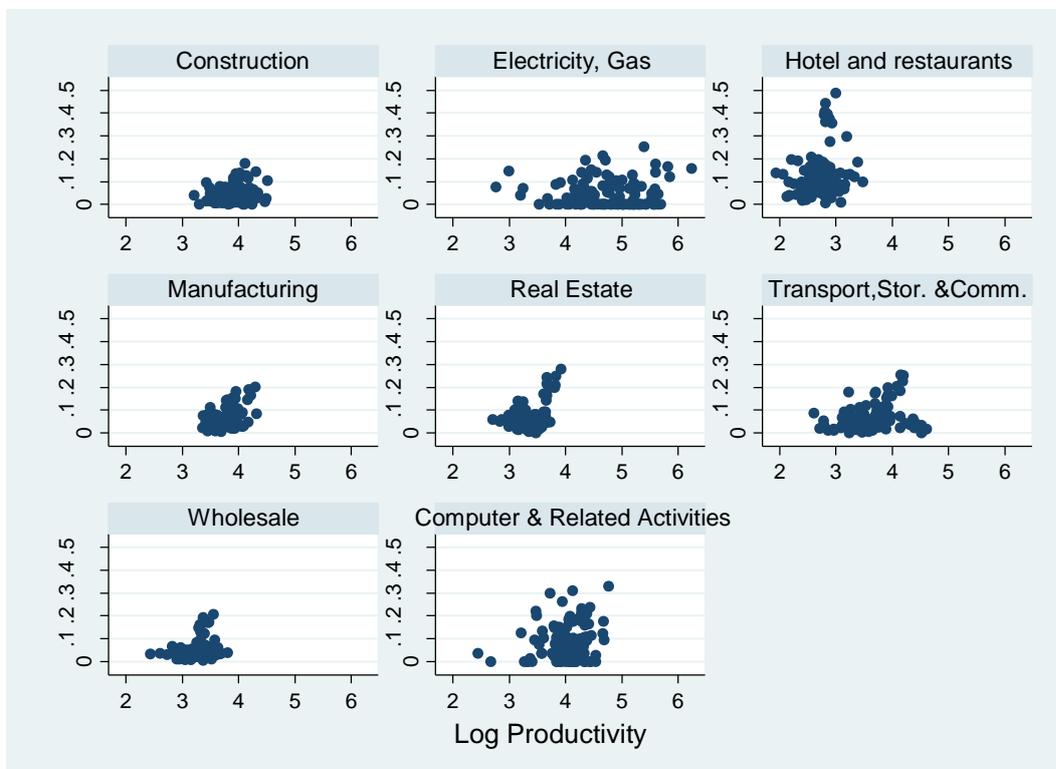
Notes: based on Labour Force Survey, Sample is based on men (16-64) and women (16-59) working full-time and part time, employees and main job only.

Figure 4: Scatter plot: immigration shares and productivity.



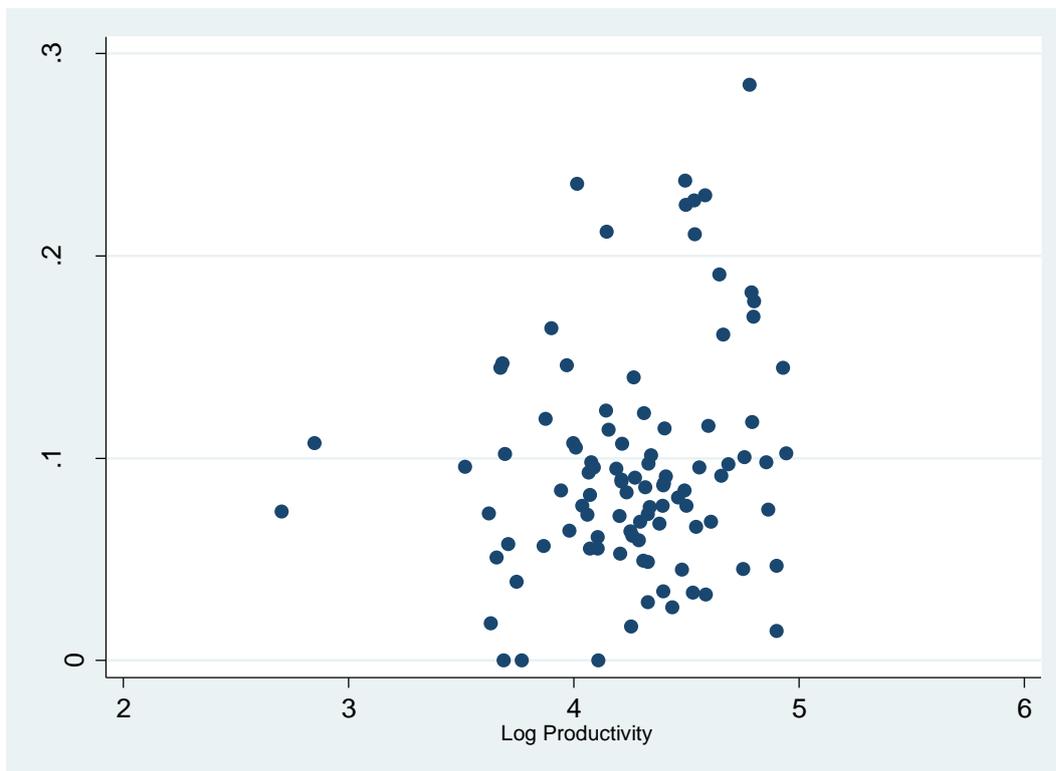
Notes: based on Labour Force Survey, and Annual Respondents Database.

Figure 5: Scatter plot immigration shares and productivity, by main sectors.



Notes: based on Labour Force Survey, and Annual Respondents Database.

Figure 6: Scatter plot for Computer and Related Activities, 1997-2007.



Notes: based on Labour Force Survey, and Annual Respondents Database.

Table 1: Correlation between Immigrants and Productivity, 1997-2007

Sector	Correlation
Construction	0.24
Electricity, Gas	0.01
Hotel and restaurants	0.12
Manufacturing	0.45
Real Estate	0.29
Transport, Storage & Communication	0.19
Wholesale	0.23
Computer & Related Activities	0.14

Notes: based on Labour Force Survey, and Annual Respondents Database.

Table 2a: Characteristics of workers

	Computer and Related Activities		Pharmaceutical		Financial Intermediates		Education	
	Immigrants	UK Born	Immigrants	UK Born	Immigrants	UK Born	Immigrants	UK Born
% of immigrants	18.1		10.3		12.88		9.3	
% of Female	19.8	20.1	46.5	43.5	37.91	49.28	64.6	73.2
Average Age	35.4	38.3	37.6	39.3	40.6	42.7	40.7	42.7
% of workers with degree or more	69.0	46.6	73.1	44.4	68.7	25.9	58.7	43.0
Average Hours worked per week (total actual hours in main job)	45.6	43.9	44.4	42.3	46.2	41.2	40.7	39.2
% in London	43.5	13.9	25.6	7.92	60.7	15.9	33.2	9.2
% of immigrants that spent 5 or less years in the UK	35.0		23.4		30.2		21.4	
% of immigrants who studied in the UK	41.3		64.8		48.7		50.6	

Table 2b: Top 5 occupations, immigrants and UK born.

Computer and related Activity		Pharmaceutical		Financial Intermediates		Education	
A. Immigrants							
Software professionals	28.8	Bio scientists and biochemists	8.8	Fin. & invest. analyst & advisers	12.3	Education assistants	12.5
It strategy and planning professionals	19.5	Packers, bottlers, canners, filler	8.6	Financial managers & chartered sec.	10.4	Secondary education teaching professionals	12.4
Info & communication technological manager	17.9	Chemists	8.4	Financial institution managers	8.3	Higher education teaching professionals	12.0
Marketing and sales managers	3.5	Laboratory technicians	6.4	Counter clerks	5.5	Primary & nursery education teaching professionals	8.0
It operations technicians	3.3	Research and development managers	6.0	Brokers	5.0	Teaching professionals	5.7
B. UK-Born							
software professionals	22.4	Bio scientists and biochemists	7.4	counter clerks	11.5	secondary education teaching professionals	15.2
info & communication technology manager	16.2	sales representatives	6.2	financial institution managers	10.3	educational assistants	14.9
it strategy and planning professional	14.2	chemist and related process operative	5.8	Financial & invest. analyst & advisers	9.2	primary & nursery educational teaching profs	14.5
it operations technicians	5.1	marketing and sales managers	5.7	pensions and insurance clerical	5.4	further education teaching professional	4.3
marketing and sales managers	5.1	laboratory technicians	5.5	accountants wages clerk, book keeper	4.5	teaching professionals	3.9

Table 3: Impact of immigration on productivity, 1997-2007**Dependent variable:** Δ Log real labour productivity

	(1)	(2)	(3)	(4)	(5)	(6)
Δ Immigration Share	0.079*** (0.020)	0.057* (0.026)	0.136*** (0.033)	0.094** (0.022)	0.065** (0.022)	0.066** (0.021)
Δ Years of schooling Immigrants		0.015 (0.021)		0.015 (0.020)	0.014 (0.020)	0.018 (0.020)
Δ Years of schooling UK-Born		0.159** (0.066)		0.148* (0.072)	0.130* (0.067)	0.118* (0.058)
Δ total hours worked Foreign-born			-0.003 (0.003)	-0.003 (0.002)	-0.003 (0.002)	-0.003 (0.002)
Δ total hours worked UK-Born			-0.004 (0.012)	-0.001 (0.013)	-0.003 (0.011)	-0.003 (0.011)
Δ purch. of computer					0.000** (0.000)	0.000** (0.000)
Δ Foreign Ownership					0.267** (0.091)	0.267** (0.096)
London-South East						0.142*** (0.042)
Constant	0.118 (0.069)	0.225** (0.082)	0.047 (0.064)	0.017 (0.071)	0.038 (0.064)	-0.101* (0.052)
Year	Yes	Yes	Yes	Yes	Yes	Yes
Sector	Yes	Yes	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes	Yes	Yes
Observations	792	771	682	682	682	682
R-squared	0.222	0.248	0.261	0.277	0.301	0.284

Notes: based on Labour Force Survey, and Annual Respondents Database.

Standard errors in (.) clustered at region. Significance level *** p<0.01, ** p<0.05, * p<0.1. The effect of London-South East is relative to all other regions.

Table 4 Impact of immigration on productivity, 1997-2007, with CRA dummyDependent variable: Δ Log real labour productivity

	(1)	(2)
Δ Immigration Share	0.067*** (0.020)	0.068*** (0.019)
Δ purch. of computer	0.000** (0.000)	0.000** (0.000)
Δ Foreign Ownership	0.256** (0.084)	0.258** (0.084)
Δ total hours worked Foreign-born	-0.003 (0.002)	-0.004 (0.002)
Δ total hours worked UK-Born	-0.004 (0.012)	-0.005 (0.012)
Year of Schooling Immigrants	0.014 (0.020)	0.018 (0.019)
Years of Schooling UK-Born	0.135* (0.066)	0.122* (0.057)
CRA	0.022 (0.082)	0.018 (0.080)
London South-East		0.135*** (0.037)
Constant	0.061 (0.046)	-0.070* (0.032)
Observations	682	682
R-squared	0.288	0.271

Notes: based on Labour Force Survey, and Annual Respondents Database.

Standard errors in (.) clustered at region. Significance level *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The effect of London-South East is relative to all other regions.

5.3 Conclusions

The benefits that inflows of migrants bring to the UK are under-researched and may be under-appreciated. This applies particularly to quantitative estimates of the impacts of migration at workforce, sectoral and regional level. Yet these impacts have an important bearing on current policy debates on the benefits or drawbacks of migration for the UK. Our analysis may help to contribute in a more positive way to understanding of the effects of migration on productivity. Our findings are based on constructing a database that takes a sectoral and regional approach over a period of increased migration into the UK - 1997 to 2007.

Our data analysis shows four main results in relation to migration and productivity:

- Descriptive analysis documents that between 1997 and 2007 the presence of immigrants has been increasing in most sectors, with immigrants being on average more educated and tending to work longer hours than natives;
- There is a positive correlation between the share of immigrants in region-sectors and labour productivity. Despite the variation across the sectors analysed, the correlation is higher in Manufacturing and Real Estate.

- Our analyses show a positive and significant association between immigration on labour productivity growth in the time period analysed. A 1% change in immigrant share in employment is associated with an increase in labour productivity of 0.06-0.07%.
- Restricting the analysis to the Computer and Related Activities, the effect of immigrants on productivity is higher, but becomes statistically not significant when controlling for workers characteristics and region.

Overall, these results point to a positive and significant association between immigration and productivity, even after controlling for workforce characteristics. Although, given data limitations, it would be premature to conclude that the effect is necessarily causal, its magnitude and significance are robust to different specifications.. Although existing evidence of international literature is mixed, our results are in line with those for the US provided by Peri (2012) who similarly documents a positive and significant effect of immigration on productivity.

Our results are particularly notable in that they attempt to abstract from the direct effect resulting from migrants (on average higher) skill levels, suggesting that the indirect positive impacts of immigration on firms highlighted in the qualitative research may indeed boost productivity at firm level. However, given that we do not have data on the migrant-native composition of the workforce of individual firms (the quantitative analysis is at region-sector level) the results must be regarded as preliminary at this stage. Further research is also required to establish the nature of any causal relationship.

Chapter 6 Conclusions

In this final part of the report we draw some conclusions from the findings. We present evidence for productivity gains from migration, both quantitative and qualitative. We pay some attention to public understandings of productivity gains from immigration, how these result from employers' practices and how employers experience these gains. Alongside this looking at how the public understands these gains we look at their concerns with employers' practices in relation to immigration and productivity.

Recruitment of skilled migrants

Employers said they recruited from outside the UK for three main reasons: where the supply of skills from within the UK, or among UK born is deficient; to recruit high level skills which are in short supply world-wide; and to complement the skills of non-migrants.

All case study organisations said they had to look beyond the UK for the most highly skilled individuals, although the frequency with which they did this varied. Recruitment of specialist skills and knowledge was frequently practised internationally or sourced for temporary periods through Intra-Company Transfers (ICTs). Pharmaceutical companies said that a global jobs market exists within a range of specialist areas, and this was also found in some sections of Higher Education. The success of companies, institutions and the UK economy more widely was seen as dependent to some degree on recruiting the best applicants.

When focus group participants were asked 'who is a migrant worker?' many talked of Eastern Europeans who work in low skilled, low paid sectors within the UK. This was at odds with the views of employers in the research, who saw skilled migration as most important in meeting their needs. The focus group discussions indicate that public concern and knowledge about migration is largely focused on low skilled work, yet it is only part of the picture; in fact migrant workers' skill levels are on average higher than those of the native born. This has important implications for migrants' role in the UK economy.

The views of focus group participants on skilled migration were very different to those which they had on migration more generally. While some held views which were opposed to immigration, their views about skilled migration were much more positive. When asked for their opinions on immigration before attending the focus group, many said they believed that Immigrants take jobs away from British workers. However, when asked to complete a short survey at the start of the focus group, many agreed with the statement that '*Employers should be able to recruit migrants to work in jobs where their skills are needed*'.

Migration skills and productivity

Existing quantitative evidence has found that migrants increase human capital stock of receiving countries as well as increasing the supply of specific skills and aptitudes. Evidence to date also shows

benefits gained through knowledge of markets and economies of home countries and connections with these. Both of these effects were identified in the qualitative research with employers.

Existing studies have found immigration impacts firms through three main processes:

- complementarity of skills, aptitudes and knowledge between migrants and natives, which raises the overall skill level of workplaces and firms
- transmission of skills, aptitudes and knowledge from migrant to non-migrant colleagues
- increasing the incentive for natives to acquire certain skills by boosting competition, either between migrants and non-migrants with similar skills, or more generally

Each of these effects was reported by employers to exist within their organisations, and by individuals participating in focus groups. In particular, that migrants possess skills which are different in some respects to non-migrants, which are complementary and improve the performance of work teams. Other ways in which migrants increase productivity which were also evident to some degree in the case study research, include the contribution of migrants to innovation and business growth. This has been evidenced by the involvement of migrants in research in patent applications but in the case studies was apparent in the involvement of migrants in product development and overseas marketing strategies.

Our own data analysis shows four main results in relation to migration and productivity:

- Descriptive analysis documents that between 1997 and 2007 the presence of immigrants has been increasing in most sectors, with immigrants being on average more educated and tending to work longer hours than natives;
- There is a positive correlation between the share of immigrants in region-sectors and labour productivity.
- Our analyses show a positive and significant effect of immigration on labour productivity growth in the time period analysed. Although not causal, results show that a 1% change in immigrant share in employment is associated with an estimated coefficient ranging from 0.06 to 0.07.

Skills shortages and skill needs

Skills shortages were a theme of interviews with employers and in the focus groups with the public. Where employers recruit to meet shortages, these include skills gaps resulting from failure of the UK to produce sufficient numbers, for example engineers to teach on Higher Education Courses. Recruitment from overseas has also enabled some case study organisations, to expand, which would not have been possible without overseas recruitment. Again, this was particularly true of universities. Migrants also filled 'niche' positions where specialist skills are in short supply world-wide.

Focus group participants believed that migrants are sometimes recruited for specific skills and sometimes because employers can't recruit from within the UK. While accepting that some specialist posts are difficult to fill, focus group participants also believed that skills shortages result from an

unwillingness to work among some sections of the UK population. Some participants expressed the view that some British people would prefer a life on benefits than in low paid work, and others felt that manual labour is seen as undesirable and demeaning. However, a number of others believed that moving from benefits to low paid and insecure work could be difficult.

When discussing the disadvantages of immigration, participants expressed particular concern for its perceived impact on opportunities for young people born in the UK. Some felt it has become easy for employers to recruit ready-trained and experienced employees from all over Europe and that training is disincentivised. At the same time, evidence from interviews with employers, and the earlier work conducted by NIESR for the Migration Advisory Committee, suggests that employers do not recruit migrants as a substitute for training in the skills they need (George et al, 2012). There is a considerable gap between employers' views and public perceptions on employers' motivations for recruiting migrants.

Another frequently expressed view was that young people are ill-prepared for employment, and lack the technical and employability skills that employers demand. Participants argued that the UK education system and individuals themselves need to change so that the UK born do not lose out in the jobs market. This was not raised by employers in the research, although has been identified in research in low skilled sectors (Green et al, 2013) and in current debates. Employers and the education sector do not appear to articulate clearly their efforts. In relation to skilled and highly skilled roles, there is a need for more robust and reliable evidence on the question of whether employers in general believe that young British people lack the skills and qualities which they need, or whether such evidence is anecdotal and overblown by the media.

Employers in international institutions, particularly the banks and pharmaceutical companies said they need people who can 'think global', who have a perspective on and understanding of the international nature of the business. They valued individuals who had first-hand experience of working in different national bases. The Intra-Company Transfer route was seen as particularly beneficial in facilitating relatively short-term stays to gain international experience. Focus group participants recognised that this experience was valuable to employers as markets have become globalised. There was a general consensus among focus group participants that the UK born now need to 'up their game' as labour markets become increasingly global. This was not generally viewed as a negative development. Migration is about mobility, not just about immigration to the UK. Opportunities for mobility both in post-compulsory education and in employment, should to be included in careers education programmes, so that young people are aware of how they can benefit.

'Migrants are cheaper'

While seeing skills as a factor in the recruitment of migrants, participants also believed that employers' hiring practices are sometimes driven by cost considerations. Therefore, migrants were seen as willing to work for less, to be unaware of their rights and vulnerable to exploitation. This was seen to put UK-born workers and jobseekers at a disadvantage. As with other areas of concern these were expressed largely within the context of recruitment of migrants to low skilled sectors. For employers, cost was a less important consideration overall. However, there were important exceptions to this: the temporary hiring practices within the IT sector are based on costs, particularly to reduce down-time between projects. Some employers also said that overseas applicants find the

jobs on offer more attractive than natives because of poorer opportunities in their countries of origin. Employers also said there were sometimes additional costs of recruiting migrants, including of relocation and settling in. Focus group participants tended to see cost issues as more straightforwardly in employers' favour, and were strongly inclined to frame decisions about cost and migration within the narrative of 'migrants are cheaper'.

Complementary skills

There was evidence from the employer case studies that migrants' skills are often complementary to rather than substituting for those of UK born employees. Therefore in IT migrants take on senior technical roles while customer-facing roles are filled by natives. In banking, the need for language skills and cultural understanding has led to recruitment of migrants to some roles, particularly in positions dealing with their country of origin. Similarly, in pharmaceutical companies, migrants advise on healthcare and medical products and their delivery mechanisms. Aside from meeting skills needs, employers identified a range of business benefits to recruiting migrants. Some employers said that having migrants with connections in countries of origin helps to attract business to the UK. These included universities who were able to team up with academic teams around the world to secure funding for cross-national projects.

The recruitment of migrants in roles and with skills which complement those of native workers was found more acceptable to focus group participants than substitution of locals by migrants. Conversely, focus group participants were uneasy about all-migrant teams. Some had observed such teams in construction and in senior posts in some banks. There was particular concern where this was seen to result from networking among migrants, discriminatory recruitment practices and exclusion of UK born workers. The factors which lead to all-migrant teams include the nature of work, contract terms, inflexibility within the benefits system and the role of employment agencies. These are not easily addressed, especially through migration policy, but clearly influence public attitudes towards migration.

When surveyed as part of the interview, focus group participants generally agreed with the statement that *'Employees can benefit from working with migrants through exchanging skills, knowledge and ways of working'*. Reflecting this view, their experiences of working with migrants were generally very positive. Participants identified a range of benefits of working with people from different backgrounds and who brought different perspectives and approaches. They also saw benefits to end users of services, for example in health and social work. Our findings suggest that many UK-born employees have benefited from working with migrants.

Productivity of diverse teams

Productivity gains have also been found to result from diverse teams. Nathan (2011) and Lee and Nathan (2013) provide evidence that a culturally diverse setting due to the presence of migrants contributes to innovation and impacts on other aspects of firm performance. We asked employers and focus group participants for their views on this.

Employers believe that the different experiences and perspectives of migrants create teams with different strengths and made workplaces more dynamic. The report includes a number of examples

of how employers benefit from the perspectives and approaches of UK born and migrant employees. These benefits were readily acknowledged by focus group participants. When surveyed at the beginning and end of the interview, focus group participants generally agreed with the statement that *'Teams which are diverse, in terms of gender, race and background, can often be more productive than ones where everyone is the same'*. It is also possible that many who work in diverse teams give little thought to this feature of their working life.

Many participants said they enjoyed working with migrants, feeling that mixed teams were sometimes more positive and lively. However, diverse teams were also seen to sometimes bring challenges, in particular for communications, where language skills and cultural understanding were deficient. These challenges were also reported by employers, but were generally felt by both employers and focus group participants to be relatively minor and outweighed by the benefits. Both employers and focus group participants identified some downsides to recruiting migrants which are likely to affect productivity.

Clearly, experiences of immigration are not confined to the labour market and workplace. The effect on communities was raised by participants in the first focus groups and was prompted in later ones. Some participants felt that immigration has contributed to lower levels of social cohesion in some communities but that, at least in London, policy changes in housing probably had a greater impact. In the workplace, diversity and migration were seen to work well.

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Appendix 1 Topic guide with employers

Understanding the impacts of migration

- NIESR is an independent research organisation carrying out the research with funding from Barrow Cadbury Trust, NASSCOM and US-based Unbound Philanthropy
- Aim is to explore the contribution of migrants to organisations and whether and how non-migrants and the workforce as a whole benefits from their presence
- The focus is on all migrants, EU and non-EU but we would like to be able to identify distinctions where these exist
- The research is also including analysis of statistical data on productivity and migration
- Confidentiality: everything they say will be treated in confidence and neither they nor the organisation will be identified in any report without their permission
- Is there anything they would like to ask/say before we start the interview?
- Do they agree to the interview being recorded?

Section 1 Background

Get as much as possible in advance from website

1. Can you start by telling me about the company/organisation?

 products/services
 single/multi-site
 UK/international
2. How many people are employed on site and in the organisation as whole?
(approximations are fine)
3. What are your key specialist professional and skills groups (not including admin, HR etc. both here and in the organisation as a whole?)
4. Have your employee numbers or skill mix changed much in the last few years?
 Numbers
 Skill groups
 Why these changes
5. Are there plans for short-medium term changes?
 e.g.
 plans for growth,
 re-positioning in sector,
 improved efficiency/higher product quality,
 upgrading products and services
 moving into new markets for products and services

Section 2 Recruiting migrants

Explain that we want to know about their practices in relation to recruitment of migrants. We're interested in recruitment through visas from outside the EU, recruitment from within the EU and also temporary transfer through the Intra-Company Transfer (ICT) route.

6. In what job roles have you **recruited** migrants or moved them through the ICT route?
7. First, why do you recruit or transfer migrants for these roles?
Is it to meet your needs for specific skills?

If lack of UK applicants - why is this? (probe for short-term contracts, wages
If problem with quality of UK applicants - why is this? (probe for suitability of qualifications, experience, other criteria)
8. Are they recruited to train other staff?
(for ICTs) Do they come to the UK for their own training and development?
9. What methods do you use to recruit migrants
Do you use any particular methods other than your standard approaches?
Have you targeted migrants if you cannot find UK workers with the right skills?
Used recruitment agencies?
Used third party to help with recruitment?
10. Can you say something about their (demographic) characteristics?

What are the nationalities of these employees?
Are they from within or outside the EEA, and which countries?
Gender/age mix?
11. What would you say are the benefits to the organisation of recruiting from outside the UK?
12. Are there any cost advantages or disadvantages to recruiting migrants?
(eg keeping wage levels down, relocation costs)
13. What are the costs of transferring employees via ICTs (relocation costs, settling in)

Section 3 Skills and qualities of migrant employees

Note: this is a key section of the interview

14. How do the skills, knowledge and qualifications of migrant recruits (including ICT) compare with those of non-migrants who they are working alongside?

Probe:
are they in areas of shortage?
Are their skills better matched to certain roles or functions in the organisation?

15. How does their experience compare with that of non-migrants who they are working alongside?
16. If their experience is different, in what ways does it differ?
17. If their experience is of particular value to the organisation, can you explain how?
Probe for examples of the value of migrants' skills
18. To employers who recruit to meet skills gaps/shortages:

If you were able to recruit from within the UK/UK nationals would you still recruit migrants?
If yes, why?
19. Do migrants differ from non-migrants in any of the following ways?
If yes, can you explain how?
 - effort
 - hours worked (eg staying late)
 - flexibility
 - willingness to learn
 - enthusiasm/engagement
 - creativity/new ideas
 - team working
 - leadership
20. Is their different cultural understanding of any particular value to the organisation?
If yes, can you explain how?
21. Do migrants skills and knowledge have benefits for tapping into particular markets for goods or services (eg services for ethnic/cultural groups)

If yes, ask for specific examples

Section 4 Transfer of skills and qualities between migrants and non-migrants

Note, also a key section of the interview

22. We've already talked about whether migrants and those on ICTs are responsible for training other members of staff. Other than any formal responsibility, do migrants pass on particular skills and knowledge to other staff?
23. If migrants do pass on particular skills and knowledge, what kinds of skills and knowledge do they pass on?

If not mentioned, probe for technical skills as well as cultural/soft skills
And how do they pass it on?
24. Do migrants pass on any other qualities to other staff (eg attitudes, engagement, commitment work ethic)?

If yes, what other qualities?
And how do they pass it on?

25. If responses indicate that migrants are benefiting the skills, approach etc. of other staff, is it individual migrants who have this effect, or do the benefits result from having a significant migrant workforce?
26. Are there benefits to having diverse teams (specifically of migrants/non-migrants)?
Probe for what these benefits are
27. Do you think a diverse workforce is more likely to be more productive or more likely to be more innovative?

If yes, ask for examples which illustrate this

Section 5 Future plans and policy on migration

28. What are your plans for future recruitment using visas?
Are you planning to change your current practice in any way?
If yes, how and why?
29. And what are your plans for future use of Intra-Company transfers?
Are you planning to change your current practice in any way?
If yes, how and why?
30. Have changes in migration policy affected the organisation?
If yes, how and what action have you taken?
31. How would any further restrictions on migration, either through the visa route or Intra-Company transfers affect the organisation?
32. What would be the effects of a reduction in the recruitment of migrants or temporary transfers?
On the organisation
On staff
33. How would the organisation respond?
Probes: potential for training, send employees on overseas placements
34. Could any particular policy measures reduce the need for you to recruit migrants?
Probes: greater investment/support for training, changes in the education system, more preparation of school/HE leavers for work
35. Is there anything else you would like to add?

Thanks etc

Appendix 2 Pre-focus group questions (telephone recruitment)

Q. On a scale of 1-5 (where 1 is strongly disagree and 5 is strongly agree, how far do you agree with the following statements?

	SCORE
There are too many immigrants in Britain	
Laws on immigration should be much tougher	
Immigrants take jobs away from British workers	
Immigrants receive preferential treatment in accessing housing and public services	
I am concerned about too many cultures coming into the country and lack of cohesion	
TOTAL	

Appendix 3 Focus group survey

Skilled migration to the UK

Please answer the following questions by ticking the box which most reflects your views

1. Employers should be able to recruit migrants to work in jobs where their skills are needed

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

Don't know/no opinion

2. Employees can benefit from working with migrants through exchanging skills, knowledge and ways of working

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

Don't know/no opinion

3. Teams which are diverse, in terms of gender, race and background, can often be more productive than ones where everyone is the same

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

Don't know/no opinion

